

*In the opinion of Wilentz, Goldman & Spitzer, P.A., Bond Counsel, under existing statutes, regulations, rulings and court decisions, and assuming continuing compliance by the Authority with certain requirements described herein, interest on the Series 2017 A Bonds is not includable in gross income for Federal income tax purposes pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the “Code”) and is not treated as a preference item under Section 57 of the Code for purposes of calculating the Federal alternative minimum tax imposed on individuals and corporations. Under existing laws of the State of New Jersey, interest on the Series 2017 A Bonds and any gain on the sale thereof are not includable in gross income under the New Jersey Gross Income Tax Act. For a more complete discussion, see “TAX MATTERS” herein.*



\$600,000,000

**NEW JERSEY TURNPIKE AUTHORITY**  
**Turnpike Revenue Bonds, Series 2017 A**

**Dated: Date of Delivery****Due: January 1, as shown on the inside front cover**

This Official Statement has been prepared to provide information relating to the issuance by the New Jersey Turnpike Authority (the “Authority”) of its \$600,000,000 aggregate principal amount of Turnpike Revenue Bonds, Series 2017 A (the “Series 2017 A Bonds”). The Bank of New York Mellon, Woodland Park, New Jersey, will serve as the Trustee, Paying Agent and Registrar for the Series 2017 A Bonds.

The Series 2017 A Bonds will be issued in fully registered form without coupons, and, when issued, will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York (“DTC”). DTC will act as securities depository for the Series 2017 A Bonds, as more fully described herein. Individual purchases of the Series 2017 A Bonds will be made in book-entry form only in denominations of \$5,000 or any integral multiples thereof. Purchasers of the Series 2017 A Bonds will not receive certificates representing their interest therein.

Interest on the Series 2017 A Bonds will accrue from their Date of Delivery, and will be payable semiannually on each January 1 and July 1, commencing on July 1, 2017, until prior redemption or maturity, and will be calculated on the basis of a 360-day year of twelve 30-day months. The Series 2017 A Bonds will bear interest at the interest rates per annum set forth on the inside front cover page of this Official Statement.

The Series 2017 A Bonds are being issued pursuant to the New Jersey Turnpike Authority Act of 1948 (Chapter 454 of the Laws of New Jersey of 1948), as amended and supplemented (the “Act”), the Turnpike Revenue Bond Resolution adopted by the Authority on August 20, 1991, as amended, restated and supplemented (the “General Bond Resolution”), including as supplemented by the Series 2016 Turnpike Revenue Bond Resolution adopted by the Authority on September 27, 2016 (the “Series 2016 Resolution”), and a Certificate of Determination to be executed by the Executive Director of the Authority prior to the issuance of the Series 2017 A Bonds (the “Certificate of Determination” and, together with the General Bond Resolution and the Series 2016 Resolution, the “Resolution”). The Series 2017 A Bonds will be payable from and secured by a lien on and pledge of the Pledged Revenues of the Turnpike System on a parity with all Bonds Outstanding under the Resolution from time to time, and the Authority’s reimbursement and payment obligations under certain Credit Facilities and Qualified Swaps (as such terms are defined in the Resolution).

The Series 2017 A Bonds are subject to redemption prior to maturity at such prices and pursuant to such terms as are described herein. See “THE SERIES 2017 A BONDS – Redemption Prior to Maturity” herein.

The Series 2017 A Bonds are being issued by the Authority to (i) pay the costs of Projects permitted or authorized under the Act and the Resolution, (ii) make a deposit into the Debt Reserve Fund, and (iii) pay the costs of issuance of the Series 2017 A Bonds, all as more fully described herein.

**THE SERIES 2017 A BONDS ARE REVENUE OBLIGATIONS OF THE AUTHORITY. THE SERIES 2017 A BONDS ARE NOT A DEBT OR LIABILITY OF THE STATE OF NEW JERSEY OR OF ANY POLITICAL SUBDIVISION THEREOF (OTHER THAN THE AUTHORITY), AND NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE STATE OF NEW JERSEY OR OF ANY POLITICAL SUBDIVISION THEREOF IS PLEDGED TO THE PAYMENT OF THE SERIES 2017 A BONDS. THE AUTHORITY HAS NO TAXING POWER.**

Selected information is presented on this cover page for the convenience of the user in brief or summary form. To make an informed decision regarding the Series 2017 A Bonds, a prospective purchaser should read this Official Statement in its entirety.

*The Series 2017 A Bonds are offered when, as and if issued by the Authority and received by the Underwriters and subject to the approval of legality thereof by Wilentz, Goldman & Spitzer, P.A., Woodbridge, New Jersey, Bond Counsel to the Authority. Certain legal matters will be passed upon for the Authority by Bruce A. Harris, Esq., General Counsel for the Authority. Certain legal matters will be passed upon for the Underwriters by their counsel, Gibbons P.C., Newark, New Jersey. Hilltop Securities, New York, New York is acting as Financial Advisor to the Authority. It is expected that the Series 2017 A Bonds will be available for delivery through DTC on or about April 11, 2017.*

**GOLDMAN, SACHS & CO.****Raymond James****J.P. MORGAN****Stifel****U.S. Bancorp Investments, Inc.**

Dated: March 29, 2017

**\$600,000,000**  
**NEW JERSEY TURNPIKE AUTHORITY**  
**Turnpike Revenue Bonds, Series 2017 A**

<b><u>Maturity</u></b> <b><u>(January 1)</u></b>	<b><u>Principal</u></b> <b><u>Amount</u></b>	<b><u>Interest</u></b> <b><u>Rate</u></b>	<b><u>Yield</u></b>	<b><u>CUSIP**</u></b>
2027	\$ 59,220,000	5.00%	2.63%	6461396K6
2028	14,560,000	5.00	2.79*	6461396L4
2029	69,705,000	5.00	2.90*	6461396M2
2030	60,060,000	5.00	3.03*	6461396N0
2031	66,665,000	5.00	3.13*	6461396P5
2032	70,000,000	5.00	3.21*	6461396Q3
2033	93,555,000	5.00	3.27*	6461396R1
2034	102,175,000	5.00	3.33*	6461396S9
2035	11,300,000	3.50	3.68	6461396V2
2035	13,700,000	4.00	3.52*	6461396U4
2035	20,115,000	5.00	3.37*	6461396T7
2036	18,945,000	3.50	3.72	6461396W0

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\* Yield to first optional redemption date of January 1, 2027

\*\* Registered trademark of American Bankers Association. CUSIP numbers are provided by Standard & Poor's, CUSIP Service Bureau, a division of The McGraw-Hill Companies, Inc. The CUSIP numbers are being provided solely for the convenience of the holders of the Series 2016 A Bonds only and the Authority does not make any representation with respect to such numbers or undertake any responsibility for their accuracy. The CUSIP numbers are subject to being changed after the issuance of the Series 2016 A Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of the Series 2016 A Bonds.

# **NEW JERSEY TURNPIKE AUTHORITY**

## **COMMISSIONERS**

RICHARD T. HAMMER, *Chairman*

RONALD GRAVINO, *Vice Chairman*

MICHAEL R. DuPONT, *Treasurer*

RAYMOND M. POCINO

ULISES E. DIAZ

DANIEL F. BECHT

JOHN D. MINELLA

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## **EXECUTIVE STAFF**

JOSEPH W. MROZEK, *Executive Director*

JOHN F. O'HERN, *Chief Operating Officer  
and Deputy Executive Director*

DONNA MANUELLI, *Chief Financial Officer*

IN CONNECTION WITH THE OFFERING OF THE SERIES 2017 A BONDS, THE UNDERWRITERS MAY OVER ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF SUCH BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZATION, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

No dealer, broker, salesman, or any other person has been authorized by the Authority 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 must not be relied upon as having been authorized by the Authority. 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 Series 2017 A Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale.

The Series 2017 A Bonds have not been registered under the Securities Act of 1933, as amended, and the Resolution has not been qualified under the Trust Indenture Act of 1939, as amended, in reliance upon certain exemptions contained in such Federal laws. In making an investment decision, investors must rely upon their own examination of the Series 2017 A Bonds and the security therefor, including an analysis of the risks involved. The Series 2017 A Bonds have not been recommended by any Federal or state securities commission or regulatory authority. The registration, qualification or exemption of the Series 2017 A Bonds in accordance with applicable provisions of securities laws of the various jurisdictions in which the Series 2017 A Bonds have been registered, qualified or exempted cannot be regarded as a recommendation thereof. Neither such jurisdictions nor any of their agencies have passed upon the merits of the Series 2017 A Bonds or the adequacy, accuracy or completeness of this Official Statement. Any representation to the contrary may be a criminal offense.

References in this Official Statement to statutes, laws, rules, regulations, resolutions, agreements, reports and documents do not purport to be comprehensive or definitive, and all such references are qualified in their entirety by reference to the particular document, the full text of which may contain qualifications of and exceptions to statements made herein. This Official Statement is distributed in connection with the sale of the Series 2017 A Bonds referred to herein and may not be reproduced or used, in whole or in part, for any other purpose.

The order and placement of materials in this Official Statement, including the Appendices, are not to be deemed to be a determination of relevance, materiality or importance, and this Official Statement, including the Appendices, must be considered in its entirety. The offering of the Series 2017 A Bonds is made only by means of this entire Official Statement.

The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstance, create any implication that there has been no change in the affairs of the Authority since the date hereof.

Certain statements included or incorporated by reference in this Official Statement constitute projections or estimates of future events, generally known as forward-looking statements. These statements are generally identifiable by the terminology used such as “anticipate” “plan,” “expect,” “estimate,” “budget” or other similar words. The achievement of certain results or other expectations contained in such forward-looking statements involves known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to be materially different from any future results, performance or achievements described in or expressed or implied by such forward-looking statements. Other than as may be required by law, the Authority does not plan to issue any updates or revisions to any such forward-looking statements if or when its expectations are realized or not realized, or when the events, conditions or circumstances on which such statements are based, occur.

The Underwriters have provided the following sentence for inclusion in this Official Statement, as well as certain information attributed to the Underwriters in the “UNDERWRITING” section of this Official Statement. The Underwriters have reviewed the information in this Official Statement in accordance with, and as a part of, their responsibilities to investors under the Federal securities laws as applied to the facts and circumstances of this transaction, but, except for the information attributed to the Underwriters in the “UNDERWRITING” section of this Official Statement, the Underwriters do not guarantee the accuracy or completeness of such information.

**All of the financial information of the Authority as of and for the year ended December 31, 2016 contained in this Official Statement, including the section entitled “THE AUTHORITY” and in Appendix A-1 entitled “SELECTED UNAUDITED FINANCIAL INFORMATION OF THE AUTHORITY FOR THE YEAR ENDED DECEMBER 31, 2016” hereto, is unaudited as of the date of this Official Statement and is expected to change upon the completion of the audit of the financial statements of the Authority as of and for the year ended December 31, 2016, which will not occur until after the date of issuance and delivery of the Series 2017 A Bonds. Additionally, as permitted by the Authority’s existing continuing disclosure agreements relating to its outstanding Bonds, the Authority anticipates filing draft unaudited financial statements as of and for the year ended December 31, 2016 with the Electronic Municipal Market Access (EMMA) system of the Municipal Securities Rulemaking Board by no later May 1, 2017 (the filing deadline under the Authority’s existing continuing disclosure agreements), and subsequently filing audited financial statements as of and for the year ended December 31, 2016 with EMMA when they become available. As of the date of the Official Statement, the Authority has not received the necessary information from the Public Employees Retirement System (PERS) of the State of New Jersey to report its proportionate share of the PERS net pension liability, as well as the related deferred inflows and outflows of resources and expenses, as of and for the year ended December 31, 2016. The audit of the financial statements of the Authority as of and for the year ended December 31, 2016 cannot be completed until after such information is received. See “THE AUTHORITY – Pension and OPEB Obligations” section of this Official Statement.**

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**OFFICIAL STATEMENT**  
**of the**  
**NEW JERSEY TURNPIKE AUTHORITY**  
**relating to**  
**\$600,000,000**  
**Turnpike Revenue Bonds,**  
**Series 2017 A**

**INTRODUCTION**

This Official Statement has been prepared to provide information relating to the issuance by the New Jersey Turnpike Authority (the “Authority”) of its \$600,000,000 Turnpike Revenue Bonds, Series 2017 A (the “Series 2017 A Bonds”). The Bank of New York Mellon, Woodland Park, New Jersey, will serve as Trustee, Paying Agent and Registrar (the “Trustee”, “Registrar” and “Paying Agent”) for the Series 2017 A Bonds.

The Authority is a body corporate and politic of the State of New Jersey (the “State”) organized and existing by virtue of the New Jersey Turnpike Act of 1948, constituting Chapter 454 of the Laws of New Jersey of 1948, as amended and supplemented (the “Act”). Pursuant to the Act, the Authority has owned and operated the New Jersey Turnpike (the “Turnpike”) since the time the Turnpike opened for traffic in 1951. In July 2003, the New Jersey Highway Authority (the “Highway Authority”) was abolished and the Authority assumed all of the powers, rights, obligations, assets, debts, liabilities and statutory responsibilities and duties of the Highway Authority, including the ownership and operation of the Garden State Parkway (the “Parkway” and, together with the Turnpike, the “Turnpike System”). As a result, the assets and liabilities of the Authority and the Highway Authority and the ongoing operations, expenses and revenues of the Turnpike and the Parkway are now combined under the ownership and operation of the Authority. See “THE AUTHORITY” herein.

The Series 2017 A Bonds will be issued under and pursuant to the Act and the Turnpike Revenue Bond Resolution adopted by the Authority on August 20, 1991, as amended, restated and supplemented (the “General Bond Resolution”), including as supplemented by the Series 2016 Turnpike Revenue Bond Resolution adopted by the Authority on September 27, 2016 (the “Series 2016 Resolution”), and a Certificate of Determination to be executed by the Executive Director of the Authority prior to the issuance of the Series 2017 A Bonds (the “Certificate of Determination” and, together with the General Bond Resolution and the Series 2016 Resolution, the “Resolution”). The Series 2017 A Bonds and any other Outstanding Bonds (as hereinafter defined) under the Resolution are referred to herein as the “Bonds”. All capitalized terms used herein and not otherwise defined in this Official Statement will have the meanings ascribed to them in the Resolution.

The Series 2017 A Bonds will be payable from and secured by a lien on and pledge of the Pledged Revenues of the Turnpike System on a parity with all Bonds Outstanding under the Resolution from time to time, and the Authority’s reimbursement and payment obligations under certain Credit Facilities and Qualified Swaps. See “SECURITY FOR THE BONDS” herein.

The Authority is issuing the Series 2017 A Bonds to (i) pay the Cost of Construction of various Projects which are part of the Authority’s ongoing capital improvement program for the Turnpike System (the “Capital Improvement Program”); (ii) make a deposit into the Debt Reserve Fund, and (iii) pay the costs of issuance of the Series 2017 A Bonds. See “THE SERIES 2017 A BONDS”, “SECURITY FOR

THE BONDS”, “ESTIMATED SOURCES AND USES OF FUNDS” and “THE AUTHORITY – Capital Improvement Program” herein.

The Authority is engaged in a comprehensive Capital Improvement Program which was approved in 2008 and currently provides for the expenditure by the Authority of an estimated aggregate amount of approximately \$7,000,000,000 through the end of the Capital Improvement Program to fund numerous capital improvements to the Turnpike System, including, without limitation, the widening of certain sections of both the Turnpike and the Parkway. In April 2009, the Authority issued its \$375,000,000 Turnpike Revenue Bonds, Series 2009 E and \$1,375,000,000 Turnpike Revenue Bonds, Series 2009 F (Federally Taxable – Issuer Subsidy – Build America Bonds) (respectively, the “Series 2009 E Bonds” and the “Series 2009 F Bonds” and, collectively, the “Series 2009 E and F Bonds”) under the Resolution to initially fund the costs of the Capital Improvement Program. In December 2010, the Authority issued its \$1,850,000,000 Turnpike Revenue Bonds, Series 2010 A (Federally Taxable – Issuer Subsidy – Build America Bonds) (the “Series 2010 A Bonds”, together with the Series 2009 F Bonds, the “Build America Bonds”) under the Resolution to further fund costs of the Capital Improvement Program. In addition, the Authority has also issued its \$1,400,000,000 Turnpike Revenue Bonds, Series 2013 A (the “Series 2013 A Bonds”), its \$1,000,000,000 Turnpike Revenue Bonds, Series 2014 A (the “Series 2014 A Bonds”) and its \$750,000,000 Turnpike Revenue Bonds, Series 2015 E (the “Series 2015 E Bonds”) to further fund costs of the Capital Improvement Program. The Series 2017 A Bonds are being issued by the Authority for the primary purpose of further funding the costs of the Capital Improvement Program. The Authority anticipates issuing one additional Series of Non-Refunding Bonds under the Resolution over the next 12 to 18 months, in an aggregate principal amount of approximately \$525,000,000, in order to further fund the remaining costs of the Capital Improvement Program, and to fund deposits to the Debt Reserve Fund, capitalized interest on such Non-Refunding Bonds and costs of issuance required in connection with the issuance of such Non-Refunding Bonds. See “SECURITY FOR THE BONDS – Additional Indebtedness” and “THE AUTHORITY – Capital Improvement Program” herein.

The current toll rates in effect for the Turnpike System are anticipated to provide the Authority with sufficient Net Revenues to satisfy all of the requirements of the Resolution relating to the issuance of all Bonds expected to be hereafter issued by the Authority to fund the Costs of Construction of the various Projects comprising the Capital Improvement Program. See “SECURITY FOR THE BONDS – Toll Covenant”, “SECURITY FOR THE BONDS – Additional Indebtedness”, “THE AUTHORITY – Certain Powers” and “THE AUTHORITY – Existing Toll Rates and Schedule” herein.

On January 20, 2017, the Delaware River Turnpike Bridge between New Jersey and Pennsylvania, which permits traffic on the Authority’s Pearl Harbor Memorial Turnpike Extension to connect with the Pennsylvania Turnpike, was fully closed for emergency repairs. After the completion of certain repairs and extensive examination and testing, the bridge was fully reopened to traffic on March 9, 2017. The Authority estimates that its 50% share of the costs of the repair, examination and testing of the bridge will be approximately \$10,000,000, which will be paid by the Authority from available moneys currently on hand in the Maintenance Reserve Fund. The Authority’s Traffic Engineer has projected that the closure of the bridge resulted in the Authority incurring a loss of toll revenue on the Turnpike of approximately \$8,000,000, which has been included in the projections of the Authority’s Turnpike toll revenues for calendar year 2017 included in the 2017 Drawn Down Letter of the Traffic Engineer. See “THE AUTHORITY – Status of Delaware River Bridge” and “THE AUTHORITY – Summary of Projected Operations by the Traffic Engineer” herein, and APPENDIX B – “2017 DRAW DOWN LETTER, 2015 DRAW DOWN LETTER AND REPORT OF TRAFFIC ENGINEER” hereto.

The Series 2017 A Bonds will be issued in fully registered form without coupons, and, when issued, will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York (“DTC”). DTC will act as securities depository for the Series 2017 A Bonds, as more fully described herein. Individual purchases of the Series 2017 A Bonds will be made in book-entry form only, in denominations of \$5,000 or any integral multiples thereof. Purchasers of the Series 2017 A



Bonds will not receive certificates representing their interest therein. See “BOOK-ENTRY ONLY SYSTEM” herein.

For a complete description of the Series 2017 A Bonds, including the redemption provisions thereof, see “THE SERIES 2017 A BONDS” herein.

## **THE SERIES 2017 A BONDS**

### **General**

The Series 2017 A Bonds shall be dated their Date of Delivery and shall bear interest from such date, payable on January 1 and July 1 of each year, commencing on July 1, 2017 (each, an “Interest Payment Date”), until their maturity date or prior redemption. Interest shall be calculated on the basis of a 360-day year consisting of twelve 30-day months. The Series 2017 A Bonds will bear interest at the interest rates per annum set forth on the inside cover page of this Official Statement.

The Series 2017 A Bonds will mature on the dates, in the years and in the amounts shown on the inside front cover page of this Official Statement. The Series 2017 A Bonds are subject to optional redemption prior to maturity. See “THE SERIES 2017 A BONDS – Redemption Prior to Maturity” herein.

The Series 2017 A Bonds are being initially issued and delivered in fully registered form only, in the denomination of \$5,000 or any integral multiples thereof (the “Authorized Denominations”), and will be registered in the name of Cede & Co., as nominee of DTC. DTC will act as securities depository for the Series 2017 A Bonds. So long as the Series 2017 A Bonds are held in DTC’s book-entry only system, DTC (or a successor securities depository) or its nominee will be the registered owner of the Series 2017 A Bonds for all purposes of the Resolution, the Series 2017 A Bonds and this Official Statement, and payments of principal and interest with respect to the Series 2017 A Bonds will be made solely through the facilities of DTC. See “BOOK-ENTRY ONLY SYSTEM” herein.

Principal of the Series 2017 A Bonds is payable upon surrender of the Series 2017 A Bonds at the corporate trust office of the Paying Agent. Interest on the Series 2017 A Bonds will be paid by check or draft mailed by the Paying Agent to the registered holders at their addresses as they appear in the registry books of the Trustee as of the regular record date, which shall be the fifteenth (15<sup>th</sup>) day (whether or not a Business Day) of the calendar month next preceding an Interest Payment Date. Any interest not paid on an Interest Payment Date shall be paid to the persons in whose names Series 2017 A Bonds are registered as of a special record date established by notice mailed by or on behalf of the Authority not less than ten days prior to such date to the persons in whose names Series 2017 A Bonds are registered at the close of business on the fifth day prior to such mailing.

The Series 2017 A Bonds are transferable in accordance with the provisions of the Resolution. The Trustee may charge an amount sufficient to reimburse it for any tax, fee or other governmental charge required to be paid in connection with any such transfer, registration, conversion or exchange.

The Resolution and all provisions thereof are incorporated by reference in the text of the Series 2017 A Bonds, and the Series 2017 A Bonds provide that each registered owner, beneficial owner, DTC Participant or Indirect Participant (as such terms are hereinafter defined) in DTC, by acceptance of a Series 2017 A Bond (including receipt of a book-entry credit evidencing an interest therein) assents to all of such provisions as an explicit and material portion of the consideration running to the Authority to induce it to issue such Series 2017 A Bond.

## **Redemption Prior to Maturity**

The Series 2017 A Bonds maturing on and after January 1, 2028 are subject to optional redemption, in whole or in part, on any date on or after January 1, 2027, at a Redemption Price equal to the principal amount of the Series 2017 A Bonds being redeemed, without premium, plus accrued interest to the redemption date.

## **Selection of Series 2017 A Bonds for Redemption**

If less than all of the Series 2017 A Bonds are to be redeemed and paid prior to maturity, the specific maturity or maturities of the Series 2017 A Bonds to be redeemed shall be selected by the Authority, and then within each such maturity, (a) if the Series 2017 A Bonds are in book-entry form at the time of such redemption, the Paying Agent shall instruct DTC to instruct the DTC Participants to select the specific Series 2017 A Bonds within such maturity for redemption by lot among such Series 2017 A Bonds, and neither the Authority nor the Paying Agent shall have any responsibility to insure that DTC or its Participants properly select such Series 2017 A Bonds for redemption and (b) if the Series 2017 A Bonds are not then in book-entry form at the time of such redemption, on each redemption date the Paying Agent shall select the specific Series 2017 A Bonds within such maturity for redemption by lot among such Series 2017 A Bonds.

In the case of a partial redemption of the Series 2017 A Bonds when Series 2017 A Bonds of denominations greater than the minimum applicable Authorized Denomination are then Outstanding, for all purposes in connection with such redemption, each principal amount equal to the minimum Authorized Denomination shall be treated as though it were a separate Series 2017 A Bond for purposes of selecting the specific Series 2017 A Bonds to be redeemed, provided that no Series 2017 A Bond shall be redeemed in part if the principal amount to be Outstanding following such partial redemption is not an applicable Authorized Denomination.

## **Notice of Redemption**

In the event of any such redemption, either in whole or in part, notice of such redemption shall be sent by first class mail mailed, postage prepaid, at least thirty (30) days, but not more than sixty (60) days prior to the redemption date to the registered owners of any Series 2017 A Bonds or portions of Series 2017 A Bonds to be redeemed at their registered addresses and to Standard & Poor's and Moody's Investors Service or their respective successors, if any, in the manner and under the terms and conditions provided in the Resolution. As long as DTC remains the sole registered owner of the Series 2017 A Bonds, notice of redemption shall be sent to DTC as provided in the Resolution. Such mailing shall not be a condition precedent to such redemption and failure to mail any such notice shall not affect the validity of the proceedings for the redemption of the Series 2017 A Bonds. Notice of redemption having been given as aforesaid, the Series 2017 A Bonds or portions thereof so called for redemption shall become due and payable at the applicable redemption price herein provided, and from and after the date so fixed for redemption, interest on the Series 2017 A Bonds or portions thereof so called for redemption shall cease to accrue and become payable. Any failure of DTC to advise any DTC Participant, or of any DTC Participant or Indirect Participant to notify the beneficial owner of any such notice and its content or effect will not affect the validity of the redemption of the Series 2017 A Bonds called for redemption or of any other action premised on such notice. See "BOOK-ENTRY ONLY SYSTEM" herein.

## **BOOK-ENTRY ONLY SYSTEM**

The information in this section has been obtained from DTC. DTC will act as securities depository for the Series 2017 A Bonds. The Series 2017 A Bonds will be issued as fully-registered securities 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 and, if applicable, interest rate within a maturity of the Series 2017 A Bonds in the aggregate principal amount of each such Series, maturity and, if applicable, interest rate within the Series 2017 A Bonds, and 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. DTC 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 Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission.

Purchases of Series 2017 A Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2017 A Bonds on DTC's records. The ownership interest of each actual purchaser of each Series 2017 A Bond ("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 the Series 2017 A Bonds 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 Series 2017 A Bonds, except in the event that use of the book-entry system for the Series 2017 A Bonds is discontinued.

To facilitate subsequent transfers, all Series 2017 A Bonds 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 Series 2017 A Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not affect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2017 A Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2017 A Bonds 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. Beneficial Owners of the Series 2017 A Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 2017 A Bonds, such as redemptions, tenders, defaults and proposed amendments to the Series 2017 A Bonds documents. For example, Beneficial Owners of the Series 2017 A Bonds may wish to ascertain that the nominee holding the Series 2017 A Bonds for their benefit has agreed to obtain and transmit notices to the Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the Trustee and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Series 2017 A Bonds are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Series 2017 A Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Authority 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 Series 2017 A Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Redemption proceeds and principal and interest payments on the Series 2017 A Bonds 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 Authority or the Trustee, 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, the Trustee, or the Authority, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds and principal and interest payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Authority or the Trustee, 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 securities depository with respect to the Series 2017 A Bonds at any time by giving reasonable notice to the Authority or the Trustee. Under such circumstances, in the event that a successor securities depository is not obtained, Series 2017 A Bond certificates are required to be printed and delivered.

The Authority may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, Series 2017 A Bond certificates will be printed and delivered to DTC.

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

NEITHER THE AUTHORITY NOR THE TRUSTEE WILL HAVE ANY RESPONSIBILITY OR OBLIGATION, EITHER SINGULARLY OR JOINTLY, TO DTC PARTICIPANTS, TO INDIRECT PARTICIPANTS, OR TO ANY BENEFICIAL OWNER WITH RESPECT TO (I) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC, ANY DTC PARTICIPANT, OR ANY INDIRECT PARTICIPANT; (II) ANY NOTICE THAT IS PERMITTED OR REQUIRED TO BE

GIVEN TO THE HOLDERS OF THE SERIES 2017 A BONDS UNDER THE RESOLUTION; (III) THE PAYMENT BY DTC OR ANY DTC PARTICIPANT OR INDIRECT PARTICIPANT OF ANY AMOUNT WITH RESPECT TO THE PRINCIPAL OR INTEREST DUE WITH RESPECT TO THE SERIES 2017 A BONDS; (IV) ANY CONSENT GIVEN OR OTHER ACTION TAKEN BY DTC AS THE HOLDER OF THE SERIES 2017 A BONDS; OR (V) ANY OTHER MATTER.

THE AUTHORITY AND THE UNDERWRITERS CANNOT AND DO NOT GIVE ANY ASSURANCES THAT DTC OR DIRECT PARTICIPANTS OR INDIRECT PARTICIPANTS OF DTC WILL DISTRIBUTE TO THE BENEFICIAL OWNERS OF THE SERIES 2017 A BONDS: (1) PAYMENTS OF PRINCIPAL OF OR INTEREST ON THE SERIES 2017 A BONDS; (2) CONFIRMATIONS OF THEIR OWNERSHIP INTERESTS IN THE SERIES 2017 A BONDS; OR (3) NOTICES SENT TO DTC OR CEDE & CO., ITS NOMINEE, AS THE REGISTERED OWNER OF THE SERIES 2017 A BONDS, OR THAT THEY WILL DO SO ON A TIMELY BASIS. THE AUTHORITY AND THE UNDERWRITERS CANNOT AND DO NOT GIVE ANY ASSURANCES THAT DTC, DIRECT PARTICIPANTS OR INDIRECT PARTICIPANTS WILL SERVE AND ACT IN THE MANNER DESCRIBED IN THIS OFFICIAL STATEMENT.

THE INFORMATION CONTAINED IN THIS OFFICIAL STATEMENT CONCERNING DTC AND ITS BOOK-ENTRY SYSTEM HAS BEEN OBTAINED FROM DTC, AND NEITHER THE AUTHORITY NOR THE UNDERWRITERS MAKE ANY REPRESENTATIONS AS TO THE COMPLETENESS OR THE ACCURACY OF SUCH INFORMATION OR AS TO THE ABSENCE OF MATERIAL ADVERSE CHANGES IN SUCH INFORMATION SUBSEQUENT TO THE DATE HEREOF.

## **SECURITY FOR THE BONDS**

### **General**

The Series 2017 A Bonds will be entitled to the benefit and security of the Resolution.

The Series 2017 A Bonds will be on parity as to payment and security with all other currently Outstanding Bonds and any other Bonds hereafter issued under the Resolution, and with the Authority's reimbursement and payment obligations under certain Credit Facilities and Qualified Swaps, and will be secured by a lien on and pledge of Pledged Revenues under the Resolution.

### **Pledge of Revenues and Funds**

The Resolution pledges to the payment of all Bonds (including the Series 2017 A Bonds) and any provider under a Credit Facility and a Qualified Swap Agreement, (i) the proceeds of the sale of the Bonds (including the Series 2017 A Bonds), (ii) all Pledged Revenues, and (iii) all amounts on deposit in Funds established by the Resolution (other than amounts derived from any Federal or State grants and certain other grants and except as otherwise provided in the Resolution). The pledge and lien created may be modified by a Series Resolution or Supplemental Resolution to provide for a pledge of amounts on deposit in certain funds and accounts, which amounts are provided from proceeds of Bonds issued pursuant to such Series Resolution or Supplemental Resolution, superior to the pledge of such funds and accounts and such proceeds for other Bonds. For purposes of the Resolution, Pledged Revenues include (i) all tolls, revenues, fees, rents, charges and other income and receipts derived from the operation of the Turnpike System; (ii) the proceeds of business interruption insurance relating to the Turnpike System and other insurance which insures against loss of Turnpike Revenues; (iii) amounts deposited in the Revenue Fund derived from amounts in the Construction Fund, Special Project Reserve Fund or General Reserve Fund; (iv) other revenues of the Authority, including, but not limited to, payments under Qualified Swap Agreements to the extent specifically pledged pursuant to one or more Series Resolutions, and the cash subsidy payments to be received by the Authority from the United States Treasury in connection with the

interest payable on the Build America Bonds (collectively, the “Subsidy Payments”); and (v) investment income on amounts in the funds and accounts held under the Resolution and deposited in the Revenue Fund.

### **Toll Covenant**

The Authority has covenanted in the General Bond Resolution to fix, charge and collect tolls for the use of the Turnpike System in amounts so that, in each calendar year, the Net Revenues shall at least equal the Net Revenue Requirement for such year.

For purposes of the Resolution, Net Revenues (calculated for any period of time) are defined as Pledged Revenues for such period less Operating Expenses for such period, and the Net Revenue Requirement (calculated for any period of time) is defined as an amount equal to the greater of (i) the sum of the Aggregate Debt Service, Maintenance Reserve Payments, Special Project Reserve Payments and payments, if any, to the Charges Fund for such period or (ii) 1.20 times the sum of the Aggregate Debt Service for such period (excluding, for purposes of clause (ii) only, any payments due and payable by the Authority under any Qualified Swap Agreement upon an early termination thereof). Aggregate Debt Service is, for any calendar year, the sum of interest (net of any capitalized interest) and Principal Installments (which include Sinking Fund Installments) for the Bonds and all payments due by the Authority under Qualified Swap Agreements for such period.

On or before December 1 of each year, the Authority is required to review its financial condition in order to estimate and determine whether the Net Revenue Requirement for such year and for the following year can be satisfied. The Authority is required to file with the Trustee on or before December 20 of each year a certified copy of its resolution making such determination, together with a statement of the actual and estimated Pledged Revenues, Operating Expenses, Aggregate Debt Service, Maintenance Reserve Payments and Special Project Reserve Payments and the other estimates and assumptions upon which such determination was based, which must take into consideration the cost of completion of any uncompleted Projects and the issuance of future Series of Bonds, if necessary, to finance the completion of such Projects. If the Authority determines that Pledged Revenues may be insufficient, the Authority is required to (i) cause its Traffic Engineer to make a study for the purpose of recommending a schedule of tolls which, in the opinion of the Traffic Engineer, will cause sufficient Pledged Revenues to be collected in the following year to comply with the toll covenant and will provide additional Pledged Revenues to be collected in such following year and later years to eliminate any deficiency at the earliest practicable time, and (ii) as promptly as practicable but no later than the next April 1, adopt and place in effect the schedule of tolls recommended by the Traffic Engineer.

Failure to comply with the toll covenant described above will not constitute an Event of Default under the Resolution if the Traffic Engineer is of the opinion that a toll schedule that will comply with such toll covenant is impracticable at that time, and the Authority establishes a schedule of tolls which is recommended by the Traffic Engineer to comply as nearly as practicable with the toll covenant.

Pursuant to the Act, whenever the Authority desires to increase the tolls on the Turnpike and/or the Parkway, it is required to hold a public hearing on such toll increase at least 45 days prior to the date on which such toll increase is proposed to become effective. In addition, the resolution or other action of the Authority authorizing such toll increase cannot be adopted or otherwise made effective without the prior written approval of the Governor and the Treasurer of the State and the Governor has the right to veto such resolution or other action of the Authority within a 10-day period after the minutes of the Authority meeting at which such resolution was adopted or other action taken are delivered to the Governor. The Act further provides that the powers conferred upon the Governor and the Treasurer of the State described above shall be exercised with due regard for the rights of the holders of bonds of the Authority at any time outstanding, and nothing in, or done pursuant to, the Act shall in any way limit, restrict or alter the obligation or powers of the Authority or any representative or officer of the Authority to carry out and perform in every detail each and every covenant, agreement or contract at any time made

or entered into by or on behalf of the Authority with respect to its bonds or for the benefit, protection or security of the holders thereof. See “THE AUTHORITY – Certain Powers” herein.

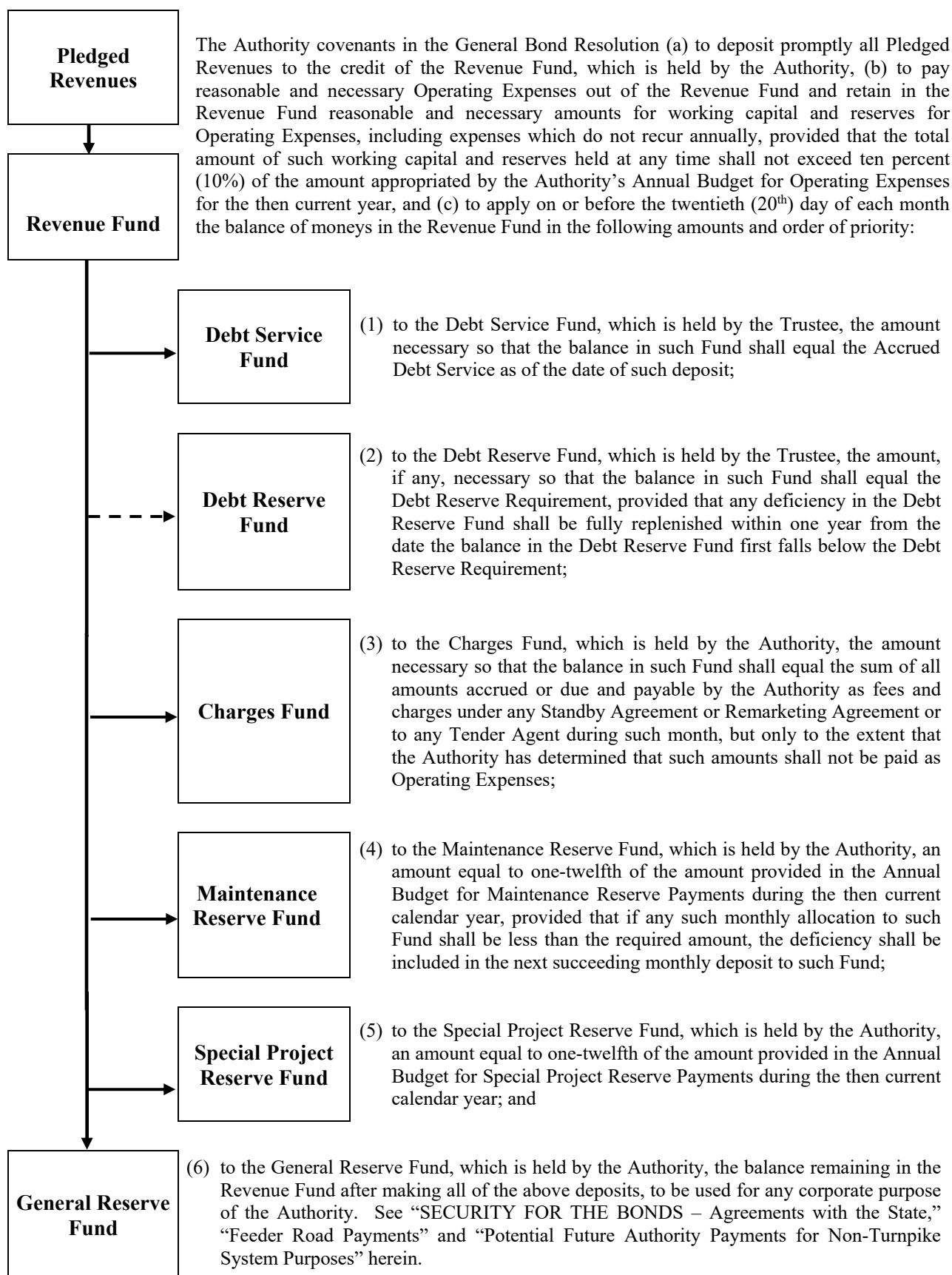
The Authority has increased tolls on the Turnpike seven times since its opening in 1951. The effective dates of those increases were March 23, 1975, April 1, 1980, March 17, 1991, September 30, 2000, January 1, 2003, December 1, 2008 and January 1, 2012. Tolls on the Parkway have increased only three times since its opening in 1950. The first increase went into effect April 15, 1989, the second increase took effect December 1, 2008 and the third took effect on January 1, 2012. See “THE AUTHORITY – Certain Powers” and “THE AUTHORITY – Existing Toll Rates and Schedule” herein.

As permitted by the Resolution, from time to time in the past (most recently in fiscal year 2008), the Authority has withdrawn amounts from the General Reserve Fund and deposited such amounts in the Revenue Fund in order to comply with the toll covenant described above.

### **Flow of Funds**

The General Bond Resolution creates and establishes various Funds and provides that the Pledged Revenues shall be deposited into such Funds in the amounts and in the order of priority set forth in the General Bond Resolution. The following chart illustrates and generally describes the provisions of the General Bond Resolution governing the deposit and application of the Pledged Revenues to the various Funds created and established under the General Bond Resolution:

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## **Debt Reserve Fund**

The Resolution establishes a Debt Reserve Fund for all Bonds issued thereunder, including the Series 2017 A Bonds, and for the benefit of the provider of any Credit Facility or any Qualified Swap Agreement. There is required to be on deposit in the Debt Reserve Fund an amount equal to the Debt Reserve Requirement for all Bonds then Outstanding under the Resolution (including the Series 2017 A Bonds), provided that any deficiency in the Debt Reserve Fund shall be fully replenished within one year from the date the balance in the Debt Reserve Fund first falls below the Debt Reserve Requirement.

For purposes of the Resolution, the Debt Reserve Requirement is equal to the maximum amount of interest accruing on Bonds Outstanding in the then current or any future calendar year (including, for these purposes, the incremental accreted value for any such year for capital appreciation Bonds and interest calculated at the fixed rate established in the Resolution for any Bonds bearing interest at a variable rate). The Debt Reserve Requirement is calculated without consideration of any Subsidy Payments the Authority may receive from the United States Treasury in connection with the Build America Bonds. In calculating the Debt Reserve Requirement, interest on variable rate Bonds swapped to a fixed rate is assumed to be paid at the applicable fixed swap rate and the spreads over the variable rate index used to determine the interest rate on such variable rate Bonds are not included in the calculation of the interest accruing on such Bonds. In addition, in calculating the Debt Reserve Requirement, interest on the \$5,000,000 unhedged portion of the Authority's Outstanding Turnpike Revenue Bonds, Series 2015 A, is calculated at the Maximum Rate under the Resolution, which is 12%.

Upon issuance of the Series 2017 A Bonds, the Debt Reserve Requirement will be \$598,655,382. A portion of the proceeds of the Series 2017 A Bonds will be deposited in to the Debt Reserve Fund on the date of issuance of the Series 2017 A Bonds in order to fully satisfy the increase in the Debt Reserve Requirement resulting from the issuance of the Series 2017 A Bonds. See "ESTIMATED SOURCES AND USES OF FUNDS" herein. The entire amount of the Debt Reserve Requirement has been funded with proceeds of various Authority Bond issuances and other available funds of the Authority.

## **Agreements with the State**

The Authority and the State have two separate agreements in effect, one dated as of March 27, 2000 (the "2000 State Agreement") and the other dated as of June 28, 2016 (the "Current State Transportation Projects Funding Agreement" and, collectively, the "State Agreements") pursuant to which the Authority has agreed to make annual payments to the State. The obligation of the Authority to make any such payments is limited to the amounts on deposit in the General Reserve Fund which are legally available to be used by the Authority for such purposes and is subject and subordinate in all respects to the pledge created under the Resolution. Pursuant to the 2000 State Agreement, the Authority has agreed to make annual payments to the State in the amount of \$22,000,000 until all of the obligations of the New Jersey Transportation Trust Fund Authority as set forth in the New Jersey Transportation Trust Fund Authority Act, constituting Chapter 108 of the Laws of New Jersey of 1995, are paid or such payment has been provided for. Payments made by the Authority pursuant to the 2000 State Agreement are to be used by the State to provide for the development of State transportation projects.

Pursuant to the Current State Transportation Projects Funding Agreement, the Authority has agreed to make payments to the State, commencing September 30, 2016, in the amount of \$102,000,000 for the six months ending December 31, 2016, \$204,000,000 in year 2017, \$166,500,000 in year 2018, \$129,000,000 for each of the years 2019 and 2020, and \$64,500,000 for the six months ending June 30, 2021. The Current State Transportation Projects Funding Agreement expires on June 30, 2021. Payments made by the Authority pursuant to the Current State Transportation Projects Funding Agreement are to be used by the State to pay or provide for the development of State transportation projects in an effort to further satisfy the overall transportation needs of the State. There can be no assurance that the Authority will not be requested to modify, accelerate and/or make additional payments to the State before or after the expiration of the Current State Transportation Projects Funding Agreement.

Any such payments to the State would be paid from legally available amounts on deposit in the General Reserve Fund and will be subject and subordinate in all respects to the pledge created under the Resolution.

The Current State Transportation Projects Funding Agreement is a successor agreement to the State Transportation Projects Funding Agreement, dated September 30, 2011 (the “Prior State Transportation Projects Funding Agreement”), by and between the Authority and the State, which required the Authority to make payments to the State for the development of State transportation purposes, commencing September 30, 2011, in the amount of \$331,000,000 in 2012, \$324,000,000 for each of the years 2013 through and including 2015, and \$162,000,000 for the six months ending June 30, 2016. The Prior State Transportation Projects Funding Agreement expired on June 30, 2016.

As of the date of this Official Statement, the Authority has made all required payments under the State Agreements and the Prior State Transportation Projects Funding Agreement.

### **Feeder Road Payments**

The Authority has also entered into an agreement with the New Jersey Department of Transportation (“DOT” or “NJDOT”) (the “Current Feeder Road Maintenance Agreement”) whereby the Authority has agreed to make certain payments (the “Feeder Road O&M Payments”) to the DOT to reimburse the DOT for the costs of reconstruction, maintenance and repair of certain roadways which the DOT owns and operates and which constitute “feeder roads” to the Turnpike System for purposes of the Act and the Resolution. Pursuant to the Current Feeder Road Maintenance Agreement, the DOT has agreed to maintain the feeder roads in a state of good repair sufficient to support the safe and efficient access and egress onto the Turnpike and the Parkway. The term of the Current Feeder Road Maintenance Agreement commenced on July 1, 2016 and ends on June 30, 2023. Pursuant to the Current Feeder Road Maintenance Agreement, the Authority has agreed to make Feeder Road O&M Payments in the aggregate amounts of \$4,000,000 for the six months ending December 31, 2016, \$6,500,000 in year 2017, \$4,500,000 in year 2018, \$3,500,000 in year 2019, \$2,500,000 for each of the years 2020 through 2022 and \$1,250,000 for the six months ending June 30, 2023. The Authority anticipates that it will be required to continue to make annual Feeder Road O&M Payments to the DOT after the expiration of the term of the Current Feeder Road Maintenance Agreement. The obligation of the Authority to make the Feeder Road O&M Payments to the DOT is limited to the amounts on deposit in the General Reserve Fund which are legally available to be used by the Authority for such purposes and is subject and subordinate in all respects to the pledge created under the Resolution.

The Current Feeder Road Maintenance Agreement is a successor agreement to a prior agreement (the “Prior Feeder Road Maintenance Agreement”), between the Authority and the DOT, which required the Authority to make Feeder Road O&M Payments to the DOT in the amount of \$8,001,000 per year during its term from July 1, 2009 through June 30, 2016, when the Prior Feeder Road Maintenance Agreement expired.

As of the date of this Official Statement, the Authority has made all of the Feeder Road O&M Payments required to be made pursuant to the Prior and Current Feeder Road Maintenance Agreements.

At its meeting in August 2009, the Authority’s Board of Commissioners authorized the execution of a memorandum of agreement (the “North Avenue Corridor Project Agreement”) by and among the Authority, the Port Authority of New York & New Jersey (the “Port Authority”), the DOT, the City of Elizabeth, New Jersey and the County of Union, New Jersey, pursuant to which the Authority would be obligated to contribute \$45,000,000 toward the costs of construction of various roadway improvements along North Avenue in the City of Elizabeth, New Jersey in the vicinity of Interchange 13A on the Turnpike (the “North Avenue Corridor Project”). The North Avenue Corridor Project would have constituted a “feeder road” to the Turnpike System for purposes of the Act and the Resolution with the total cost of the North Avenue Corridor Project anticipated being approximately \$153,000,000. Pursuant

to the North Avenue Corridor Project Agreement, the Authority would have been obligated to make payments to the Port Authority in the amount of approximately \$4,500,000 per year for 10 years (collectively, the “North Avenue Corridor Project Payments”) in order to reimburse the Port Authority for the Authority’s share of the costs of the North Avenue Corridor Project. In 2016, the Authority was notified by the DOT that it had removed the North Avenue Corridor Project from its capital plan and the DOT agreed to relieve the Authority of any financial obligation to the North Avenue Corridor Project should the project ever become active in the future. At its meeting on June 28, 2016, the Authority’s Board of Commissioners rescinded its authorization to fund the North Avenue Corridor Project. The North Avenue Corridor Project Agreement has terminated and is no longer in effect.

### **Potential Future Authority Payments for Non-Turnpike System Purposes**

There can be no assurance that the Authority will not be requested to make future payments to the State in connection with State transportation purposes. Any such payments to the State would be paid from legally available amounts on deposit in the General Reserve Fund and would be subject and subordinate in all respects to the pledge created under the Resolution.

### **Additional Indebtedness**

The Authority may issue Non-Refunding Bonds and Refunding Bonds under the General Bond Resolution on parity with Outstanding Bonds and the Authority’s obligations under any Qualified Swap Agreement and Credit Facility upon satisfaction of the requirements described below and in Appendix D hereto under the captions “Issuance of Non-Refunding Bonds” and “Issuance of Refunding Bonds”.

#### *Issuance of Non-Refunding Bonds*

One or more Series of Non-Refunding Bonds may be issued for the purpose of (i) paying the Costs of Construction of a Project, and (ii) raising funds to complete any Project for which Non-Refunding Bonds were issued pursuant to clause (i) above, subject to the following conditions and tests, among others:

(1) The Net Revenues for any period of twelve (12) consecutive calendar months (reflecting any adjustment in toll rates made at any time during such period as if such toll rates were effective since the beginning of such period) out of the preceding twenty-four (24) calendar months equal or exceed the Net Revenue Requirement for such twelve (12) months without regard to the Bonds to be issued;

(2) The estimated Net Revenues for the then current and each future calendar year to and including the fifth full calendar year after the estimated date when the Project will be placed in service equal or exceed the Net Revenue Requirement for each such year and Net Revenues in the fifth such calendar year equal or exceed future maximum Aggregate Debt Service in any year; and

(3) There will be deposited (i) in the Debt Reserve Fund the amount, if any, necessary so that the balance in such fund equals the Debt Reserve Requirement, calculated immediately after delivery of such Non-Refunding Bonds, (ii) in any other Fund the amount required by the Resolution, and (iii) in the Construction Fund for the Project specified by the applicable Series Resolution the remaining balance.

For the purposes of the above tests, the estimated Net Revenues are to be based on estimates by the Traffic Engineer of Turnpike Revenues and estimates by the Consulting Engineer of Operating Expenses and are to give effect to the construction of the Project for which such Bonds are being issued and any other uncompleted Project. The estimates of the Traffic Engineer are to reflect the effect of the construction, improvement or acquisition of any highway or other facility which any Federal, State or

other agency is then projecting or planning and which, in its opinion, may be materially competitive with any part of the Turnpike System.

The Authority anticipates issuing one additional Series of Non-Refunding Bonds under the Resolution over the next 12 to 18 months, in an aggregate principal amount of approximately \$525,000,000 in order to fund the remaining costs of the Capital Improvement Program, make deposits into the Debt Reserve Fund, provide for capitalized interest on such Non-Refunding Bonds and pay the costs of issuance required in connection with the issuance of such Non-Refunding Bonds. See “THE AUTHORITY – Capital Improvement Program” herein.

### *Issuance of Refunding Bonds*

One or more Series of Refunding Bonds may be issued to refund (i) any or all Outstanding Bonds of one or more Series or maturities within a Series or Bonds within a maturity or (ii) any Variable Rate Debt, Commercial Paper or Subordinated Indebtedness.

Bonds may be issued to refund Outstanding Bonds only if, among other conditions, (i) either the Authority meets the tests described above under “Issuance of Non-Refunding Bonds” or Aggregate Debt Service is not increased for any calendar year as a result of such refunding, and (ii) there shall be in effect a Qualified Swap with respect to the Bonds to be refunded and such Qualified Swap shall be terminated upon the date such Refunding Bonds are issued, and moneys in an amount sufficient to make the payment, if any, due by the Authority under such Qualified Swap upon such termination are deposited with the Trustee.

The issuance of Bonds to refund Variable Rate Debt, Commercial Paper or Subordinated Indebtedness is subject to substantially the same conditions and tests referred to above under “Issuance of Non-Refunding Bonds”.

In addition to authorizing the issuance of the Series 2017 A Bonds, the Series 2016 Resolution adopted by the Authority on September 27, 2016 also authorized, among other things, the issuance of not exceeding \$2,900,470,000 aggregate principal amount of Refunding Bonds in one or more Series to refund all or a portion of the Authority’s Outstanding Turnpike Revenue Bonds, Series 2000 B-G, Turnpike Revenue Bonds, Series 2009 E, Turnpike Revenue Bonds, Series 2009 H, Turnpike Revenue Bonds, Series 2009 I, Turnpike Revenue Bonds, Series 2012 A, Turnpike Revenue Bonds, Series 2013 A, Turnpike Revenue Bonds, Series 2013 D-2 (the “Series 2013 D-2 Bonds”), Turnpike Revenue Bonds, Series 2013 E-2 (the “Series 2013 E-2 Bonds”) and Turnpike Revenue Bonds, Series 2014 B-2 (the “Series 2014 B-2 Bonds”). Pursuant to the Series 2016 Resolution, the Authority has previously issued and currently has outstanding its \$75,025,000 Turnpike Revenue Bonds, Series 2016 B, its \$50,015,000 Turnpike Revenue Bonds, Series 2016 C, and its \$50,000,000 Turnpike Revenue Bonds, Series 2016 D, which were issued on December 21, 2016 to refund and redeem all of the Series 2013 D-2 Bonds, the Series 2013 E-2 Bonds and the Series 2014 B-2 Bonds, respectively. The remaining Refunding Bonds authorized by the Series 2016 Resolution may be issued by the Authority at any time in the future depending upon market conditions and other relevant factors.

### **Subordinated Indebtedness**

The Authority is also authorized to incur Subordinated Indebtedness under the General Bond Resolution. Such Subordinated Indebtedness is a special and limited obligation of the Authority, subject, subordinated and junior in all respects to the lien and pledge created by the Resolution in favor of all Bonds, certain Credit Facilities and Qualified Swaps. Subordinated Indebtedness is payable under the Resolution solely from amounts on deposit in the General Reserve Fund established under the Resolution that may be available from time to time to pay principal of and/or interest on Subordinated Indebtedness.

## **INTEREST RATE SWAP AGREEMENTS**

### **Authority Payment Obligations under Qualified Swap Agreements**

The Authority's respective fixed and termination payment obligations under its current Qualified Swap Agreements described below are secured by the pledge under the Resolution, and are payable from amounts deposited in the Debt Service Fund equally and ratably, and on parity with the payment of principal of and interest on Bonds and certain Credit Facilities.

Based upon the current ratings of the applicable Bonds, the Authority is currently not required to post collateral under any of its Qualified Swap Agreements. With respect to all Qualified Swap Agreements, other than the Series 2014 B-3 Swap Agreement (as hereinafter defined) with Citibank, N.A., the rating on the applicable Bonds would have to drop below either Baa2 from Moody's (as hereinafter defined) or below BBB from S&P (as hereinafter defined), for any collateral posting requirements to be imposed upon the Authority under such agreements. With respect to the Series 2014 B-3 Swap Agreement with Citibank, N.A. only, the rating on the Authority's Outstanding \$50,000,000 Turnpike Revenue Bonds, Series 2014 B-3 (the "Series 2014 B-3 Bonds"), would have to drop below A2 from Moody's, below A from S&P and below A from Fitch for any collateral posting requirements to be imposed upon the Authority under such agreements.

Each of the Authority's current Qualified Swap Agreements provides that an automatic, immediate termination of such Agreement shall take place upon the occurrence of the dissolution, bankruptcy, insolvency, liquidation or any similar related events involving or related to the Authority's counterparty under such Agreement. If a Qualified Swap Agreement is automatically and immediately terminated as a result of any such event and the fair value of such Qualified Swap Agreement is negative to the Authority on the date of such automatic immediate termination, the Authority could be obligated to make a substantial termination payment to the counterparty.

In connection with each of its Qualified Swap Agreements, the Authority has the option to terminate all or part of such Qualified Swap Agreements at any time. In the event that any Qualified Swap Agreement terminates prior to its stated termination date (including any optional termination by the Authority), either the Authority or the respective Counterparty will be required to make a termination payment to the other party. The party required to make such payment and the amount thereof will be determined by market conditions at the time of such early termination.

No financial or other information has been authorized to be provided herein with respect to any Counterparty. There can be no assurance that any Counterparty will pay or perform its obligations under its respective Qualified Swap Agreement in accordance with the terms thereof, or that such Counterparty will be able to pay any termination payment which it may be required to pay upon the occurrence of certain events of default or termination events under its respective Qualified Swap Agreement.

The following chart summarizes some of the material provisions of each of the Authority's current Qualified Swap Agreements. It is not intended to be a complete description of all of the material terms and provisions of each of those Agreements. See "APPENDIX A-2 – FINANCIAL STATEMENTS OF THE AUTHORITY FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014 WITH INDEPENDENT AUDITORS' REPORT THEREON – Management's Discussion and Analysis – Debt Administration – 2015-2014" and "– Notes to Financial Statement – Note 7" for additional information about the Authority's Qualified Swap Agreements and the status of such Qualified Swap Agreements.

Swap Agreement/ Related Series of Bonds	Notional Amount	Termination Date	Rate Paid by Authority	Rate Received by Authority	Counterparty	Fair Value <sup>(1)</sup> (as of December 31, 2016)
Series 2000 B-G	\$240,000,000	1/1/2030	4.3120%	64.459% 5-Yr. LIBOR	Wells Fargo Bank, N.A. <sup>(3)</sup>	\$(47,972,424)
Series 2000 B-G	160,000,000	1/1/2030	4.3120	64.459% 5-Yr. LIBOR	Wells Fargo Bank, N.A. <sup>(2)</sup>	(31,964,496)
Series 2013 B	100,000,000	1/1/2018	5.5728	75% of USD-LIBOR-BBA	Barclays Bank PLC	(2,964,351)
Series 2013 C-1	121,000,000	1/1/2018	5.6346	USD-SIFMA	Barclays Bank PLC	(4,361,184)
Series 2013 C-2	150,000,000	1/1/2018	5.6089	USD-SIFMA	Barclays Bank PLC	(3,529,195)
Series 2013 D-3	77,625,000	1/1/2024	3.4486	73.2% of USD-LIBOR-BBA	Wells Fargo Bank, N.A. <sup>(2)</sup>	(9,910,660)
Series 2013 E-3	51,750,000	1/1/2024	3.4486	63% USD-LIBOR-BBA plus 20 bp	Wells Fargo Bank, N.A. <sup>(3)</sup>	(6,591,651)
Series 2014 B-3	50,000,000	1/1/2024	3.3500	67% of USD-LIBOR-BBA	Citibank, N.A.	(5,802,348)
Series 2015 A	43,750,000	1/1/2024	2.9800	67% of USD-LIBOR-BBA	U.S. Bank National Association <sup>(4)</sup>	(3,242,522)
Series 2015 A	43,750,000	1/1/2024	2.9800	67% of USD-LIBOR-BBA	U.S. Bank National Association <sup>(4)</sup>	(3,242,822)
Series 2015 B	50,000,000	1/1/2024	3.3310	75% of USD-LIBOR-BBA	Barclays Bank PLC	(4,138,537)
Series 2015 C	43,750,000	1/1/2024	3.2488	67% of USD-LIBOR-BBA	Barclays Bank PLC	(3,746,781)
Series 2015 D	43,750,000	1/1/2024	3.2525	67% of USD-LIBOR-BBA	Barclays Bank PLC	(3,752,959)
Series 2015 F	72,350,000	1/1/2022	3.4486	73.2% of USD-LIBOR-BBA	Wells Fargo Bank, N.A. <sup>(3)</sup>	(7,381,124)
Series 2015 G	25,000,000	1/1/2024	3.3500	67% of USD-LIBOR-BBA	Wells Fargo Bank, N.A. <sup>(3)</sup>	(2,901,760)
Series 2015 H	48,235,000	1/1/2022	3.3050	67% of USD-LIBOR-BBA	Wells Fargo Bank, N.A. <sup>(3)</sup>	(4,888,450)
Series 2016 B	75,025,000	1/1/2023	3.4486	73.2% of USD-LIBOR-BBA	Wells Fargo Bank, N.A. <sup>(3)</sup>	(8,656,809)
Series 2016 C	50,015,000	1/1/2023	3.4486	63% USD-LIBOR-BBA plus 20 bp	Wells Fargo Bank, N.A. <sup>(3)</sup>	(5,730,501)
Series 2016 D	50,000,000	1/1/2024	3.3500	67% of USD-LIBOR-BBA	Wells Fargo Bank, N.A. <sup>(3)</sup>	(5,803,543)

<sup>(1)</sup> Provided by the Authority's Financial Advisor; includes accrued interest.

<sup>(2)</sup> Former Counterparty was UBS AG. Swap Agreement was novated to Wells Fargo Bank, N.A. in 2013.

<sup>(3)</sup> Former Counterparty was Morgan Stanley Capital Services LLC. Swap Agreement was novated to Wells Fargo Bank, N.A. in 2015.

<sup>(4)</sup> Former Counterparty was Morgan Stanley Capital Services LLC. Swap Agreement was novated to U.S. Bank National Association in 2016.

## Series 2000 B-G Swap Agreements

In connection with its \$400,000,000 Turnpike Revenue Bonds, Series 2000 B, Series 2000 C, Series 2000 D, Series 2000 E, Series 2000 F and Series 2000 G (collectively, the “Series 2000 B-G Bonds”), the Authority entered into two Interest Rate Swap Agreements hedging the interest rate on those Bonds with Morgan Stanley Capital Services LLC (formerly Morgan Stanley Capital Services Inc.) (“MSCS”), guaranteed by Morgan Stanley, and UBS AG. In 2013 and 2015, the agreements with MSCS and UBS AG were novated to Wells Fargo Bank, N.A. Interest Rate Swap Agreements with respect to the Series 2000 B-G Bonds (collectively, the “Series 2000 B-G Swap Agreements”) currently exist with Wells Fargo Bank, N.A. in the following notional amounts:

<u>Counterparty</u>	<u>Notional Amount</u>
Wells Fargo Bank, N.A.	\$240,000,000
Wells Fargo Bank, N.A.	<u>160,000,000</u>
	<u>\$400,000,000</u>

The methods of determining the floating interest rates payable in any period by the Counterparty under the Series 2000 B-G Swap Agreements are meant to closely approximate the methods of determining the floating interest rate payable in such period by the Authority for the Series 2000 B-G Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2000 B-G Swap Agreements will be sufficient to pay the interest accruing on the Series 2000 B-G Bonds during such period.

The Series 2000 B-G Swap Agreements will terminate on January 1, 2030, unless terminated sooner in accordance with their respective terms. As calculated by the Authority’s Financial Advisor, as of December 31, 2016, the Series 2000 B-G Swap Agreement with a notional amount of \$240,000,000 had a negative fair value (including accrued interest) to the Authority of approximately \$47,972,424. As calculated by the Authority’s Financial Advisor, as of December 31, 2016, the Series 2000 B-G Swap Agreement with a notional value of \$160,000,000 had a negative fair value (including accrued interest) to the Authority of approximately \$31,964,496.

## Series 2013 B Swap Agreement

In connection with its \$100,000,000 Turnpike Revenue Bonds, Series 2013 B (the “Series 2013 B Bonds”), the Authority re-identified a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the “Series 2013 B Swap Agreement”) with Barclays Bank PLC in the notional amount of \$100,000,000.

The method of determining the floating interest rate payable in any period by the Authority on the Series 2013 B Bonds exactly matches the method of determining the floating interest rate payable in such period by the Counterparty under the Series 2013 B Swap Agreement.

The Series 2013 B Swap Agreement will terminate on January 1, 2018 (the final maturity date of the Series 2013 B Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority’s Financial Advisor, as of December 31, 2016, the Series 2013 B Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$2,964,351.

### **Series 2013 C-1 Swap Agreement**

In connection with its \$121,000,000 Turnpike Revenue Bonds, Series 2013 C-1 (the “Series 2013 C-1 Bonds”), the Authority re-identified a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the “Series 2013 C-1 Swap Agreement”) with Barclays Bank PLC in the notional amount of \$121,000,000.

The method of determining the floating interest rate payable in any period by the Authority on the Series 2013 C-1 Bonds exactly matches the method of determining the floating interest rate payable in such period by the Counterparty under the Series 2013 C-1 Swap Agreement.

The Series 2013 C-1 Swap Agreement will terminate on January 1, 2018 (the final maturity date of the Series 2013 C-1 Bonds) unless terminated sooner in accordance with its terms. As calculated by the Authority’s Financial Advisor, as of December 31, 2016, the Series 2013 C-1 Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$4,361,184.

### **Series 2013 C-2 Swap Agreement**

In connection with its \$150,000,000 Turnpike Revenue Bonds, Series 2013 C-2 (the “Series 2013 C-2 Bonds”), the Authority re-identified a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the “Series 2013 C-2 Swap Agreement”) with Barclays Bank PLC in the notional amount of \$150,000,000.

The method of determining the floating interest rate payable in any period by the Authority on the Series 2013 C-2 Bonds exactly matches the method of determining the floating interest rate payable in such period by the Counterparty under the Series 2013 C-2 Swap Agreement.

The Series 2013 C-2 Swap Agreement will terminate on January 1, 2018 (the final maturity date of the Series 2013 C-2 Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority’s Financial Advisor, as of December 31, 2016, the Series 2013 C-2 Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$3,529,195.

### **Series 2013 D-3 Swap Agreement**

In connection with its \$77,625,000 Turnpike Revenue Bonds, Series 2013 D-3 (the “Series 2013 D-3 Bonds”), the Authority re-identified a then-existing Interest Rate Swap Agreement with UBS AG in order to hedge the interest rate on those Bonds (the “Series 2013 D-3 Swap Agreement”) with Wells Fargo Bank, N.A. in the notional amount of \$77,625,000.

The method of determining the floating interest rate payable in any period by the Counterparty under the Series 2013 D-3 Swap Agreement is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2013 D-3 Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2013 D-3 Swap Agreement will be sufficient to pay the interest accruing on the Series 2013 D-3 Bonds during such period.

The Series 2013 D-3 Swap Agreement will terminate on January 1, 2024 (the final maturity date of the Series 2013 D-3 Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority’s Financial Advisor, as of December 31, 2016, the Series 2013 D-3 Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$9,910,660.



### **Series 2013 E-3 Swap Agreement**

In connection with its \$51,750,000 Turnpike Revenue Bonds, Series 2013 E-3 (the “Series 2013 E-3 Bonds”), the Authority re-identified a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the “Series 2013 E-3 Swap Agreement”) with MSCS in the notional amount of \$51,750,000. In 2015, the agreement with MSCS was novated to Wells Fargo Bank, N.A.

The method of determining the floating interest rate payable in any period by the Counterparty under the Series 2013 E-3 Swap Agreement is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2013 E-3 Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2013 E-3 Swap Agreement will be sufficient to pay the interest accruing on the Series 2013 E-3 Bonds during such period.

The Series 2013 E-3 Swap Agreement will terminate on January 1, 2024 (the final maturity date of the Series 2013 E-3 Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority’s Financial Advisor, as of December 31, 2016, the Series 2013 E-3 Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$6,591,651.

### **Series 2014 B-3 Swap Agreement**

In connection with the Series 2014 B-3 Bonds, the Authority re-identified a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the “Series 2014 B-3 Swap Agreement”) with Citibank, N.A in the notional amount of \$50,000,000.

The method of determining the floating interest rates payable in any period by the Counterparty under the Series 2014 B-3 Swap Agreement is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2014 B-3 Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2014 B-3 Swap Agreement will be sufficient to pay the interest accruing on the Series 2014 B-3 Bonds during such period.

The Series 2014 B-3 Swap Agreement will terminate on January 1, 2024, unless terminated sooner in accordance with its terms. As calculated by the Authority’s Financial Advisor, as of December 31, 2016, the Series 2014 B-3 Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$5,802,348.

### **Series 2015 A Swap Agreements**

In connection with its \$92,000,000 Turnpike Revenue Bonds, Series 2015 A (the “Series 2015 A Bonds”), the Authority re-identified two then-existing Interest Rate Swap Agreements in order to hedge the interest rate on those Bonds (collectively, the “Series 2015 A Swap Agreements”) with MSCS, guaranteed by Morgan Stanley. In 2016, the Series 2015 A Swap Agreements were novated to U.S. Bank National Association. The Series 2015 A Swap Agreements currently exist with U.S. Bank National Association in the following notional amounts:

<u>Counterparty</u>	<u>Notional Amount</u>
U.S. Bank National Association (A-1)	\$ 43,750,000
U.S. Bank National Association (A-2)	<u>43,750,000</u>
	<u>\$ 87,500,000</u>

The method of determining the floating interest rate payable in any period by the Counterparty under the Series 2015 A Swap Agreements is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2015 A Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2015 A Swap Agreements will be sufficient to pay the interest accruing on the Series 2015 A Bonds during such period.

The Series 2015 A Swap Agreements will terminate on January 1, 2024 (the final maturity date of the Series 2015 A Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority's Financial Advisor, as of December 31, 2016, the Series 2015 A-1 Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$3,242,522. As calculated by the Authority's Financial Advisor, as of December 31, 2016, the Series 2015 A-2 Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$3,242,822.

#### **Series 2015 B Swap Agreement**

In connection with its \$50,000,000 Turnpike Revenue Bonds, Series 2015 B (the "Series 2015 B Bonds"), the Authority re-identified a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the "Series 2015 B Swap Agreement") with Barclay's Bank PLC in the notional amount of \$50,000,000.

The method of determining the floating interest rate payable in any period by the Counterparty under the Series 2015 B Swap Agreement is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2015 B Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2015 B Swap Agreement will be sufficient to pay the interest accruing on the Series 2015 B Bonds during such period.

The Series 2015 B Swap Agreement will terminate on January 1, 2024 (the final maturity date of the Series 2015 B Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority's Financial Advisor, as of December 31, 2016, the Series 2015 B Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$4,138,537.

#### **Series 2015 C Swap Agreement**

In connection with its \$43,750,000 Turnpike Revenue Bonds, Series 2015 C (the "Series 2015 C Bonds"), the Authority re-identified a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the "Series 2015 C Swap Agreement") with Barclay's Bank PLC in the notional amount of \$43,750,000.

The method of determining the floating interest rate payable in any period by the Counterparty under the Series 2015 C Swap Agreement is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2015 C Bonds. However,

there can be no assurance that the floating amounts received in any period by the Authority under the Series 2015 C Swap Agreement will be sufficient to pay the interest accruing on the Series 2015 C Bonds during such period.

The Series 2015 C Swap Agreement will terminate on January 1, 2024 (the final maturity date of the Series 2015 C Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority's Financial Advisor, as of December 31, 2016, the Series 2015 C Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$3,746,781.

#### **Series 2015 D Swap Agreement**

In connection with its \$43,750,000 Turnpike Revenue Bonds, Series 2015 D (the "Series 2015 D Bonds"), the Authority re-identified a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the "Series 2015 D Swap Agreement") with Barclay's Bank PLC in the notional amount of \$43,750,000.

The method of determining the floating interest rate payable in any period by the Counterparty under the Series 2015 D Swap Agreement is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2015 D Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2015 D Swap Agreement will be sufficient to pay the interest accruing on the Series 2015 D Bonds during such period.

The Series 2015 D Swap Agreement will terminate on January 1, 2024 (the final maturity date of the Series 2015 D Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority's Financial Advisor, as of December 31, 2016, the Series 2015 D Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$3,752,959.

#### **Series 2015 F Swap Agreement**

In connection with its \$72,350,000 Turnpike Revenue Bonds, Series 2015 F (the "Series 2015 F Bonds"), the Authority re-identified a portion of a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the "Series 2015 F Swap Agreement") with Wells Fargo Bank, N.A. in the notional amount of \$72,350,000.

The method of determining the floating interest rate payable in any period by the Counterparty under the Series 2015 F Swap Agreement is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2015 F Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2015 F Swap Agreement will be sufficient to pay the interest accruing on the Series 2015 F Bonds during such period.

The Series 2015 F Swap Agreement will terminate on January 1, 2022 (the final maturity date of the Series 2015 F Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority's Financial Advisor, as of December 31, 2015, the Series 2015 F Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$7,381,124.

#### **Series 2015 G Swap Agreement**

In connection with its \$25,000,000 Turnpike Revenue Bonds, Series 2015 G (the "Series 2015 G Bonds"), the Authority re-identified a portion of a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the "Series 2015 G Swap Agreement") with Wells Fargo Bank, N.A. in the notional amount of \$25,000,000.

The method of determining the floating interest rate payable in any period by the Counterparty under the Series 2015 G Swap Agreement is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2015 G Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2015 G Swap Agreement will be sufficient to pay the interest accruing on the Series 2015 G Bonds during such period.

The Series 2015 G Swap Agreement will terminate on January 1, 2024 (the final maturity date of the Series 2015 G Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority's Financial Advisor, as of December 31, 2015, the Series 2015 G Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$2,901,760.

### **Series 2015 H Swap Agreement**

In connection with its \$48,235,000 Turnpike Revenue Bonds, Series 2015 H (the "Series 2015 H Bonds"), the Authority re-identified a portion of a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the "Series 2015 H Swap Agreement") with Wells Fargo Bank, N.A. in the notional amount of \$48,235,000.

The method of determining the floating interest rate payable in any period by the Counterparty under the Series 2015 H Swap Agreement is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2015 H Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2015 H Swap Agreement will be sufficient to pay the interest accruing on the Series 2015 H Bonds during such period.

The Series 2015 H Swap Agreement will terminate on January 1, 2022 (the final maturity date of the Series 2015 H Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority's Financial Advisor, as of December 31, 2015, the Series 2015 H Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$4,888,450.

### **Series 2016 B Swap Agreement**

In connection with its \$75,025,000 Turnpike Revenue Bonds, Series 2016 B (the "Series 2016 B Bonds"), the Authority re-identified a portion of a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the "Series 2016 B Swap Agreement") with Wells Fargo Bank, N.A. in the notional amount of \$75,025,000.

The method of determining the floating interest rate payable in any period by the Counterparty under the Series 2016 B Swap Agreement is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2016 B Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2016 B Swap Agreement will be sufficient to pay the interest accruing on the Series 2016 B Bonds during such period.

The Series 2016 B Swap Agreement will terminate on January 1, 2023 (the final maturity date of the Series 2016 B Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority's Financial Advisor, as of December 31, 2016, the Series 2016 B Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$8,656,809.

### **Series 2016 C Swap Agreement**

In connection with its \$50,015,000 Turnpike Revenue Bonds, Series 2016 C (the “Series 2016 C Bonds”), the Authority re-identified a portion of a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the “Series 2016 C Swap Agreement”) with Wells Fargo Bank, N.A. in the notional amount of \$50,015,000.

The method of determining the floating interest rate payable in any period by the Counterparty under the Series 2016 C Swap Agreement is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2016 C Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2016 C Swap Agreement will be sufficient to pay the interest accruing on the Series 2016 C Bonds during such period.

The Series 2016 C Swap Agreement will terminate on January 1, 2023 (the final maturity date of the Series 2016 C Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority’s Financial Advisor, as of December 31, 2016, the Series 2016 C Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$5,730,501.

### **Series 2016 D Swap Agreement**

In connection with its \$50,000,000 Turnpike Revenue Bonds, Series 2016 D (the “Series 2016 D Bonds”), the Authority re-identified a portion of a then-existing Interest Rate Swap Agreement in order to hedge the interest rate on those Bonds (the “Series 2016 D Swap Agreement”) with Wells Fargo Bank, N.A. in the notional amount of \$50,000,000.

The method of determining the floating interest rate payable in any period by the Counterparty under the Series 2016 D Swap Agreement is meant to closely approximate the method of determining the floating interest rate payable in such period by the Authority for the Series 2016 D Bonds. However, there can be no assurance that the floating amounts received in any period by the Authority under the Series 2016 D Swap Agreement will be sufficient to pay the interest accruing on the Series 2016 D Bonds during such period.

The Series 2016 D Swap Agreement will terminate on January 1, 2024 (the final maturity date of the Series 2016 D Bonds), unless terminated sooner in accordance with its terms. As calculated by the Authority’s Financial Advisor, as of December 31, 2016, the Series 2016 D Swap Agreement had a negative fair value (including accrued interest) to the Authority of approximately \$5,803,543.

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## DIRECT PURCHASE TRANSACTIONS

The following table summarizes the terms of the Authority's direct purchase transactions as of the date of this Official Statement. The Series 2013 B Bonds, the Series 2015 A Bonds, the Series 2015 B Bonds, the Series 2015 C Bonds, the Series 2015 D Bonds, the Series 2015 F Bonds, the Series 2015 G Bonds, the Series 2015 H Bonds, the Series 2016 B Bonds, the Series 2016 C Bonds and the Series 2016 D Bonds are on parity with all Bonds Outstanding under the Resolution from time to time, including the Series 2017 A Bonds, and the Authority's reimbursement and payment obligations under certain Credit Facilities and Qualified Swaps. See "SECURITY FOR THE BONDS" herein.

Series of Bonds	Direct Purchaser	Tax-Exempt or Federally Taxable	Final Maturity Date	Par Amount	Floating Rate <sup>(1)</sup>	Interest Rate Reset	Mandatory Tender Date
2013 B	TD Bank, National Association	Tax-Exempt	01/01/2018	\$100,000,000	75% of the sum of 1-month LIBOR + 79 bp	Monthly	n/a
2015 A	DNT Asset Trust	Tax-Exempt	01/01/2024	92,500,000	67% of 1-month LIBOR + 78 bp	Monthly	n/a
2015 B	Citibank, N.A.	Tax-Exempt	01/01/2024	50,000,000	75% of 1-month LIBOR + 45 bp	Monthly	1/1/2020
2015 C	DNT Asset Trust	Tax-Exempt	01/01/2024	43,750,000	67% of 1-month LIBOR + 70 bp	Monthly	n/a
2015 D	DNT Asset Trust	Tax-Exempt	01/01/2024	43,750,000	67% of 1-month LIBOR + 70 bp	Monthly	n/a
2015 F	U.S. Bank National Association	Tax-Exempt	01/01/2022	72,350,000	75% of 1-month LIBOR + 59.5 bp	Weekly	n/a
2015 G	TD Bank, N.A.	Tax-Exempt	01/01/2024	25,000,000	69.75% of 1-month LIBOR + 60 bp	Weekly	n/a
2015 H	DNT Asset Trust	Tax-Exempt	01/01/2022	48,235,000	67% of 1-month LIBOR + 74 bp	Monthly	n/a
2016 B	TD Bank, N.A.	Tax-Exempt	01/01/2023	75,025,000	70% of 1-month LIBOR + 63 bp	Weekly	n/a
2016 C	TD Bank, N.A.	Tax-Exempt	01/01/2023	50,015,000	70% of 1-month LIBOR + 63 bp	Weekly	n/a
2016 D	TD Bank, N.A.	Tax-Exempt	01/01/2024	50,000,000	70% of 1-month LIBOR + 64 bp	Weekly	n/a

<sup>(1)</sup> Such floating rates are subject to increase under certain circumstances as provided in the respective Certificates of Determination executed in connection with each Series of the Direct Purchase Bonds; provided, however, that in no event shall the floating rate exceed the Maximum Rate (the lesser of 12% or the highest rate allowed by applicable law).

Pursuant to the terms of each Series of the above-described Bonds (collectively, the “Direct Purchase Bonds”), in addition to being subject to mandatory tender for purchase on any Mandatory Tender Date set forth in the chart above, upon the occurrence of certain extraordinary mandatory purchase events (the “Extraordinary Mandatory Purchase Events”), the respective Series of Direct Purchase Bonds may also be subject to mandatory tender for purchase at the option of the holder of such Series of Direct Purchase Bonds prior to the occurrence of such Mandatory Tender Date. In addition to the failure of the Authority to pay the debt service on any Bond or other parity obligation of the Authority, when due, and the occurrence of an Event of Default under the Resolution, the Extraordinary Mandatory Purchase Events generally include (i) the rating on the Bonds is reduced to or below BBB by Fitch or S&P or Baa2 by Moody’s, or removed, suspended or withdrawn, (ii) the occurrence of a determination of taxability with respect to the applicable Series of Direct Purchase Bonds, (iii) a judgment in the amount of \$10,000,000 or more is entered against the Authority which is not covered by insurance and which is not discharged, stayed or bonded within 45 days after the entry of such judgment, (iv) any court or other governmental authority shall rule that any provision of the Resolution relating to payment and security of the Bonds or any provision of the applicable Bondholder Agreement entered into by and between the Authority and the purchaser of each Series of the Direct Purchase Bonds is not valid and binding on the Authority, (v) the Authority, or any person on its behalf, shall contest the validity or enforceability any provision of the Resolution relating to payment and security of the Bonds or any provision of the applicable Bondholder Agreement, (vi) if, for any other reason, any provision of the Resolution relating to payment and security of the Bonds or any provision of the applicable Bondholder Agreement shall cease be to valid and binding on the Authority, (vii) the failure of the Authority to pay, when due, any Subordinated Indebtedness in an aggregate outstanding principal amount of \$5,000,000 or more, or the occurrence of any event of default by the Authority under any agreement or instrument relating to such Subordinated indebtedness, and (viii) the occurrence of an event of default under the applicable Bondholder Agreement. In the event that the Authority cannot pay the purchase price for all or a portion of such Series of Bonds on the Mandatory Tender Date or any such extraordinary mandatory purchase date, (i) 50% of the principal amount of any unpurchased Bonds will be subject to mandatory redemption on the date that is one year after such Mandatory Tender Date or extraordinary mandatory purchase date, at a Redemption Price equal to 100% of the principal amount of such Direct Purchase Bonds to be redeemed plus accrued interest to the redemption date, and (ii) the entire remaining aggregate principal amount of such unpurchased Bonds will be subject to mandatory redemption on the date that is two years after such Mandatory Tender Date or extraordinary mandatory purchase date, at a Redemption Price equal to 100% of the principal amount of such Direct Purchase Bonds to be redeemed plus accrued interest to the redemption date. A copy of each Bondholder Agreement has been filed with, and is available to be viewed on, the Electronic Municipal Market Access (“EMMA”) system of the Municipal Securities Rulemaking Board located at [www.emma.msrb.org](http://www.emma.msrb.org).

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## ESTIMATED SOURCES AND USES OF FUNDS

The estimated sources and uses of funds for the Series 2017 A Bonds are as follows:

### Sources of Funds:

Par Amount of Series 2017 A Bonds.....	\$ 600,000,000
Net Original Issue Premium on Series 2017 A Bonds.....	<u>87,535,069</u>
<b>Total Sources of Funds .....</b>	<b><u>\$ 687,535,069</u></b>

### Uses of Funds:

Deposit to Construction Fund.....	\$ 676,491,153
Deposit to Debt Reserve Fund <sup>(1)</sup>	9,330,382
Costs of Issuance <sup>(2)</sup> .....	<u>1,713,534</u>
<b>Total Uses of Funds .....</b>	<b><u>\$ 687,535,069</u></b>

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<sup>(1)</sup> This deposit will provide an amount sufficient to satisfy the increase in the Debt Reserve Requirement resulting from the issuance of the Series 2017 A Bonds.

<sup>(2)</sup> Includes legal fees, financial advisory fees, Trustee fees, rating agency and consulting fees and costs, underwriters' discount, and other costs of issuance, including rounding amount.

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## AGGREGATE BOND DEBT SERVICE REQUIREMENTS

The table below shows debt service after the issuance of the Series 2017 A Bonds.

<b>Fiscal Year Ending December 31</b>	<b>Debt Service on Outstanding Bonds<sup>(1),(2),(3)</sup></b>	<b>Series 2017 A Bonds<sup>(1)</sup></b>		<b>Total Debt Service After Issuance of Series 2017 A Bonds*</b>
		<b>Principal</b>	<b>Interest</b>	
2017	\$ 801,779,320	--	\$ 21,240,068	\$ 823,019,388
2018	769,616,864	--	29,409,325	799,026,189
2019	807,456,164	--	29,409,325	836,865,489
2020	822,885,275	--	29,409,325	852,294,600
2021	820,606,951	--	29,409,325	850,016,276
2022	851,295,217	--	29,409,325	880,704,542
2023	854,875,452	--	29,409,325	884,284,777
2024	847,339,752	--	29,409,325	876,749,077
2025	852,789,133	--	29,409,325	882,198,458
2026	759,382,323	\$ 59,220,000	29,409,325	848,011,648
2027	821,632,622	14,560,000	26,448,325	862,640,947
2028	744,639,235	69,705,000	25,720,325	840,064,560
2029	739,532,577	60,060,000	22,235,075	821,827,652
2030	732,490,750	66,665,000	19,232,075	818,387,825
2031	732,489,850	70,000,000	15,898,825	818,388,675
2032	732,387,100	93,555,000	12,398,825	838,340,925
2033	732,492,600	102,175,000	7,721,075	842,388,675
2034	802,641,000	45,115,000	2,612,325	850,368,325
2035	851,646,506	18,945,000	663,075	871,254,581
2036	851,588,565	--	--	851,588,565
2037	851,562,682	--	--	851,562,682
2038	851,536,230	--	--	851,536,230
2039	851,512,910	--	--	851,512,910
2040	851,481,490	--	--	851,481,490
2041	210,471,300	--	--	210,471,300
2042	210,476,750	--	--	210,476,750
2043	105,557,800	--	--	105,557,800
2044	105,560,000	--	--	105,560,000
<b>TOTAL*</b>	<b><u>\$ 19,967,726,419</u></b>	<b><u>\$ 600,000,000</u></b>	<b><u>\$ 418,853,918</u></b>	<b><u>\$ 20,986,580,337</u></b>

\* Totals may not add up due to rounding.

<sup>(1)</sup> Debt Service payable on January 1 of each year is included in the debt service for the prior fiscal year.

<sup>(2)</sup> Interest assumed to be paid at fixed swap rate for any variable rate bonds swapped to fixed rate and does not include fees such as those for letters of credit, standby agreements, remarketing fees, or any potential mismatch between the bond variable rate and swap variable rate. Spreads over the variable rate index on variable rate bonds are included in the calculation of the interest accruing on such bonds and are assumed to be constant through final maturity of the associated variable rate bonds.

<sup>(3)</sup> Interest on the \$5,000,000 unhedged portion of the Outstanding Turnpike Revenue Bonds, Series 2015 A, is calculated at the Maximum Rate of 12%.

## **THE AUTHORITY**

All of the financial information of the Authority as of and for the year ended December 31, 2016 included in this Section entitled “THE AUTHORITY” and in Appendix A-1 entitled “SELECTED UNAUDITED FINANCIAL INFORMATION OF THE AUTHORITY FOR THE YEAR ENDED DECEMBER 31, 2016” to this Official Statement is unaudited as of the date of this Official Statement and is expected to change upon the completion of the audit of the financial statements of the Authority as of and for the year ended December 31, 2016, which will not occur until after the date of issuance and delivery of the Series 2017 A Bonds. Additionally, as permitted by the Authority’s existing continuing disclosure agreements relating to its outstanding Bonds, the Authority anticipates filing draft unaudited financial statements as of and for the year ended December 31, 2016 with EMMA by no later May 1, 2017 (the filing deadline under the Authority’s existing continuing disclosure agreements), and subsequently filing audited financial statements as of and for the year ended December 31, 2016 with EMMA when they become available. As of the date of the Official Statement, the Authority has not received the necessary information from the Public Employees Retirement System (PERS) of the State of New Jersey to report its proportionate share of the PERS net pension liability, as well as the related deferred inflows and outflows of resources and expenses, as of and for the year ended December 31, 2016. The audit of the financial statements of the Authority as of and for the year ended December 31, 2016 cannot be completed until after such information is received. See “THE AUTHORITY – Pension and OPEB Obligations” herein.

### **General**

The Authority is a body corporate and politic of the State organized and existing by virtue of the Act and is a public instrumentality exercising essential governmental functions. The Authority is empowered to acquire, construct, maintain, repair, and operate projects at locations established by law, to fix and establish tolls for the use of the Turnpike System, and to issue revenue bonds for its purposes.

### **Abolishment of Highway Authority**

In July 2003, the Highway Authority was abolished and the Authority assumed all powers, rights, obligations, assets, debts, liabilities, and statutory responsibilities and duties of the Highway Authority, including the ownership and operation of the Parkway. As a result, the assets and liabilities of the Authority and the Highway Authority and the ongoing operations, expenses, and revenues of the Turnpike and the Parkway are now combined under the ownership and operation of the Authority.

### **Certain Powers**

The Act authorizes the Authority to acquire, improve, construct, maintain, repair, manage, and operate transportation projects or any part thereof at such locations as established by law or by the Authority and to exercise the power of eminent domain in connection with any of its corporate purposes.

The Act also authorizes the Authority to issue revenue bonds maturing not later than forty (40) years from their date or dates for any of its corporate purposes, payable solely from or secured by a pledge of tolls, other revenues of transportation projects, and the proceeds of such bonds. The Act provides that such bonds shall not be deemed to constitute a debt or liability of the State or of any political subdivision thereof, or a pledge of the faith, credit or taxing power of the State or of any such political subdivision, but that such bonds shall be payable from funds pledged or available for their payment as authorized in the Act. The Authority is also empowered to issue notes for any of its corporate purposes in the same manner as bonds are issued under the Act.

In addition, the Authority has the power, by resolution, to fix and revise from time to time and charge and collect tolls, fees, licenses, rents, concessions, and other charges for each transportation project or part thereof constructed or acquired by it; and, subject to any agreement with bondholders, to invest moneys of the Authority not required for immediate use, including proceeds from the sale of any bonds, in such obligations, securities and other investments as the Authority shall deem prudent. Pursuant to the Act, whenever the Authority desires to increase any existing toll or establish any new toll for the use of any highway project, including the Turnpike and/or the Parkway, it is required to hold a public hearing on such proposed toll at least 45 days prior to the date on which such toll is proposed to become effective.

The Act provides that no resolution or other action of the Authority providing for the issuance of bonds, refunding bonds or other obligations or for the fixing, revising or adjusting of tolls for the use of the Turnpike System or any parts or sections thereof shall be adopted or otherwise made effective by the Authority without the prior approval in writing of the Governor and the Treasurer of the State. In addition, the Act requires that a true copy of the minutes of every meeting of the Authority shall be forthwith delivered to the Governor and that no action taken at such meeting by the Authority shall have force or effect until 10 days, exclusive of Saturdays, Sundays and public holidays, after such copy of the minutes shall have been so delivered. If, during such 10-day period, the Governor returns such copy of the minutes with a veto of any action taken by the Authority, or any member thereof, at such meeting, such action shall be null and of no effect. The Act permits the Governor to approve all or part of the action taken at such meeting prior to the expiration of such 10-day period. The Act further provides that the powers conferred upon the Governor and the Treasurer of the State described above shall be exercised with due regard for the rights of the holders of bonds of the Authority at any time outstanding, and nothing in, or done pursuant to, the Act shall in any way limit, restrict or alter the obligation or powers of the Authority or any representative or officer of the Authority to carry out and perform in every detail each and every covenant, agreement or contract at any time made or entered into by or on behalf of the Authority with respect to its bonds or for the benefit, protection or security of the holders thereof.

## **Governance**

The Act provides that the Board of Commissioners of the Authority shall consist of eight members as follows: the Commissioner of the New Jersey Department of Transportation, ex officio, or his designee; five members appointed by the Governor with the advice and consent of the Senate; one member appointed by the Governor upon recommendation of the President of the Senate; and one member appointed by the Governor upon recommendation of the Speaker of the General Assembly. Members of the Authority (other than the Commissioner of Transportation) sit for a term of five years and until a successor is appointed and has been confirmed. Five members of the Authority constitute a quorum and the vote of five members is necessary for any action taken by the Authority. The Governor designates the chairman and vice chairman, who serve in these positions at the pleasure of the Governor and until their successors have been designated. The Authority elects its secretary and treasurer, neither of whom need be members. All Authority members serve without compensation but are reimbursed for actual expenses incurred in the performance of duties.

The current members of the Authority are as follows:

*RICHARD T. HAMMER* (Commissioner; Chairman), of Cream Ridge, Monmouth County. Mr. Hammer was appointed Acting Commissioner of the New Jersey Department of Transportation and Chairman of the Authority on October 30, 2015. His previous assignments have included 14 years in the Bureau of Structural Evaluation of the New Jersey Department of Transportation and 10 years in the Division of Project Management of the New Jersey Department of Transportation. Mr. Hammer holds a B.S. in Civil Engineering from Rutgers University.

*RONALD GRAVINO* (Commissioner; Vice Chairman), of Edison, Middlesex County. Mr. Gravino is Vice President for finance and human resources at Invidi Technologies Corp. in Princeton,

which he joined after many years as a financial/turnaround consultant. He serves as chairman of the Newark Liberty International Airport Advisory Board and on the boards of the Transportation Finance Review Commission and the Garden State Arts Foundation. He served for six years as a commissioner of the former New Jersey Highway Authority, including a term as chairman. Mr. Gravino earned a B.A. in Accountancy from Charter Oak College in Hartford, Connecticut. Mr. Gravino's term expired in February 2014, and he is currently serving in a hold-over capacity.

*MICHAEL R. DUPONT* (Commissioner; Treasurer), of Red Bank, Monmouth County. Mr. DuPont is a partner in the law firm McKenna, DuPont, Higgins & Stone. He serves as a member of the Red Bank Borough Council and chairman of its Finance Committee. He has worked on the transition teams of Governor Jon S. Corzine and former Governor James E. McGreevey. He serves as President of the Garden State Arts Foundation. Mr. DuPont earned a B.A. in Political Science and Business Administration from Loyola University and a J.D. from the John Marshall Law School. Mr. DuPont's term expired in February 2013, and he is currently serving in a hold-over capacity.

*RAYMOND M. POCINO* (Commissioner), of Moorestown, Burlington County. Mr. Pocino is a 50-year member of the Laborers International Union of North America (LIUNA) and holds the title of President Emeritus with the 3,500-member Construction & General Laborers Local 172 in Trenton. He has been manager of the Eastern Region Office of LIUNA since 1995 and serves on its Executive Board. He also serves on the Executive Board of the New Jersey AFL-CIO and on the board of the Port Authority of New York & New Jersey. He is serving his fifth term on the Authority. Mr. Pocino's current term expired in February 2011, and he is currently serving in a hold-over capacity.

*ULISES E. DIAZ* (Commissioner), of Rutherford, Bergen County. Mr. Diaz is employed at Verizon Communications, where he is responsible for the development of Verizon's government affairs activities and legislative programs for New Jersey. He previously was employed at United Water New Jersey for several years, where he was responsible for all external affairs activities, including government and public affairs, communications and business development. He holds a B.A. in Business Administration from Rutgers University. Mr. Diaz's term expired in February 2010, and he is currently serving in a hold-over capacity.

*DANIEL F. BECHT* (Commissioner), of Wall Township, Monmouth County. Mr. Becht is executive director of the Jersey City Municipal Utilities Authority and counsel to the Newark Planning Board. He previously served as vice chairman of the New Jersey Lottery, chairman of the Passaic Valley Sewerage Authority and as a commissioner on the New Jersey Law Revision Commission and the New Jersey Public Broadcasting Authority. He holds a B.S. in business from St. John's University and a J.D. from New York Law School. Mr. Becht's term expired in February 2012, and he is currently serving in a hold-over capacity.

*JOHN D. MINELLA* (Commissioner), of Bayonne, Hudson County. John D. Minella is the Executive Director of the Hudson County Democratic Organization. He retired from the Authority in 2011 after more than 25 years of service. For most of his tenure, he served as Assistant Superintendent of Garden State Parkway Roadway Maintenance. Mr. Minella also previously worked as Management Specialist for the Office of the Mayor, Jersey City, and Real Estate Manager and Assistant Director, Public Service Employment, Jersey City Office of Employment and Training. He is the First Vice President of the Bayonne Chapter U.N.I.C.O., a member of the Loyal Order of Moose Lodge #266, and he has been a member of the Madeline Fiadini LoRe Foundation for Cancer Prevention since it was founded in 2008. He formerly served a member of the Jersey City Board of Education and Jersey City Municipal Utilities Authority, and as Chairman of Jersey City Sewerage Authority. He is a graduate of St. Peters College, Jersey City. Mr. Minella's term expires in July 2018.

There is currently one vacancy on the Board of Commissioners of the Authority.

The Authority is empowered to appoint such officers, employees and agents as may be necessary in its judgment. The Commissioners have created the executive staff positions of Executive Director, Chief Operating Officer and Chief Financial Officer, among others. The Authority's executive staff currently includes:

*JOSEPH W. MROZEK* (Executive Director), of Scotch Plains, Union County. Mr. Mrozek was named Executive Director of the Authority in March 2014. Previously, he served for four years as Deputy Commissioner of the New Jersey Department of Transportation. Before he went to work for NJDOT, Mr. Mrozek accumulated more than 30 years' experience in both staff and line senior management positions in the private sector, including Managing Partner of Moffitt International Inc.'s Northeast Division. He holds a B.S. and an M.B.A. from Seton Hall University and has completed programs in finance, strategic planning and international marketing at the Wharton School and the Columbia Graduate School of Business.

*JOHN F. O'HERN* (Chief Operating Officer and Deputy Executive Director), of Hoboken, Hudson County. Mr. O'Hern became the Deputy Executive Director in October 2008 and was named Chief Operating Officer in August 2012. He has worked at the Authority since January 2003, serving as Assistant to the Deputy Executive Director from 2003 to 2006 and Director of Labor Relations from 2006 to 2008. Previously, Mr. O'Hern was employed by the New Jersey Attorney General's Office. He holds a B.A. from Lafayette College, a J.D. from Seton Hall University School of Law, and an M.P.A. from Harvard University's John F. Kennedy School of Government.

*DONNA MANUELLI* (Chief Financial Officer), of Hillsborough, Somerset County. Ms. Manuelli was promoted to Chief Financial Officer in December 2010. She has served the Authority for the past twenty years, holding various positions of increasing responsibility in the organization. She previously served as Comptroller from 2005 – 2010 and as Assistant Comptroller from 1999 – 2005. Prior to joining the Authority, Ms. Manuelli was a Vice President at Midlantic National Bank, where she spent ten years in credit analysis and asset based lending. Ms. Manuelli currently serves on the Finance Committee of the E-ZPass Group, an organization of toll roads and bridges throughout the United States, and was Chairperson for three years. Ms. Manuelli received a B.S. degree in Business Administration with a concentration in Finance from Villanova University where she graduated Cum Laude and has taken graduate level courses at Rutgers University.

## **The Turnpike**

The Turnpike is a limited access toll road that serves as part of the I-95 corridor linking the major economic centers of the East Coast. Its connections to a major seaport in Newark and Elizabeth and a major airport in Newark make it an important route for both commercial and passenger vehicles. It also serves New Jersey commuters traveling to and from the major metropolitan areas surrounding Philadelphia and New York City and other employment centers in the State.

The Turnpike consists of a 122-mile mainline and two extensions. Originally, the mainline ran from Deepwater, Salem County, to US Route 46 in Ridgefield Park, Bergen County, a distance of approximately 117.5 miles. In 1992, the Authority acquired the 4.4-mile section of Interstate 95 extending from the northern terminus of the Turnpike mainline to Fort Lee, Bergen County, at the crossing of Route 9W (Fletcher Avenue), a short distance west of the George Washington Bridge toll plaza (the "I-95 Extension"). Approximately three miles west of this location lies a full directional interchange with Interstate 80, a significant traffic generator for the Turnpike. At the southern terminus, the Turnpike connects, via a short section of US Route 40, with the Delaware Memorial Bridge.

The Newark Bay-Hudson County extension, which opened in 1956, is a four-lane, 8.3-mile spur that extends from Interchange 14 on the mainline Turnpike, near Newark Liberty Airport, to the Holland Tunnel plaza in Jersey City, Hudson County. It includes a high-level bridge over Newark Bay. There are

three interchanges on the extension: Interchange 14A (Bayonne), Interchange 14B (Jersey City) and Interchange 14C (Holland Tunnel).

The Pearl Harbor Memorial Turnpike extension, which opened in 1956, is a 6.6-mile, six-lane spur that connects the Turnpike to the Pennsylvania Turnpike. The extension begins at a junction with the mainline Turnpike at Interchange 6 (Mansfield, Burlington County) and ends at the Delaware River. The bridge across the Delaware River at that point was bonded and constructed jointly by the Authority and the Pennsylvania Turnpike Commission. A full interchange connecting the extension to Route 130 in Florence Township, New Jersey, was opened in 1999.

The Turnpike roadway is two lanes in each direction from Interchange 1 (Deepwater) to Interchange 4 (Camden-Philadelphia) and three lanes in each direction from Interchange 4 to Interchange 6 (Pennsylvania Turnpike).

From Interchange 6 to north of Interchange 14 (Newark), the Turnpike is configured as a “dual/dual” highway; it has two distinct sets of roadways in each direction, an inner roadway and an outer roadway. Under normal operating conditions, truck, bus, and passenger car traffic is permitted on the outer roadways, but only passenger car traffic is permitted on the inner roadways. Ramps at the interchanges enable traffic to enter or exit the Turnpike from any of the four roadways.

Vehicles are prevented from crossing back and forth between the inner and outer roadways by a median with a guardrail. Crossovers have been provided on those medians to allow access to emergency and maintenance vehicles and to provide for the detouring of traffic under police control if an accident should block one of the roadways. The northbound and southbound roadways are separated by a specially designed, crash-tested, heavy concrete barrier to prevent cross-over traffic. Grade-separated U-turn structures have been provided at appropriate locations so that police, maintenance, and other vehicles can change direction safely.

Between Interchanges 6 (Mansfield) and 11 (Woodbridge), there are 12 lanes total, three outer and three inner in each direction. And from Interchange 11 to Interchange 14 (Newark), there are 14 total lanes, four lanes in each direction on the outer roadways and three in each direction on the inner roadways.

North of Interchange 14, the inner and outer roadways of the Turnpike merge and divide through a complex configuration referred to as the “Southern Mixing Bowl” to follow two separate alignments, one west of the Hackensack River, the other, east of the Hackensack River. The Westerly Alignment is six lanes from north of the Southern Mixing Bowl to the NJ Route 3 crossing; it narrows to four lanes from north of this point to the point where it rejoins the Easterly Alignment just south of US Route 46. The Easterly Alignment is six lanes from the Southern Mixing Bowl to the confluence with the Westerly Alignment. North of northbound US Route 46, the roadway separates into dual express and local roadways leading to the George Washington Bridge.

A ground breaking ceremony was held in July 2009 for the construction of the Turnpike’s Interchange 6 to 9 Widening Program. The Program widened the Turnpike from Interchange 6 (Mansfield Township, Burlington County) to Interchange 9 (East Brunswick Township, Middlesex County), a linear distance of 35 miles. The Program was designed to relieve heavy and recurring congestion on this section of the Turnpike, improve operational and maintenance performance, and provide for the increased demand for capacity in the future. The construction added a total of 170 lane miles to the roadway by widening it from six to 12 lanes from two miles south of Interchange 6 to Interchange 8A (South Brunswick Township, Middlesex County), a distance of approximately 25 miles, and from 10 lanes to 12 lanes between Interchange 8A and Interchange 9, a distance of 10 miles. The Program created a dual/dual roadway between Interchange 6 and Interchange 8A and expanded the outer roadway in each direction between Interchange 8A and Interchange 9. The work included improvements at Interchange 7A and the construction of a new toll plaza at Interchange 8. The Program was completed

in the fall of 2014 with the opening of the northbound lanes on October 26, 2014, and the southbound lanes on November 2, 2014 at an estimated cost of \$2.2 billion.

## **The Parkway**

The Parkway is a 173-mile limited access toll road with connections in the south to Route 9 near Cape May, New Jersey, and in the north to the New York State Thruway at the New York-New Jersey border near Spring Valley, New York. The Parkway interchanges are numbered according to their distance from the southern terminus.

The northern section of the Parkway serves the metropolitan suburban areas in Bergen, Union, Essex, and Passaic Counties near Newark and New York City. In addition to being heavily used by commuters, the location of many businesses and industrial complexes in or near the Parkway corridor has resulted in significant local business traffic. The Parkway also is the principal highway route between metropolitan Newark-New York City and the New Jersey seashore. Heavy trucks are not allowed north of Interchange 105.

For approximately 135 miles, the Parkway is distinguished by a wide natural-area median separating northbound from southbound traffic. The purpose of the median is threefold: to prevent head-on collisions between traffic traveling in opposite directions, to prevent visual interference by opposing traffic, and to provide areas that allow extensive flexibility in road configuration. The wide natural-area median is a distinctive feature of the Parkway.

Three sections of the Parkway were constructed by NJDOT and maintained by that agency until June 30, 1987. On July 1, 1987, the Highway Authority took ownership of those sections together with all previous responsibilities and obligations. These sections total approximately 19 miles and include a 13-mile link between US Route 22 and US Route 9 in Union and Middlesex Counties, a two-mile link in Ocean County, and a four-mile link in Cape May County. These portions of the road are known collectively as the “State Sections.” The term “Parkway” as used herein includes the State Sections. No tolls are charged on the State Sections.

The Parkway is four lanes (two in each direction) from Cape May to milepost 48, six lanes to milepost 91, eight lanes to milepost 102, 10 lanes to milepost 117, 12 lanes to milepost 127, 10 lanes to milepost 140, eight lanes to milepost 145, six lanes to milepost 168, and four lanes to the New York border.

The widening of the Parkway from milepost 63 in Stafford Township to milepost 80 in South Toms River opened in May 2011 was funded as part of the Capital Improvement Program. This widening program was designed to relieve heavy traffic congestion and to improve motorist safety by the addition of one new lane in both the northbound and southbound directions and full-width shoulders. In addition to the widening from milepost 63 to 80, the Parkway was widened from milepost 48 to 63. The widening to milepost 52 opened in the spring of 2014. The remaining widening of this section to milepost 48 was opened in May 2015 upon the completion of the rehabilitation of the Bass River Bridge. The final phase of the Parkway widening from milepost 48 to 35 is under construction. The third lane between milepost 41 and 48 was opened in June 2016. The remaining portion of the Parkway widening is projected to be completed in the spring of 2018.

## **Status of Delaware River Bridge**

On January 20, 2017, the Delaware River Turnpike Bridge between New Jersey and Pennsylvania, which permits traffic on the Authority’s Pearl Harbor Memorial Turnpike Extension to connect with the Pennsylvania Turnpike, was fully closed for emergency repairs when workers discovered a crack in one of the structural support members of the bridge. The bridge is jointly owned and maintained by the Authority and the Pennsylvania Turnpike Commission (“PTC”) and all costs of

operation, maintenance and repair of the bridge are shared equally by the Authority and the PTC. After the completion of certain repairs and extensive examination and testing of the bridge over several weeks by the Authority, the PTC and the Federal Highway Administration and their respective experts and consultants, the bridge was fully reopened to traffic on March 9, 2017. Although further minor repairs will be performed on the bridge in the coming months, it is anticipated that the bridge will remain open while such future repairs are being made. The Authority estimates that its 50% share of the costs of the repair, examination and testing of the bridge will be approximately \$10,000,000, which will be paid by the Authority from available moneys currently on hand in the Maintenance Reserve Fund. The Authority's Traffic Engineer has projected that the closure of the bridge resulted in the Authority incurring a loss of toll revenue on the Turnpike during the period between January 20, 2017 and March 12, 2017 of approximately \$8,000,000, which has been included in the projections of the Authority's Turnpike toll revenues for calendar year 2017 included in the 2017 Drawn Down Letter of the Traffic Engineer. See "THE AUTHORITY – Summary of Projected Operations by the Traffic Engineer" herein and APPENDIX B – "2017 DRAW DOWN LETTER, 2015 DRAW DOWN LETTER AND REPORT OF TRAFFIC ENGINEER" hereto.

### Capital Improvement Program

In October 2008, the Authority adopted and approved the extensive Capital Improvement Program for the Turnpike System. The Capital Improvement Program currently provides for the expenditure by the Authority of an estimated aggregate amount of approximately \$7,000,000,000 through the end of the Capital Improvement Program to fund the Costs of Construction of various Projects involving capital improvements to the Turnpike System, including, without limitation, the widening of certain sections of both the Turnpike and the Parkway. The estimated total cost of the Capital Improvement Program and the estimated cost of each individual Project included in the Capital Improvement Program are subject to change based upon varying economic conditions and other factors which may occur during the term of the Capital Improvement Program. In addition, the Projects included in the Capital Improvement Program are also subject to change at the discretion of the Authority. To date, the Capital Improvement Program has been proceeding on time and under the budget. The Projects currently included in the Capital Improvement Program are the following as of December 31, 2016:

<u>Project</u>	<u>Current Budget</u>	<u>Amount Spent or Committed to Date</u>
Turnpike Widening (Interchange 6-9)	\$ 2,231,399,000	\$ 2,140,569,000
Bridge Improvements	1,682,762,000	1,370,971,000
Interchange Improvements	1,026,431,000	938,679,000
Roadway Improvements	816,783,000	798,386,000
Facilities Improvements	652,625,000	627,227,000
Parkway Widening (Interchange 35-80)*	<u>590,000,000*</u>	<u>557,249,000</u>
	<u>\$ 7,000,000,000</u>	<u>\$ 6,433,081,000</u>

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\* Total costs of Parkway 35-80 Widening Program are \$690,000,000, however, \$100,000,000 of those costs were financed from the proceeds of bond anticipation notes prior to the issuance of the first Series of Bonds for the Capital Improvement Program.

For more information with respect to the Projects currently included in the Capital Improvement Program, see APPENDIX C – "REPORT OF CONSULTING ENGINEER" attached hereto.

The Authority has previously issued the Series 2009 E and F Bonds, the Series 2010 A Bonds, the Series 2013 A Bonds, the Series 2014 A Bonds and the Series 2015 E Bonds under the Resolution to fund a portion of the Costs of Construction of the various Projects included in the Capital Improvement



Program. The Series 2017 A Bonds are being issued by the Authority for the primary purpose of further funding the costs of the Capital Improvement Program. The Authority anticipates issuing one additional Series of Non-Refunding Bonds under the Resolution over the next 12 to 18 months, in an aggregate principal amount of approximately \$525,000,000, in order to further fund the remaining costs of the Capital Improvement Program. See “SECURITY FOR THE BONDS – Additional Indebtedness” herein. The toll increases which became effective on December 1, 2008 and January 1, 2012 on both the Turnpike and the Parkway, are anticipated to provide the Authority with sufficient Net Revenues to satisfy all of the requirements of the Resolution relating to the issuance of all Bonds expected to be hereafter issued by the Authority to fund the Costs of Construction of the various Projects comprising the Capital Improvement Program. See “SECURITY FOR THE BONDS – Toll Covenant” and “SECURITY FOR THE BONDS – Additional Indebtedness” herein and APPENDIX B – “2017 DRAW DOWN LETTER, 2015 DRAW DOWN LETTER AND REPORT OF TRAFFIC ENGINEER” and APPENDIX C – “REPORT OF CONSULTING ENGINEER” hereto.

## Summary of Historical Operations

### *The Turnpike*

Table 1(a) sets forth the annual traffic usage for passenger car, commercial, and non-revenue vehicles on the Turnpike for the 10 year period ending in 2016. Table 1(b) details the annual toll revenues from passenger cars and commercial vehicles on the Turnpike during the same 10 years.

<b>Table 1(a) – Turnpike – Number of Vehicles (000s)*</b>				
<u>Year</u>	<u>Passenger Cars</u>	<u>Commercial Vehicles<sup>(1)</sup></u>	<u>Non-Revenue Vehicles<sup>(2)</sup></u>	<u>Total Vehicles</u>
2007	216,625	33,163	1,839	251,627
2008	210,926	31,943	1,744	244,612
2009	205,366	28,738	1,802	235,906
2010	205,687	29,395	1,771	236,853
2011	203,626	29,603	1,417	234,645
2012	194,508	28,633	1,437	224,578
2013	195,208	29,278	1,504	225,990
2014	202,347	29,895	1,517	233,759
2015	215,358	31,239	1,558	248,155
2016	223,634	31,859	1,571	257,064

\* Totals may not add up due to rounding.

(1) Commercial vehicles include non-commuter buses.

(2) Non-revenue vehicles include commuter buses traveling during peak hours, towing operations, police, first aid responding to emergencies and employees traveling to and from work.

<b>Table 1(b) – Turnpike – Toll Revenues (\$000s)</b>			
<u>Year</u>	<u>Passenger Car Revenues</u>	<u>Commercial Vehicle Revenues<sup>(1)</sup></u>	<u>Total Toll Revenues</u>
2007	\$ 345,249	\$ 196,042	\$ 541,291
2008 <sup>(2)</sup>	345,394	195,289	540,683
2009	449,897	224,738	674,635
2010	446,045	227,848	673,893
2011	447,433	225,716	673,149
2012 <sup>(3)</sup>	667,987	324,033	992,020
2013	672,828	333,893	1,006,721
2014	695,130	342,614	1,037,744
2015	745,007	361,261	1,106,268
2016	776,337	368,221	1,144,558

<sup>(1)</sup> Commercial vehicles include non-commuter buses.

<sup>(2)</sup> Reflects a 40 percent toll increase on the Turnpike beginning December 1, 2008.

<sup>(3)</sup> Reflects a 53 percent toll increase on the Turnpike beginning January 1, 2012.

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## *The Parkway*

Table 2(a) below sets forth the annual number of transactions for passenger car, commercial and non-revenue vehicles on the Parkway for the 10 years ending in 2016. Table 2(b) sets forth the annual toll revenues from the Parkway during the same period. Because tolls are collected solely at barriers and ramps, only the number of transactions is tracked; the number of vehicles is not.

<b>Table 2(a) – Parkway – Number of Transactions (000s)*</b>				
<u>Year</u>	<u>Passenger Cars</u>	<u>Commercial Vehicles<sup>(1)</sup></u>	<u>Non-Revenue Vehicles<sup>(2)</sup></u>	<u>Total Vehicles</u>
2007	412,936	4,528	1,719	419,183
2008	402,413	4,619	1,617	408,650
2009	391,240	5,031	1,642	397,912
2010	377,718	4,758	1,638	384,114
2011	373,058	4,833	1,113	379,004
2012	361,333	4,824	1,297	367,453
2013	363,863	5,054	1,543	370,460
2014	365,337	5,012	1,497	371,846
2015	374,092	5,192	1,476	380,760
2016	384,586	5,024	1,458	391,068

\* Totals may not add up due to rounding.

(1) Trucks are only allowed below Exit 105 (Eatontown) on the Parkway.

(2) Non-revenue vehicles include towing operations, police, first aid responding to emergencies and employees traveling to and from work. The amounts shown above represent non-revenue transactions recorded through E-ZPass only; non-revenue tickets were issued prior to 2006.

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**Table 2(b) – Parkway – Toll Revenues (\$000s)**

<u>Year</u>	<u>Passenger Cars</u>	<u>Commercial Vehicles<sup>(1)</sup></u>	<u>Total Revenues</u>
2007	\$ 201,207	\$ 3,421	\$ 204,628
2008 <sup>(2) (3)</sup>	200,253	5,802	206,055
2009	267,340	10,444	277,784
2010	267,642	10,631	278,273
2011	264,842	10,888	275,730
2012 <sup>(4)</sup>	384,978	16,661	401,639
2013	390,296	16,746	407,042
2014	392,777	15,227	408,004
2015	400,910	15,955	416,865
2016	410,567	15,537	426,104

<sup>(1)</sup> Truck traffic is only allowed below Exit 105 (Eatontown) on the Parkway.

<sup>(2)</sup> The Parkway vehicle classification system was changed on December 1, 2008 to be the same as the Turnpike classification system. As a result, revenues for the entire year have been reclassified between passenger car and commercial vehicles to conform to the new classification system.

<sup>(3)</sup> Reflects a 43 percent toll increase on the Parkway beginning December 1, 2008.

<sup>(4)</sup> Reflects a 50 percent toll increase on the Parkway beginning January 1, 2012.

## **Service Areas and Concessions**

### *The Turnpike*

There are 12 service areas on the Turnpike. Six of them are accessible by only southbound traffic, five by only northbound traffic and one by both north- and southbound traffic. The facilities, which are open 24 hours a day, offer food, fuel and minor repair services, along with travel information, restrooms, automated teller machines and other conveniences.

HMS Host, Inc. (“HMS” or “HMS Host”) operates the food concessions at all 12 service areas. In October 1999, the Authority and HMS executed a Memorandum of Understanding (the “MOU”) for the renovation of 11 Turnpike service areas except the Molly Pitcher Service Area, located near Interchange 7 on the southbound side of the Turnpike at milepost 71.7, which was fully renovated in 1995. Construction began in September 2000 and was completed in 2004. The renovations included the functional aspects of each facility along with improved food selection, ancillary services for business travelers and expanded restroom facilities. The total cost was approximately \$41,000,000. HMS contributed approximately \$25,000,000, and the Authority paid the balance. In consideration for HMS’s financial contribution to the project, the Authority agreed to extend its operating agreement for 15 years. Under the terms of that operating agreement, the Authority receives 12% of gross sales at all areas except Molly Pitcher for which it receives 11% of gross sales. A minimum guaranteed annual concession fee has been established using the 1998 annual revenue with an escalator based on traffic growth. The first extended expiration date was December 31, 2018. In June of 2013, the Authority extended HMS’s contract to operate food concessions at the Turnpike service areas until December 31, 2020, thereby making HMS’s contracts for the Turnpike and Parkway coterminous. The Grover Cleveland Service

Area on the northbound side of the Turnpike in Woodbridge, New Jersey was closed for food services due to flooding and damages that occurred during Superstorm Sandy in October of 2012. In order to mitigate future flood damages and to provide more modern services, the restaurant building was demolished and replaced with a new building. The new building opened on November 23, 2015. Superstorm Sandy did not interrupt fuel service at this location.

Sunoco, Inc. (“Sunoco”) provides gasoline, diesel fuel and minor repair services at all service areas under a contract that will expire December 31, 2017. By contract, the fuel prices at the stations are adjusted once a week based on the Lundberg Survey. Revenues paid to the Authority under this contract are based on overall sales volume. Sunoco pays the Authority \$0.106 per gallon for the first 79 million gallons sold adjusted to \$0.1025 per gallon for each gallon thereafter, as well as 4% of gross convenience store sales. Sunoco and the Authority created a Diesel Fuel Discount Program to keep diesel fuel prices as low as possible in the Turnpike service areas. The program was designed to attract additional commercial traffic to the Turnpike, thus lessening the burden on local roads. Sunoco and the Authority each agreed to relinquish a share of their revenues from diesel fuel sales in order to keep the price down. The agreement has resulted in an increase of more than 200% in diesel fuel sales since the program’s inception on February 1, 1999. The Authority receives 50% of the gross margin on diesel fuels sales. The Authority believes that this program has increased commercial traffic on the Turnpike.

Gross revenues received by the Authority from all Turnpike service areas in 2016 were \$25,875,000.

### *The Parkway*

There are eight (8) service areas on the Parkway where food and fuel are sold and one (1) service area where only fuel is sold. Six of these full-service areas are accessible to north and southbound traffic, while one service area is available northbound only and one service area is available southbound only. The service area where only fuel is sold is accessible to only northbound traffic.

All of the service areas are owned by the Authority. Five of them are operated under license agreements with HMS Host. The agreement with HMS Host expires on December 31, 2020. Under the agreement, HMS Host pays the Authority a variable percentage of sales equal to 16.2% of the first \$36,000,000, 10% on the next \$14,000,000 in sales, and 14% of all gross sales exceeding \$50,000,000 annually. McDonald’s Corporation operates a restaurant at Brookdale South and Vauxhall service areas where food is available. The current agreement expires December 31, 2021. The Authority receives 14% of the first \$2,500,000 in gross sales at each store increasing to 18% of sales for all sales exceeding \$3,375,000. In exchange for the above-mentioned two-year extension of HMS’s contract to operate food concessions on the Turnpike, HMS agreed to demolish the Atlantic Service Area building at milepost 41.4 on the Parkway and replace it with a new building, which offers food services and public restrooms. The service area was demolished in late 2014 and the new Atlantic Service Area building opened on June 26, 2015.

In January 2011, Sunoco assumed the contract to operate the fuel stations at all nine (9) service areas. In October 2012, the Authority entered into a contract with Sunoco to extend its contract by one year to be coterminous with the Sunoco contract on the Turnpike which expires on December 31, 2017. In exchange, Sunoco assumed responsibility to operate the food and restroom facility at the Oceanview Service Area at milepost 18.3 and, at no cost to the Authority, it constructed a new building, which houses a convenience store, public restrooms, and a tourism kiosk. The new building opened on July 2, 2014. By contract, the fuel prices at those stations are adjusted once a week based on the Lundberg Survey. The Authority receives \$0.1025 per gallon sold with a guaranteed minimum of \$2,500,000, and 10% of gross convenience store sales.

In addition to the Authority owned service areas, PMG New Jersey II (“PMG”) operates one fueling station and convenience store on its property in Colonia, New Jersey, which abuts the Parkway

northbound at approximately milepost 133.6, and one fueling station and convenience store on its property in Iselin, New Jersey, which abuts the Parkway southbound at approximately milepost 132.7. On June 18, 2014, the Authority and PMG entered into an agreement whereby PMG remits to the Authority fifteen thousand dollars (\$15,000) per month related to PMG's operation of its facilities which have direct access to the Parkway. The initial term of the agreement ended on December 31, 2016 and it renews automatically every three (3) years thereafter for consecutive three (3) year renewal terms. The first renewal term began on January 1, 2017, as neither party terminated the agreement for cause. During each renewal term, the monthly fee increases by three percent (3%).

133 Colonia, L.L.C. operates one fueling station on its property in Colonia, New Jersey, which abuts the Parkway northbound at approximately milepost 133.6. 82 Iselin, L.L.C., operates one fueling station on its property in Iselin, New Jersey, which abuts the Parkway southbound at approximately milepost 132.7. On July 23, 2015, the Authority entered into agreement with 133 Colonia, L.L.C., and 82 Iselin, L.L.C., to operate a convenience store on each of their properties. Pursuant to such agreement, 133 Colonia, L.L.C. and 82 Iselin, L.L.C. will each pay the Authority \$5,000 per month when the stores are operational. It is anticipated that construction at the two (2) locations will be completed by December 31, 2017 and will become operational at that time.

Gross revenues received by the Authority during 2016 from all service areas on the Parkway were \$12,317,000.

### **E-ZPass Fees**

The Authority utilizes an electronic toll collection system to collect a majority of its toll revenue. The Authority is part of the New Jersey E-ZPass Group (the "NJ E-ZPass Group"), which includes the Authority, the South Jersey Transportation Authority, the Delaware River Port Authority, the Delaware River & Bay Authority, the Burlington County Bridge Commission, and the Delaware River Joint Toll Bridge Commission. On December 6, 2016, the NJ E-ZPass Memorandum of Agreement ("MOA") became effective. The MOA is an agreement between the agencies above clarifying their rights and responsibilities with respect to the terms and conditions of the contract with Xerox State & Local Solutions d/b/a Conduent relating to the operation of the E-ZPass electronic toll collection system in the State. See "THE AUTHORITY – Electronic Toll Collection" herein. The NJ E-ZPass Group shares a main Customer Service Center (the "NJ CSC") located in Newark, New Jersey, in addition to smaller satellite service centers that are a part of the NJ CSC. The Authority is the lead agency for the NJ E-ZPass Group and is primarily responsible for the group's financial and operational decisions. The NJ E-ZPass Group is part of the northeast regional E-ZPass Group which extends from Maine to North Carolina and as far west as Illinois. In 2016, over 82% of the Turnpike's transactions and over 79% of the Parkway's transactions were processed electronically. Customers of the NJ CSC can use their E-ZPass account anywhere E-ZPass is accepted.

The Authority receives fees and other related income from the operation of E-ZPass system on the Turnpike and the Parkway. In 2016, total E-ZPass fee revenue was \$62,579,000, as further discussed below.

Monthly membership fees of \$1.00 are assessed on account holders to help offset the cost of operations. In 2016, the Authority's portion of the membership fees was approximately \$24,385,000. Included with the account, customers receive account statements every other month. The NJ CSC also allows customers to receive monthly statements for a fee of \$6.00 per year. In 2016, the Authority received \$1,605,000 in statement fees.

Vehicles passing through a toll lane without paying the full toll due are treated as violators and, in addition to the toll due, are assessed an administrative fee designed to offset the increased collection costs. The current Administrative Fee is \$50.00 per violation on the Turnpike. Up to four violations can

be included on notices sent to Parkway violators for the same \$50.00 fee. The Authority collected administrative fees of \$31,581,000 in 2016.

The Authority owns, operates and maintains a fiber optic network which runs along the Turnpike, Parkway and Atlantic City Expressway and connects to the NJ CSC. The fiber is used to transmit toll data and other internal needs. The excess capacity of this network is leased to various commercial enterprises. In 2016, the Authority received \$1,527,000 from these leases.

Several parking authorities accept E-ZPass transponders as payment. The NJ CSC charges these authorities transaction fees to offset the costs of maintaining the customer accounts for this convenience. In 2016 the Authority recorded \$484,000 in parking fee revenue.

Other fees associated with the E-ZPass system include tag sales to business customers, bad check fees, interest income on deposits and damaged and returned tag fees. These fees amounted to \$2,997,000 in 2016.

### **Miscellaneous Revenues**

The Authority maintains contracts with several major telecommunications carriers that permit the carriers to construct, install, operate and maintain cellular towers at various locations along the Authority's right-of-way. This provides state of the art communications capability for the Authority, its patrons and others. The Authority may install its own radio transmitting and receiving equipment in the same locations. In 2016, the Authority received rent of \$5,378,000 for these sites.

A separate fiber optic network is located along the Parkway right-of-way. The excess capacity of this network is leased to various communications companies. The revenue produced from these leases in 2016 was \$1,683,000.

Under an agreement between the Authority and New Jersey Transit (the "NJT"), NJT operates the park/ride facility at the Vince Lombardi Service Area on the Turnpike in Ridgefield Park. The Authority also contracts with Academy Bus to operate the park/ride facility off Interchange 8A on the Turnpike in Cranbury and a parking lot at the Garden State Arts Center. In 2016, the Authority received revenues totaling \$724,000 for these parking facilities.

The Authority allows billboards to be operated at several locations along the Turnpike and Parkway. In April 2010, the Authority awarded a contract to Allvision Inc. to manage the Authority's billboard assets. Pursuant to this award, Allvision Inc. is marketing the Authority's billboard assets and upgrading several sites to digital billboards. In 2016, the Authority received rent payments of \$2,477,000 for the sites located along the roadways.

From time to time, the Authority is party to settlement agreements. In 2016, the Authority received \$3.2 million insurance settlement related to an engineering claim on an old bridge project, and \$1.0 million from a settlement in a Financial Industry Regulatory Authority (FINRA) proceeding.

The Authority received \$6,500,000 in disaster recovery funds from the Federal Emergency Management Agency (FEMA) related to Superstorm Jonas which occurred in January 2016.

### **Arts Center**

The PNC Bank Arts Center (the "Arts Center") is an entertainment facility located in the Telegraph Hill Nature Area, a 400-acre recreational tract along the Parkway in Holmdel. The facility, which opened in 1968, plays host to major touring performers.

The Arts Center is owned by the Authority and leased to a private operator, Live Nation Worldwide, Inc. The lease term runs from May 1, 1996 to December 31, 2017. Under a separate agreement (the “Naming Agreement”), which expires on December 31, 2017, PNC Bank, National Association, pays the Authority for the naming and marketing rights to the facility.

As of December 2004, the Arts Center became part of the Turnpike System for purposes of the Resolution and revenues received by the Authority from the Arts Center (other than revenues received pursuant to the Naming Agreement) became Pledged Revenues under the Resolution and the expenses, if any, incurred by the Authority in connection with the operation of the Arts Center became Operating Expenses of the Turnpike System for purposes of the Resolution.

The Authority received \$4,079,000 in gross revenues from the Arts Center in 2016.

## **Organization**

The Authority budgeted for 2,050 full-time employees for 2017. In addition to the full-time workforce, the Authority also employs part-time and temporary employees. There were 481 part-time and 126 temporary employees as of December 31, 2016.

The departments of the Authority include Executive, Finance and Budgets, Information Technology Services, Human Resources, Procurement & Materials Management, Law, Internal Audit, Engineering, Operations, Maintenance and Toll Collection.

There are eight (8) negotiating units representing different classifications of full-time Authority employees. These eight (8) unions represent approximately 95% of the Authority’s full-time workforce. All eight of the labor contracts expired in 2011. Since that time, the Authority has come to favorable terms with four (4) of the eight (8) unions. One of those four agreements expired on September 23, 2015. Therefore, the Authority is in negotiations with five (5) unions, which represent full-time employees, in order to put successor collective negotiations agreements in place. Under New Jersey public sector labor law, union employees are not permitted to strike but all terms and conditions of expired collective negotiations agreements remain in place until new agreements are agreed upon. In addition, there are three (3) negotiating units representing different classifications of part-time toll collectors. Each of these three (3) contracts expired on December 31, 2013. The bargaining units, along with the status of their collective negotiation agreements, are as follows:

- Local 97 Teamsters Industrial and Allied Workers Union, AFL/CIO represents office, clerical, and technical employees in the Administrative departments and in Parkway maintenance and Parkway tolls. The term of this agreement is November 1, 2011 through October 31, 2017.
- Local 193 International Federation of Professional and Technical Engineers (“IFPTE”) represents Parkway Toll Supervisors. The term of this agreement is October 1, 2011 through September 30, 2019.
- Local 193C IFPTE represents Parkway Crew Supervisors. The term of this agreement was July 1, 2007 through June 30, 2011.
- Local 194 IFPTE represents Turnpike toll collection and Turnpike maintenance employees. Local 194 IFPTE also represents office, clerical and technical employees in Administrative departments and in Turnpike maintenance and Turnpike tolls. The term of this agreement was July 1, 2007 through June 30, 2011.



- Local 194 IFPTE Part-Time Toll Collectors represents Turnpike part-time toll collectors. The term of this agreement was October 27, 2007 through December 31, 2013.
- Local 196 IFPTE represents Parkway toll collectors and Parkway maintenance employees. The term of this agreement was July 1, 2007 through June 30, 2011.
- Local 196, Chapter 12 IFPTE represents Parkway Craftspersons. The term of this agreement was January 1, 2008 through December 31, 2011.
- Local 196 IFPTE Senior Citizen Toll Collectors represents Parkway senior citizen toll collectors. The term of this agreement was July 1, 2007 through December 31, 2013.
- Local 196 IFPTE Part-Time Toll Collectors represents Parkway part-time toll collectors. The term of this agreement was July 1, 2011 through December 31, 2013.
- Local 200 IFPTE represents Turnpike Toll and Turnpike Maintenance supervisory employees as well as administrative supervisory employees. The term of this agreement was September 24, 2011 through September 23, 2015.
- Local 3914, American Federation of State, County and Municipal Employees (“AFSCME”) represents low to mid-level managers and the attorneys in the Law Department of the Authority. The term of this agreement is July 1, 2011 through June 30, 2017.

### **Pension and OPEB Obligations**

Authority employees belong to the Public Employees’ Retirement System (“PERS”), an actuarially funded pension system operated by the State of New Jersey. Each employee contributes to PERS based on a percentage of the employee’s salary. Employees are enrolled in PERS upon commencement of employment with the Authority. The Authority makes an annual contribution to PERS in an amount determined by the New Jersey Division of Pensions and Benefits. In 2015, the amount billed to local employers was 100% of the Actuarially Determined Contribution (ADC) as determined by the New Jersey Division of Pensions and Benefits actuaries. P.L. 2011, c.78, effective June 28, 2011, increased the active member contribution rates from 5.5% of annual compensation to 6.5% plus an additional 1% phased in over seven years. The payment of automatic cost-of-living adjustments (the “COLA”) additional increases to current and future retirees and beneficiaries was suspended. COLA increases may be reactivated at a future date as permitted by this law. Please see Note 11 in the financial statements of the Authority included as Appendix A-2 to this Official Statement for additional information regarding pension benefits. Set forth below are the contractually required contributions made by the employees of the Authority and the Authority itself during the fiscal years ending December 31, 2012 through and including December 31, 2016:

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u> <u>(unaudited)</u>
Employee Contributions	\$ 8,887,231	\$ 9,031,855	\$ 9,083,409	\$ 9,089,000	\$ 9,271,000
Employer Contributions	<u>18,395,087</u>	<u>15,842,284</u>	<u>14,953,637</u>	<u>16,660,558</u>	<u>16,911,948</u>
Total Contributions	<u>\$ 27,282,318</u>	<u>\$ 24,874,139</u>	<u>\$ 24,037,046</u>	<u>\$ 25,749,558</u>	<u>\$ 26,182,948</u>

In June 2013, GASB issued Statement No. 68, *Financial Reporting for Pension Plan – an amendment of GASB Statement No. 27*. GASB Statement No. 68 changes how governments calculate and report the costs and obligations associated with pensions and improve the decision-usefulness of reported pension information and increase the transparency, consistency, and comparability of pension information. GASB Statement No. 68 requires that the proportionate share of the PERS net pension liability be reflected in the reported amounts on the Authority’s statement of net position, as well as the related deferred inflows and outflows from pension activities. In 2015, the Authority implemented GASB Statement No. 68. As a result of the implementation, the Authority restated its beginning net position at January 1, 2014 by reducing unrestricted net position by \$397,309,000. In addition, its statement of revenues, expenses, and changes in net position for the year ended December 31, 2014 was also restated. See “APPENDIX A-2 – FINANCIAL STATEMENTS OF THE AUTHORITY FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014 WITH INDEPENDENT AUDITORS’ REPORT THEREON - Notes to Financial Statement – Note 2(t) and Note 11” for additional information.

As of the date of this Official Statement, the Authority has not received the necessary information from PERS to report its proportionate share of the PERS net pension liability, as well as the related deferred inflows and outflows of resources and expenses, as of and for the year ended December 31, 2016 in accordance with GASB Statement No. 68. The audit of the financial statements of the Authority as of and for the year ended December 31, 2016 cannot be completed until after such information is received. The unaudited financial information of the Authority as of and for the year ended December 31, 2016 included in this Official Statement does not reflect all the necessary adjustments that are required by GASB Statement No. 68 in order for the Authority’s pension information to be presented in accordance with generally accepted accounting principles in the United States.

The Authority provides medical, prescription drug, vision, dental and Medicare Part B reimbursement to retirees and their covered dependents, in accordance with the terms of the applicable collective bargaining agreements or Authority personnel policies for non-bargaining unit members. The Authority maintains a single-employer, self-funded health plan administered by third party claims administrators. All active employees who retire from the Authority and meet the eligibility criteria will receive these benefits. The plan does not issue a stand-alone report. As required by P.L. 2011, c.78 mandated by the State, retirees with less than twenty years of service as of June 28, 2011 will contribute towards health benefits in retirement.

The Authority currently funds for the cost to provide postemployment benefits on a pay-as-you-go basis. The Authority establishes and has the power to amend benefits and contribution obligations, subject to collective bargaining agreements to the extent they do not conflict with P.L. 2011, c.78 mandated by the State.

As required by the accounting standards of GASB Statement No. 45, “*Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pension*,” the Authority must report cost associated with “other postemployment benefits” (OPEB). OPEB costs are actuarially calculated based on benefits that current and retired employees have accrued as a result of years of service. The statement sets the method for determining the Authority’s postemployment benefits accrual, the Annual Required Contribution (ARC), to include both the value of benefits earned during the year (Normal Cost) and an amortizing of the unfunded actuarial accrued liability over a period not to exceed thirty years. The amortization costs for the initial unfunded actuarial accrued liability is a level percentage of payroll for a period of 30 years, with an assumption that payroll increases by 3% per year.

The following table shows the components of the Authority's annual OPEB cost assuming no prefunding of obligations at December 31, 2016 and 2015:

	<b>Year Ended December 31 2016 (unaudited)</b>	<b>Year Ended December 31 2015</b>
	<b>(in thousands)</b>	
Annual required contribution (ARC)	\$ 100,099	\$ 100,099
Interest on net OPEB obligation	12,796	12,796
Adjustment to annual required contribution	(12,713)	(12,713)
Total annual OPEB cost (AOC)	100,182	100,182
Contributions made	43,501	44,224
Increase in net OPEB obligation	56,681	55,958
Net OPEB obligation, beginning of year	375,864	319,906
Net OPEB obligation, end of year	<u>\$ 432,545</u>	<u>\$ 375,864</u>

At January 1, 2015, the actuarial accrued liability (AAL) for postemployment benefits earned through the valuation date was approximately \$1.4 billion, based on certain actuarial methods and assumptions. Since this liability has not been pre-funded as of the valuation date, the unfunded actuarial accrued liability (UAAL) as of January 1, 2015 was approximately \$1.4 billion. A new valuation report setting forth the AAL for postemployment benefits earned through a valuation date of January 1, 2017 will be completed later this year. Please see Note 12 in the financial statements of the Authority included as Appendix A-2 to this Official Statement for additional information regarding the Authority's postemployment benefits.

### **Public Safety**

Patrol services for the Authority are provided by Troop D of the New Jersey State Police. The members of Troop D are employees of the State. The Authority makes payments to the State for the patrol services they provide. The amount paid to the State for those services in 2016 was \$63,302,000.

### **Budget Procedures**

The Authority's annual budget provides the basis for expenditures during the year. The Authority operates on a calendar-year basis. Not fewer than 40 days before the end of the year, the Authority must submit a preliminary budget of operating expenses and reserves to the Trustee as required by the Resolution. The budget is subject to the Trustee's examination, and the Authority is required to comply with all reasonable requests from the Trustee for classifications and clarifications. The Resolution also specifies that each annual budget must include funding for operating expenses and reserves and provisions for deposits to the Maintenance Reserve Fund and the Special Project Reserve Fund. The preliminary budget and the annual budget may provide additional information, as the Authority may determine, and each shall contain a certificate of the Consulting Engineer approving the preliminary budget and the annual budget, as the case may be.

The annual budget must be adopted by the Commissioners of the Authority by January 15<sup>th</sup> of each fiscal year and made a part of the Authority's minutes. In the event that the Authority does not adopt an annual budget by January 15<sup>th</sup> of the fiscal year or the Governor vetoes the adopted budget, the preceding year's budget remains in effect until such adoption and approval. The minutes of all meetings

are subject to a 10-day review and veto period by the Governor of the State of New Jersey prior to final approval. The adoption and approval of the annual budget does not in itself authorize any specific expenditure. Specific expenditures must be submitted, adopted and approved under the Authority's adopted procedure and must be consistent with the statutory, contractual and other commitments of the Authority, including agreements with the holders of its obligations, including bonds. Adoption and approval of the annual budget does not limit or preclude the Authority from submitting an amended budget to the Commissioners for adoption. Copies of the annual budget and all amendments must be filed promptly with the Trustee. If at any time the annual budget and amendments thereto exceed the preliminary budget by 10% or more, the Authority must file a detailed report with the Trustee, stating specifically the reason for the increase, and hold a public hearing thereon.

Although the Authority is restricted from expending funds in excess of the annual budget allocation for operating expenses (other than through amendment to the annual budget), the Authority may allocate additional funds for operating expenses if such funds are obtained from sources other than Pledged Revenues.

### **Electronic Toll Collection**

An electronic toll collection system (the "ETC System") became operational on the Parkway in December 1999 and on the Turnpike in September 2000. The ETC System allows users to pay tolls at toll collection facilities without stopping to exchange tickets or money. The ETC System uses various electronic sensors and other equipment to automatically detect, profile and classify a vehicle. With the use of on board vehicle transponders linked to customer accounts and readers in toll lanes, this system allows the Authority to seamlessly record and charge toll transactions, making errors less likely while allowing for real-time traffic management. The Authority is one of 38 toll road agencies in 16 States from Maine to North Carolina to Illinois who are members of the E-ZPass Group. E-ZPass Group members use similar technology and standardized protocols allowing them to accept other members' customers under the E-ZPass brand of Electronic Toll Collection. Through December 31, 2016, approximately 82.6% of the toll transactions on the Turnpike and approximately 79.6% of the toll transactions on the Parkway were processed through the ETC System.

The Authority and the South Jersey Transportation Authority ("SJTA") entered into a Professional Services Agreement (the "Prior E-ZPass Agreement") with Xerox State & Local Solutions, Inc. ("Xerox") (formerly known as ACS State & Local Solutions ("ACS")) pursuant to which Xerox agreed to operate and maintain the ETC System for the toll roadways and bridges operated by the Authority and SJTA, including customer service, violations processing and financial back-office services (New Jersey E-ZPass). The Prior E-ZPass Agreement, effective August 2, 2002, as amended on May 20, 2004, and on January 1, 2011 and supplemented on May 27, 2011 to include the Delaware River Port Authority (the "DRPA") and the Delaware River and Bay Authority (the "DRBA") and to extend the terms of the Prior E-ZPass Agreement, provided that it would be in effect until July 31, 2014, unless it was terminated earlier in accordance with its terms. On February 26, 2013, the Board of Commissioners of the Authority approved an extension of the Prior E-ZPass Agreement until July 31, 2016. Amendment No. 3, approved by the Authority's Commissioners on November 19, 2013, allowed for the Delaware River Joint Toll Bridge Commission (the "DRJTBC") to become a part of the NJ E-ZPass Group (formerly known as ETC Group) and utilize the services of New Jersey E-ZPass. DRJTBC fully joined the NJ CSC on May 19, 2014. On July 28, 2015, the Authority Commissioners approved a supplement to the Prior E-ZPass Agreement to extend the contract until January 31, 2017. In January 2015, the Authority issued a Request for Proposal (RFP) for New Jersey E-ZPass customer service, violations processing and financial back office services to replace the expiring Prior E-ZPass Agreement. At its September 29, 2015 meeting, the Board of Commissioners of the Authority awarded the new contract (the "Current E-ZPass Agreement") to Xerox based upon its proposal submitted in response to the RFP. The First Addendum to the Current E-ZPass Agreement, approved by the Authority's Commissioners on

September 27, 2016, clarified the invoicing process under the Current E-ZPass Agreement. The Second Addendum to the Current E-ZPass Agreement, approved by the Authority's Board of Commissioners on January 31, 2017 extended the cut-over date of implementing certain upgrades to the customer service center from February 1, 2017 to July 17, 2017. This Second Addendum also provided for Xerox to provide payment and credit card processing. On January 3, 2017, Xerox split into two separate companies. The contract to operate the New Jersey E-ZPass was assigned to Xerox State & Local Solutions D/B/A Conduent ("Conduent"). The Current E-ZPass Agreement with Conduent has an operating period of eight (8) years beginning February 1, 2017 with an option to extend the contract and the operating period for one, 2-year term at the Authority's discretion. The Burlington County Bridge Commission ("BCBC") became a full member of the NJ E-ZPass Group by Memorandum of Agreement on December 6, 2016.

The Authority is responsible for paying approximately 77% of all amounts due and owing to Conduent under the Current E-ZPass Agreement. The remaining 23% is shared by the SJTA, the DRPA, the DRBA, the DRJTBC and the BCBC. Payments required to be made by the Authority under the Current E-ZPass Agreement constitute Operating Expenses of the Turnpike System under the Resolution and are payable from Pledged Revenues prior to the deposit of Pledged Revenues into the Debt Service Fund to pay Debt Service on the Bonds.

### **Manual Toll Collection**

The Toll Collection Department of the Authority manages the collection of cash tolls on both the Turnpike and the Parkway. Administrative personnel in the Toll Collection Department include six directors or managers, one supervisor, two support staff, and two clerks. The administrative staff is responsible for developing procedures for collecting toll revenues and ensuring that the toll plazas are safe for motorists and for the Authority's field staff.

#### *The Turnpike*

The Turnpike has 28 interchanges connecting the roadway with major traffic arteries, cities and transportation centers. Toll collection at the interchanges is managed and operated by 194 full-time and 420 part-time toll collectors, 93 supervisors, eight interchange managers, two assistant division managers, one division manager and four clerks. The Authority's Integrated Technology Services Department is responsible for maintaining the Turnpike's manual toll equipment.

Except for two cash toll barriers (at Interchanges 6A and 17), toll collection on the Turnpike is done through a closed system: Drivers take tickets when they enter the roadway and return the tickets with their payment when they exit. (The State Legislature has directed that tolls not be collected on the I-95 extension; thus, that section of the roadway is not part of the closed toll system.) All tickets are processed through a computerized toll system that imprints them with interchange number, date, time of entry, lane number, class of vehicle, and toll collector identification information. As drivers enter the Turnpike, they drive over treadles that record the number of axles on their vehicles. As they exit, the time is imprinted on their tickets, and they drive over treadles once again and pass through an Automatic Vehicle Classification system. The axle count, tickets, revenues and Automatic Vehicle Classifications are reconciled daily by the Finance and Budget Department of the Authority.

#### *The Parkway*

Cash toll collection along the Parkway's 48 barriers and ramps is managed and operated by 135 full-time and 80 part-time toll collectors, 64 plaza and assistant plaza supervisors, five area managers and two clerks. The Authority's Integrated Technology Services Department is responsible for maintaining the Parkway's manual toll equipment and automatic coin machines.

The collection of cash tolls on the Parkway is done through an “open” system: drivers pay a set toll at barriers and ramps along the roadway. The tolls vary by vehicle class determined by number of axles. Automatic coin machines are also used to collect cash tolls at Parkway barriers and ramps.

### **Control Procedures**

The cash and tickets are collected from the interchanges, plazas and ramps by armored car. Tickets are delivered to the Turnpike Administration Building and the cash is counted and deposited to a designated toll revenue bank account.

The Authority’s Finance Department audits manual, automatic and E-ZPass transactions to ensure the proper credit and handling of funds. Toll collectors, the ETC System and bank tellers and interchanges are monitored for variances in vehicle classification, axle count, transaction count and expected revenue.

Collector variances over a certain threshold are reported to senior Toll Collection management and/or the Internal Audit Department for possible re-training, counseling, discipline or legal action. Additionally, bank errors or shortages are reported to the bank to ensure proper credit of funds. Either periodically, or upon request from the Finance Department, the Internal Audit Department makes a site visit to the bank to monitor and review banking control procedures.

### **Existing Toll Rates and Schedule**

The toll increases which became effective on December 1, 2008 and on January 1, 2012 on both the Turnpike and the Parkway, are anticipated to provide the Authority with sufficient Net Revenues to satisfy all of the requirements of the Resolution relating to the issuance of all Bonds expected to be hereafter issued by the Authority to fund the Costs of Construction of the various Projects comprising the Capital Improvement Program. See “SECURITY FOR THE BONDS – Toll Covenant” and “SECURITY FOR THE BONDS – Additional Indebtedness” herein and APPENDIX B – “2017 DRAW DOWN LETTER, 2015 DRAW DOWN LETTER AND REPORT OF TRAFFIC ENGINEER” and APPENDIX C – “REPORT OF CONSULTING ENGINEER” hereto.

#### *The Turnpike*

The Authority has increased tolls on the Turnpike seven times since its opening in 1951. The effective dates of those increases were March 23, 1975, April 1, 1980, March 17, 1991, September 30, 2000, January 1, 2003, December 1, 2008 and January 1, 2012. In addition, the Turnpike eliminated various E-ZPass discounts on January 1, 2006 and July 1, 2011. With the exception of Interchanges 6A and 17, tolls are collected by use of a closed-ticket system, with payment made at the point of exit. The toll rate is determined by distance traveled, class of vehicle, time of day, method of payment, and other factors.

Since January 1, 2012, passenger vehicles pay tolls averaging approximately 11.4 cents per mile for a full-length, peak period trip on the mainline Turnpike. The Authority offers discounted toll rates on the Turnpike based on time of travel, method of payment, type of vehicle, frequency of use, and other factors.

Table 3 depicts the current E-ZPass tolls for selected peak-period trips by class of vehicles for the Turnpike.

**Table 3 – Summary of Current Toll Rates on the Turnpike — E-ZPass, Peak Period**

Trip	Passenger Cars	2-Axle Dual-Tire	3-Axle	4-Axle	5-Axle	6-Axle	2-Axle Buses
<b>Delaware Memorial Bridge (Exit 1)</b>							
<b>NORTH TO:</b>							
George Washington Bridge (Exit 18E/18W)	\$ 13.85	\$ 26.00	\$ 32.45	\$ 39.00	\$ 45.45	\$ 51.95	\$ 20.05
Lincoln Tunnel (Exit 16E/16W)	12.55	23.50	32.20	37.25	44.75	51.95	18.00
Holland Tunnel (Exit 14C)	13.30	24.70	32.45	38.10	45.45	51.95	18.95
<b>Lincoln Tunnel (Exit 16E/16W)</b>							
<b>SOUTH TO:</b>							
Newark Airport (Exit 14)	2.15	4.30	5.30	6.45	7.75	9.05	3.20
Parkway (Exit 11)	5.15	9.05	12.80	15.00	17.65	20.65	6.95
New Brunswick (Exit 9)	6.50	12.00	16.00	18.75	22.80	26.25	9.20
Pennsylvania Turnpike (Exit 6)	10.25	18.75	25.15	29.45	35.55	40.95	14.45
Philadelphia-Camden (Exit 4)	9.70	18.30	24.95	29.20	34.90	40.45	14.00
<b>Holland Tunnel (Exit 14C)</b>							
<b>SOUTH TO:</b>							
Newark Airport (Exit 14)	2.45	5.30	6.45	7.50	9.05	10.50	4.05
Parkway (Exit 11)	5.45	9.95	14.00	16.00	19.20	21.95	7.75
New Brunswick (Exit 9)	6.65	12.95	17.20	19.80	23.65	27.55	9.95
Pennsylvania Turnpike (Exit 6)	10.65	19.80	26.70	30.50	36.70	42.40	15.30
Philadelphia-Camden (Exit 4)	10.25	19.35	26.25	30.20	36.40	42.25	15.00

### *The Parkway*

Tolls on the Parkway have increased only three times since its opening in 1950. The first increase went into effect April 15, 1989, the second increase took effect on December 1, 2008, and the third on January 1, 2012. In addition, the Parkway eliminated its E-ZPass discount on January 1, 2002.

After the most recent increase, passenger vehicles now pay tolls of approximately 4.8 cents per mile for a full-length, round trip on the Parkway.

Table 4 shows the current Parkway tolls by class of vehicle.

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**Table 4 – Summary of Current Toll Rates on the Parkway**

		Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Classes B2, B3	Classes B2, B3
<b>Toll Plaza</b>	<b>Milepost</b>	<b>Passenger cars, Motorcycles, Taxis</b>	<b>2-Axle Dual Tire Vehicle</b>	<b>3-Axle Vehicle or Vehicle/Trailer Combination</b>	<b>4-Axle Vehicle or Vehicle/Trailer Combination</b>	<b>5-Axle Vehicle or Vehicle/Trailer Combination</b>	<b>6-Axle Vehicle or Vehicle/Trailer Combination</b>	<b>2-Axle Bus, 3-Axle Bus, Cash</b>	<b>2-Axle Bus, 3-Axle Bus, E-ZPass</b>
<b>MAIN LINE BARRIER PLAZAS</b>									
<b>Pascack Valley *</b>	166.1	\$ 1.50	\$ 3.00	\$ 4.50	\$ 6.00	\$ 7.50	\$ 9.00	\$ 8.60	\$ 4.30
<b>Bergen NB *</b>	160.5	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>Essex SB *</b>	150.7	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>Union NB *</b>	142.7	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>Raritan SB *</b>	125.4	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>Asbury Park NB</b>	104.0	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>Toms River</b>	84.7	.75	1.50	2.25	3.00	3.75	4.50	4.30	2.15
<b>Barnegat SB</b>	68.9	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>New Gretna NB</b>	53.5	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>Great Egg SB</b>	28.8	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>Cape May NB</b>	19.4	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>RAMP PLAZAS</b>									
<b>Paramus *</b>	164.6	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Saddle Brook NB *</b>	160.3	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>Clifton *</b>	156.1	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Passaic *</b>	154.5	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Watchung *</b>	152.6	.75	1.50	2.25	3.00	3.75	4.50	4.30	2.15
<b>Bloomfield *</b>	148.9	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>East Orange *</b>	147.1	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15

**Table 4– Summary of Current Toll Rates on the Parkway  
(cont'd.)**

		Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Classes B2, B3	Classes B2, B3
<b>Toll Plaza</b>	<b>Milepost</b>	<b>Passenger cars, Motorcycles, Taxis</b>	<b>2-Axle Dual Tire Vehicle</b>	<b>3-Axle Vehicle or Vehicle/Trailer Combination</b>	<b>4-Axle Vehicle or Vehicle/Trailer Combination</b>	<b>5-Axle Vehicle or Vehicle/Trailer Combination</b>	<b>6-Axle Vehicle or Vehicle/Trailer Combination</b>	<b>2-Axle Bus, 3-Axle Bus, Cash</b>	<b>2-Axle Bus, 3-Axle Bus, E-ZPass</b>
<b>RAMP PLAZAS</b>									
<b>Irvington *</b>	146.1	\$ .50	\$ 1.05	\$ 1.55	\$ 2.10	\$ 2.65	\$ 3.25	\$ 4.30	\$ 2.15
<b>Union Ramp NB *</b>	142.8	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>Matawan *</b>	117.1	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Keyport *</b>	118.6	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Holmdel *</b>	113.6	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Red Bank *</b>	110.3	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Eatontown NB *</b>	106.5	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>Belmar/Wall</b>	98.0	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Brick</b>	93.0	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Lakewood</b>	90.1	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Lakehurst</b>	89.2	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Berkeley</b>	77.9	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Lacey</b>	75.3	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15
<b>Waretown</b>	70.4	.75	1.50	2.25	3.00	3.75	4.50	4.30	2.15
<b>Somers Point SB</b>	30.2	1.50	3.00	4.50	6.00	7.50	9.00	8.60	4.30
<b>Wildwood</b>	3.8	.50	1.05	1.55	2.10	2.65	3.25	4.30	2.15

\* Heavy trucks registered 7,000 lbs. or more (6 tires or 3 or more axles) prohibited north of Interchange 105.

\* E-ZPass tolls are discounted by approximately 5% over cash tolls for vehicles in Classes 2 through 6.

## **Future Legislation**

A bill has been introduced in the New Jersey State Legislature in the current legislative session ending in December 2017, which, if enacted in its present form, would require the Authority to provide a 10% discount from its regular toll charges to New Jersey E-ZPass customers for two year period in the event of an increase in the State's motor fuels tax. In several of its previous legislative sessions, the State Legislature has considered bills which would require, among other things, that the Authority alter the way it displays toll information at each collection point on the Turnpike and Parkway and that the Authority make business decisions that could impact its revenues and/or expenses. The Authority is unable to predict whether the currently pending bill will be enacted into law, or whether any such previously introduced bills, or substantially similar bills, will be introduced in the current or any future session of the State Legislature or, if introduced, whether any such bills will be enacted into law. If the currently pending bill or any such future bills are enacted into law, the Authority is unable to predict whether or not such bills will have a material impact on the Authority's operations.

## **Financial Management Principles and Guidelines**

In December 2012, the Authority adopted its "Financial Management Principles and Guidelines" (the "Guidelines"). Among the policies established, the Authority will manage its toll rates, expense budget and debt issuance program to achieve minimum senior debt service coverage of 1.4x and a total requirement coverage of 1.2x. The Guidelines also stated the Authority will manage its cash flow and total expenditure levels such that it maintains an average unrestricted cash balance in the General Reserve Fund equal to at least \$75,000,000. In order to maintain current policies that are in the best interest of its stakeholders, the Authority conducted a review of the Guidelines in November 2015. As a result of that review, at its November 2015 meeting, the Authority's Board of Commissioners approved a change to the Guidelines which provided that the Authority's minimum average unrestricted cash balance in the General Reserve Fund be increased to \$100,000,000. Thereafter, at the direction of the Board of Commissioners, the Authority's staff and its financial advisor conducted a review of twenty six (26) tolling agencies, which are members of the E-ZPass Interagency Group (IAG), to determine whether other tolling agencies have General Reserve Funds and if they do, whether they have policies requiring a minimum balance for the fund. Based on this review, in January 2017, the Authority's Board of Commissioners approved a change to the Guidelines with respect to the minimum average unrestricted cash balance in the General Reserve Fund which provides that the Authority will manage its cash flow and total expenditures levels such that it will maintain average unrestricted cash balances in the General Reserve Fund equal to at least; (i) \$125,000,000 at December 31, 2017, (ii) \$150,000,000 at December 31, 2018, (iii) \$175,000,000 at December 31, 2019, and (iv) beginning in 2020, by December 31<sup>st</sup> of each year, an amount equal to 10% of that years' budgeted total annual revenue.

The Guidelines were implemented at the option of the Authority and are not a legal covenant required to be maintained pursuant to the Resolution for the benefit of the Bondholders. Such Guidelines can be changed or eliminated at any time at the option of the Authority. See, however, "SUMMARY OF GENERAL BOND RESOLUTION AND CERTAIN DEFINITIONS – Toll Covenants." in Appendix D to this Official Statement. In addition, the Authority adopted an Interest Rate Swap Management Plan in March 2013 which was also amended in November 2015, an Investment Policy in September 2013 and a Debt Management Policy in January 2014.

## **Management's Discussion of Results of Operations**

The following table summarizes the Authority's Revenues, Operating Expenses, Debt Service and Net Revenues for its fiscal years 2012 through 2016. The amounts set forth in this table are presented in conformity with the requirements of the Resolution and not on the basis of generally accepted accounting principles. Certain selected unaudited financial information of the Authority for the year ended December 31, 2016 is included in Appendix A-1 to this Official Statement. The audited financial statements of the Authority for the year ended December 31, 2015, prepared in conformity with generally accepted accounting principles with reconciling schedules to the Resolution, are included in Appendix A-2 to this Official Statement. This table should be read in conjunction with such selected unaudited financial information and audited financial statements.

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**5-Year Summary Schedule of Revenues, Operating Expenses, Debt Service and Net Revenues (\$000s)\***

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	2016 (unaudited)
<b>TURNPIKE SYSTEM REVENUES</b>					
Toll revenue	\$ 1,393,658	\$ 1,413,763	\$ 1,445,748	\$ 1,523,133	\$ 1,570,662
E-ZPass Fees	47,315	51,372	52,773	56,262	62,579
Concession revenue	34,990	34,961	36,842	38,993	38,192
Earnings on investments	11,818	10,095	11,191	11,266	12,362
Build America Bonds Rebate	81,665	75,173	75,745	75,908	76,071
Miscellaneous revenue	9,863	12,867	13,853	13,104	23,870 <sup>(1)</sup>
Arts Center	3,118	3,178	3,530	3,632	4,079
Total Revenues	1,582,427	1,601,409	1,639,682	1,722,298	1,787,815
<b>Operating Expenses</b>					
Maintenance of roadway, buildings and equipment	156,551	177,745	177,735	201,129	185,361
Toll Collection	185,445	162,591	157,869	157,558	160,485
State Police and Traffic Control	70,536	70,317	74,448	78,290	79,799
Technology	19,322	23,238	26,078	28,629	28,755
General Administrative Costs	40,381	39,144	36,642	37,847	38,825
Total operating expenses	472,235	473,035	472,772	503,453	493,225
Net Revenue Available for Debt Service	1,110,192	1,128,374	1,166,910	1,218,845	1,294,590
<b>Debt Service</b>					
Interest Expense	464,166	452,891	444,691	519,311	575,338
Principal Payments	132,975	131,881	164,205	142,115	197,740
Total Debt Service	597,141	584,772	608,896	661,426	773,078
Net Revenue After Operating Expenses and Debt Service	513,051	543,602	558,014	557,419	521,512
<b>Interfund Transfers:</b>					
To Charges Fund	3,629	1,646	1,150	535	94
To Maintenance Reserve Fund	70,497	72,635	74,814	87,058	89,370
To Special Project Reserve Fund	35,910	27,783	28,800	50,301	38,918
Excess Net Revenues	\$ 403,015	\$ 441,538	\$ 453,250	\$ 419,525	\$ 393,130
Net Revenue/Total Debt Service	1.86	1.93	1.93	1.84	1.67
Net Revenue/Total Debt Service and Reserves	1.57	1.64	1.65	1.52	1.44

\* Totals may not add due to rounding.

<sup>(1)</sup> Includes \$6,578 of reimbursements from the Federal Government.

## **Management's Discussion of Results for the Fiscal Years Ended December 31, 2016 through 2012**

### **Fiscal Year 2016 (Unaudited)**

Revenues available for operating expenses, debt service and reserves were \$1,787,815,000 in 2016, which was \$65,517,000 more than the revenues of \$1,722,298,000 in 2015. Toll revenue is the principal source of revenue and in 2016 tolls constituted approximately 87.9% of total revenues. Revenues from tolls were \$1,570,662,000 which was \$47,528,000, or 3.1%, more than the \$1,523,133,000 earned in 2015. The increase in toll revenue was due primarily to relatively mild winter and spring weather and continued comparatively low gas prices. Toll revenue increased in spite of the impact of Superstorm Jonas which occurred on January 23-24, 2016 and was declared to be a State of Emergency. It is estimated that without the impact of Superstorm Jonas, 2016 toll revenue would have increased by 3.3%. Both the Turnpike and Parkway experienced traffic and toll revenue gains for the year ended December 31, 2016 compared to the same period in 2015. In addition to favorable weather and comparatively low gas prices, traffic and toll revenue have benefited from improving economic conditions, and an extra leap year day in 2016.

In 2016, E-ZPass Fees accounted for 3.5% of the Authority's 2016 revenue. E-ZPass Fees increased \$6,317,000, or 6.6%, to \$62,579,000 from \$56,262,000 in 2015. The increase in revenues is due to enhancements in enforcement efforts which increased administrative fee revenue collected from toll violators and an increase in membership fees and statement fees as the number of customers continues to grow with 139,000 new accounts added in 2016. E-ZPass fees also increased due to higher lost/damaged tag fees from the tag swap program. E-ZPass transactions in 2016 were 82.6% of all transactions on the Turnpike and 79.6% of all toll transactions on the Parkway increasing from 81.7% and 78.7%, respectively, in 2014.

Concession revenues were \$38,192,000 and constituted about 2.1% of 2016 revenues. Concession revenues decreased \$801,000 or 2.1% from the \$38,993,000 recorded in 2015. The decrease is due to the lower gross profit margin on diesel fuel sales on the Turnpike. On the Turnpike, fuel sales increased 5.7%, but revenue received was lower due to a decrease in receipts from the gross profit margin on diesel fuel sales as compared to 2015. The Authority receives 50% of the gross profit margin on all diesel fuel sold. Turnpike food and convenience store sales increased 5.0% and 11.7%, respectively, compared to last year. The increase in food and fuel sales was in part due to the reopening of the Grover Cleveland Service Area on November 23, 2015 after a three-year closure due to the effects of Superstorm Sandy. On the Parkway, fuel sales increased 2.0% and convenience store sales increased 3.6%. Parkway food sales only increased 0.2%, due to the closure of the Vauxhall Service Area food service facility from October 2, 2015 to May 3, 2016.

Investment income in 2016 was \$12,362,000 or 0.7% of the Authority's total revenue for 2016. Investment income was approximately \$1,096,000, or 9.7%, higher than 2015 due to higher invested balances in the Debt Reserve Fund from the Series 2015 E Bond issue and higher yields on investments since September 2016 due to short term general interest rate increases.

The Authority issued the Series 2009 F Bonds in April 2009 and the Series 2010 A Bonds in December 2010. Both Series were issued under the Build America Bond program authorized by the American Reinvestment and Recovery Act of 2009. Prior to March 1, 2013, the Federal Government reimbursed the Authority for 35% of the interest payable on both of these issues. See "CERTAIN RISK FACTORS – Federal Subsidy on Build America Bonds." The rebate constitutes pledged revenue under the Bond Resolution and totaled \$76,071,000 in 2016 which increased \$163,000 or 0.2% from \$75,908,000 in 2015. This reimbursement constituted about 4.3% of the Authority's 2016 revenue.

Miscellaneous revenue collected for the year was \$23,870,000, or about 1.3% of the Authority's total revenue. The 2016 amount was approximately \$10,766,000, or 82.2% higher than over the same period in 2015. The increase in 2016 is due to the \$6,500,000 FEMA Recovery for Superstorm Jonas, the receipt of \$3,250,000 in non-recurring insurance settlements and \$1,000,000 from a non-recurring FINRA arbitration settlement. Arts Center rent was \$4,079,000 or 0.2% of total Authority revenues in 2016 and was \$447,000 higher than 2015 due to higher variable payments from increased ticket sales and a contractual rent increase.

Operating expenses in 2016 were \$493,225,000, which was \$10,228,000 lower than 2015. Annual operating expenses were lower in 2015 primarily due to lower than anticipated snow removal costs incurred during the winter months of 2016 and lower utility and fuel costs. In 2016, the Authority spent \$21,423,000 less on snow removal costs as compared to 2015. Utility and fuel costs were lower than 2015 due to continued low natural gas and gasoline prices and above average temperatures which reduced heating usage and costs.

Debt service in 2016 was \$773,078,000 and was approximately \$111,652,000 higher than in 2015. Debt service increased primarily due to higher principal and interest payments on the Series 2015 E Bonds and Series 2014 A Bonds. The Series 2015 E Bonds were issued in September 2015 and 2016 included a full year of interest expense for those Bonds. Interest on the Series 2014 A Bonds was paid from bond proceeds (capitalized interest) in 2015 and became payable from revenues after May 2016.

After providing for required funding to the Charges Fund, the Maintenance Reserve Fund and the Special Project Reserve Fund, the Authority deposited \$393,130,000 into its General Reserve Fund in 2016. The Authority's expenses of \$334,119,000 consist primarily of \$264,000,000 for the State Transportation Capital Plan, \$22,000,000 for State Transportation Trust Fund payments, \$8,001,000 for feeder road payments to the State Department of Transportation and \$10,750,000 on extraordinary snow costs.

## **Fiscal Year 2015**

Revenues available for operating expenses, debt service and reserves totaled \$1,722,298,000 in 2015, which was \$82,616,000, or 5.0 %, more than the revenues of \$1,639,682,000 in 2014. Toll revenue is the principal source of revenue and in 2015 tolls constituted approximately 88.4% of total revenues. Revenues from tolls were \$1,523,133,000 which was \$77,385,000 or 5.4% more than the \$1,445,748,000 earned in 2014. The increase in toll revenue was due in part to the favorable weather conditions since March 2015, which produced two major storms, both of which were declared to be States of Emergency. In addition to favorable weather, traffic has benefited from improving economic conditions, comparatively low gas prices and the increase traffic from the completion of the Turnpike Interchange 6 to 9 widening. Traffic on the Turnpike increased by approximately 6.2% and revenue increased by 6.6% while Parkway toll transactions increased by about 2.4% and revenue increased by 2.2%.

In 2015, E-ZPass Fees accounted for 3.3% of the Authority's 2015 revenue. E-ZPass Fees increased \$3,489,000 or 6.6%, to \$56,262,000 from \$52,773,000 in 2014. The increase in revenues is due to enhancements in enforcement efforts which increased administrative fee revenue collected from toll violators and an increase in membership fees as 126,000 new customer accounts were added in 2015. E-ZPass transactions in 2015 were 81.7% of all transactions on the Turnpike and 78.7% of all toll transactions on the Parkway increasing from 81.2% and 78.1%, respectively, in 2014.

Concession revenues were \$38,993,000 and constituted about 2.3% of 2015 revenues. Concession revenues increased \$2,151,000 or 5.8% from the \$36,842,000 recorded in 2014. The increase

is due to the higher gross profit margin on diesel fuel sales on the Turnpike and the opening of four convenience stores on the Parkway.

Investment income in 2015 was \$11,266,000 or 0.7% of the Authority's total income for 2015. Investment income increased slightly, \$76,000 or about 0.7% from 2014 as short term interest rates remain at or near historical lows.

The Authority issued the Series 2009 F Bonds in April 2009 and the Series 2010 A Bonds in December 2010. Both Series were issued under the Build America Bond program authorized by the American Reinvestment and Recovery Act of 2009. Prior to March 1, 2013, the Federal Government reimbursed the Authority for 35% of the interest payable on both of these issues. See "CERTAIN RISK FACTORS – Federal Subsidy on Build America Bonds." The rebate constitutes pledged revenue under the Bond Resolution and totaled \$75,908,000 in 2015 which increased \$163,000 or 0.2% from \$75,745,000 in 2014. This reimbursement constituted about 4.4% of the Authority's 2015 revenue.

Miscellaneous revenues were \$13,104,000 or about 0.8% of the Authority's revenue. The 2015 amount was \$749,000 or 5.4% lower than in 2014. The slight decrease is largely due to a decrease in non-recurring FEMA reimbursements for Superstorm Sandy offset by increases in surplus land property sales, advertising revenues and insurance recoveries. Arts Center rent was \$3,632,000 or 0.2% of total Authority revenues and was \$102,000 greater than 2014 due to higher variable payments from increased ticket sales and a contractual rent increase.

Operating Expenses in 2015 were \$503,453,000, which was \$30,681,000 higher than 2014. Annual operating expenses were impacted by higher than anticipated snow removal costs incurred during the severe winter weather in the first three months of 2015 and higher ETC System operating costs. ETC System operating costs have increased due to higher transaction processing and credit card fees, due to toll transactions and revenue increases on both roadways, as well as higher violation collection costs arising from the increased violation toll and administrative fee collections.

Debt service in 2015 was \$661,426,000, which was a \$52,530,000 increase over 2014. Debt service increased primarily due to interest on the Series 2013A Bonds which became payable from revenues in 2015 as compared to payable from bond proceeds (capitalized interest) the prior year.

After providing for required funding to the Charges Fund, the Maintenance Reserve Fund and the Special Project Reserve Fund, the Authority deposited \$419,525,000 into its General Reserve Fund in 2015. The Authority's expenses of \$400,094,000 consist primarily of \$324,000,000 for the State Transportation Capital Plan, \$22,000,000 for State Transportation Trust Fund Payments, \$8,001,000 for feeder road payments to the State Department of Transportation and \$14,030,000 on extraordinary snow costs.

## **Fiscal Year 2014**

Revenues available for operating expenses, debt service and reserves totaled \$1,639,681,302 in 2014, which was \$38,271,782, or 2.4 %, more than the revenues of \$1,601,409,520 in 2013. Toll revenue is the principal source of revenue and in 2014 tolls constituted approximately 88.2% of total revenues. Revenues from tolls were \$1,445,748,249 which was \$31,984,939 or 2.3% more than the \$1,413,763,310 earned in 2013. The increase in toll revenue was due to an improving economy, declining gas prices, and favorable weather conditions from April through December. The strong toll revenue results were achieved despite the major winter storms which occurred in January, February and March 2014. Traffic on the Turnpike increased by approximately 3.5% and revenue increased by 3.1% while Parkway toll transactions increased by about 0.4% and revenue increased by 0.2%.



In 2014, E-ZPass Fees accounted for 3.2% of the Authority's 2014 revenue. E-ZPass Fees increased \$1,400,661 or 2.7%, to \$52,772,669 from \$51,372,008 in 2013. The increase in revenues is due to enhancements in enforcement efforts which increased administrative fee revenue collected from toll violators and an increase in membership fees as 175,000 new customer accounts were added in 2014. E-ZPass transactions in 2014 were 81.2% of all transactions on the Turnpike and 78.1% of all toll transactions on the Parkway increasing from 80.6% and 77.6%, respectively, in 2013.

Concession revenues were \$36,842,363 and constituted about 2.2% of 2014 revenues. Concession revenues increased \$1,881,178 or 5.4% from the \$34,961,185 recorded in 2013. The increase is due to the higher gross profit margin on diesel fuel sales on the Turnpike.

Investment income in 2014 was \$11,190,567 or 0.6% of the Authority's total income for 2014. Investment income increased \$1,540,000 or about 12.1% from 2013, due primarily to an increase in interest income due to higher invested balances, principally in the debt reserve fund.

The Authority issued the Series 2009 F Bonds in April 2009 and the Series 2010 A Bonds in December 2010. Both Series were issued under the Build America Bond program authorized by the American Reinvestment and Recovery Act of 2009. Prior to March 1, 2013, the Federal Government reimbursed the Authority for 35% of the interest payable on both of these issues. See "CERTAIN RISK FACTORS – Federal Subsidy on Build America Bonds." The rebate constitutes pledged revenue under the Bond Resolution and totaled \$75,744,598 in 2014 which increased \$571,657 or 0.8% from \$75,172,932 in 2013. This reimbursement constituted about 4.6% of the Authority's 2014 revenue.

Miscellaneous revenues were \$13,853,053 or about 0.8% of the Authority's revenue. The 2014 amount was \$985,813 or 7.7% higher than in 2013. The increase is largely due to an increase in surplus land sales and the \$2,335,000 FEMA reimbursement for Superstorm Sandy. Arts Center rent was \$3,529,812 or 0.7% of total Authority revenues and was \$351,884 greater than 2013 due to higher variable payments from increased ticket sales and a contractual rent increase.

Operating Expenses in 2014 were \$472,772,204, which was \$262,614 lower than 2013. Annual operating expenses were impacted by decreased general administrative costs. General and administrative expenses decreased by \$372,000 due primarily to savings in insurance (other than property insurance) as well as continued control of discretionary expenses. Toll collection costs decreased due to savings from renegotiated toll collector contracts and the extended electronic toll collection contract with Xerox.

Debt service in 2014 was \$608,896,000, which was a \$24,124,000 increase over 2013. Debt service increased primarily due to increased principal payments on the Series 2003 Bonds.

After providing for required funding to the Charges Fund, the Maintenance Reserve Fund and the Special Project Reserve Fund, the Authority deposited \$453,250,000 into its General Reserve Fund in 2014. The Authority's expenses of \$401,518,000 consist primarily of \$324,000,000 for the State Transportation Capital Plan, \$22,000,000 for State Transportation Trust Fund Payments, \$8,001,000 for feeder road payments to the State Department of Transportation and \$32,294,000 on extraordinary snow costs.

### **Fiscal Year 2013**

Revenues available for operating expenses, debt service and reserves totaled \$1,601,409,520 in 2013, which was \$18,982,184, or 1.2%, more than the revenues of \$1,582,427,336 in 2012. Toll revenue is the principal source of revenue and in 2013 tolls constituted approximately 88.3% of total revenues. Revenues from tolls were \$1,413,763,310, which was \$20,104,825 or 1.4% more than the \$1,393,658,485

earned in 2012. The increase in toll revenue was due to an improving economy, mild weather from August through November and relatively low gas prices. The strong toll revenue results were achieved despite the major winter storms which occurred in February, March and December 2013. Traffic on the Turnpike increased by approximately 0.6% and revenue increased by 1.5% while Parkway toll transactions increased by about 0.8% and revenue increased by 1.3%.

In 2013, *E-ZPass* Fees accounted for 3.2% of the Authority's 2013 revenue. *E-ZPass* Fees increased \$4,057,436 or 8.6%, to \$51,372,008 from \$47,314,572 in 2012. The increase in revenues is due to enhancements in enforcement efforts which increased administrative fee revenue collected from toll violators and an increase in membership fees as 87,500 new customer accounts were added in 2013. *E-ZPass* transactions in 2013 were 80.6% of all transactions on the Turnpike and 77.6% of all toll transactions on the Parkway increasing from 79.2% and 76.0%, respectively, in 2012.

Concession revenues were \$34,961,185 and constituted about 2.2% of 2013 revenues. Concession revenues decreased \$28,782 or 0.1% from the \$34,989,967 recorded in 2012. The slight decrease is due to the closing of the Grover Cleveland Service Area on the Turnpike thereby impacting the fuel and convenience store sales offset by increases in fuel and food sales on the Parkway.

Investment income in 2013 was \$10,094,917 or 0.6% of the Authority's total income for 2013. Investment income declined \$1,723,306 or about 14.6% from 2012, due primarily to an unrealized decrease in the market value of certain Federal Agency investments of approximately \$2,600,000. This mark to market adjustment offset increases in interest income due to a higher invested balance in the Debt Reserve Fund from the Series 2013 A Bonds.

The Authority issued the Series 2009 F Bonds in April 2009 and the Series 2010 A Bonds in December 2010. Both Series were issued under the Build America Bond program authorized by the American Reinvestment and Recovery Act of 2009. Prior to March 1, 2013, the Federal Government reimbursed the Authority for 35% of the interest payable on both of these issues. See "CERTAIN RISK FACTORS – Federal Subsidy on Build America Bonds." The rebate constitutes pledged revenue under the Bond Resolution and totaled \$75,172,932 in 2013 which decreased \$6,492,393 or 7.9% from \$81,665,325 in 2012 due to automatic Federal deficit reduction spending cuts. This reimbursement constituted about 4.7% of the Authority's 2013 revenue.

Miscellaneous revenues were \$12,867,240 or about 0.8% of the Authority's revenue. The 2013 amount was \$3,004,419 or 30.5% higher than in 2012. The increase is largely due to the receipt of two nonrecurring settlement payments received in 2013. Arts Center rent was \$3,177,928 or 0.2% of total Authority revenues and was \$59,985 greater than 2012 due to a contractual rent increase.

Operating Expenses in 2013 were \$473,034,818, which was \$800,286 higher than 2012. Annual operating expenses were impacted by increased snow and utility costs. For the twelve months ended December 31, 2013 the Authority expended \$19,935,100 in its operating budget for snow costs offset by the reduction of its authorized headcount from 2,011 in 2012 to 2,004 in 2013. In 2011, the Authority signed the memorandums of agreement with the unions representing the Authority's Toll Collectors. These MOA's achieved payroll savings of \$19,994,000 in 2013 due to reductions in toll collector salaries and an increase in the number of part-time toll collectors. The Authority continues to reduce its authorized headcount and control of discretionary expenses.

Debt service in 2013 was \$584,772,000 which was a \$12,369,000 decrease over 2012. Debt service funding decreased due to savings from the various bond refundings completed in 2013 as well as from the application of excess escrow funds that were required to be applied to Series 2012 B Bonds and Series 2012 G Bonds interest expense payments in 2013.

After providing for required funding to the Charges Fund, the Maintenance Reserve Fund and the Special Project Reserve Fund, the Authority deposited \$441,538,000 into its General Reserve Fund in 2013. The Authority's expenses of \$381,125,000 consist primarily of \$324,000,000 for the State Transportation Capital Plan, \$22,000,000 for State Transportation Trust Fund Payments, \$8,001,000 for feeder road payments to the State Department of Transportation and \$27,124,000 on pay-as-you-go capital projects.

## **Fiscal Year 2012**

Revenues available for operating expenses, debt service and reserves totaled \$1,582,427,336 in 2012, which was \$453,043,531, or 40%, more than the revenues of \$1,129,383,805 in 2011. Toll revenue is the principal source of revenue and in 2012 tolls constituted approximately 88% of total revenues. Revenues from tolls were \$1,393,658,485, which was \$444,779,672 or 46.9% more than the \$948,878,813 earned in 2011. The higher toll revenues are the result of the 53% toll increase on the Turnpike and 50% toll increase on the Parkway that went into effect on January 1, 2012. Traffic on the Turnpike decreased by approximately 4.3% while Parkway toll transactions declined by about 3.1%. Prior to Superstorm Sandy in October 2012, toll revenues were approximately \$10 million ahead of projections. Traffic and toll revenues were also impacted by the continuing weak economic conditions and consistently high fuel prices.

In 2012, *E-ZPass* Fees accounted for 3% of the Authority's 2012 revenue. *E-ZPass* Fees increased \$7,618,882 or 19.2%, to \$47,314,572 from \$39,695,690 in 2011. The increase in revenues resulted from an increase to \$50 from \$25 for the administrative fee charged to toll violators, the implementation of charging administrative fees to Automatic Coin Machine violators on the Parkway in October 2011 and an increase in membership fees as 93,600 new customer accounts were added in 2012. *E-ZPass* transactions in 2012 were 79.2% of all transactions on the Turnpike and 76% of all toll transactions on the Parkway increasing from 76.5% and 72.5%, respectively, in 2011.

Concession revenues were \$34,989,967 and constituted about 2.2% of 2012 revenues. Concession revenues increased \$1,220,319 or 3.6% from the \$33,769,648 recorded in 2011. Increases in rent payments from both food and fuel sales along both roadways contributed to the increase.

Investment income in 2012 was \$11,818,223 or 0.7% of the Authority's total income for 2012. Investment income declined \$227,917 or about 2.3% from 2011 as 2012 market rates were lower than 2011.

The Authority issued the Series 2009 F Bonds in April 2009 and the Series 2010 A Bonds in December 2010. Both Series were issued under the Build America Bond program authorized by the American Reinvestment and Recovery Act of 2009. Prior to March 1, 2013, the Federal Government reimbursed the Authority for 35% of the interest payable on both of these issues. See "CERTAIN RISK FACTORS – Federal Subsidy on Build America Bonds." The rebate constitutes pledged revenue under the Bond Resolution and totaled \$81,665,325 in 2012 which was unchanged from 2011. This reimbursement constituted about 5.2% of the Authority's 2012 revenue.

Miscellaneous revenues were \$9,862,821 or about 0.6% of the Authority's revenue. The 2012 amount was \$227,917 or 2.3% lower than in 2011. The decrease is largely due to lower surplus property sales. Arts Center rent was \$3,117,943 or 0.2% of total Authority revenues and was \$58,940 greater than 2011 due to a contractual rent increase.

Operating Expenses in 2012 were \$472,234,532, which was \$3,201,062 lower than 2011. The Authority continues to reduce its authorized headcount, eliminating another 41 positions in 2012, for a total of 2,011 employees. During 2011 the Authority signed memorandums of agreement with the unions representing the Authority's Toll Collectors. See "THE AUTHORITY – Organization" herein. These MOA's achieved an additional payroll savings of \$13,745,000 in 2012. On January 1, 2011, the Authority extended its contract with ACS through July 31, 2014 to provide back office services relative to the Authority's E-ZPass operations. As part of this extension, discounts were negotiated for certain fees which resulted in cost savings of \$2,388,000 in 2012. Additional savings resulted from a decrease in utility costs of \$418,000 and \$2,534,000 in lower snow removal costs.

Debt service in 2012 was \$597,141,000 which was a \$183,511,000 increase over 2011. Debt service primarily increased due to higher interest expense. In 2011, the interest expense for the Series 2009 E Bonds, Series 2009 F Bonds and Series 2010 A Bonds was paid fully or partially from capitalized interest (bond proceeds). In 2012, 100% of the interest expense for these issues was paid from revenues.

After providing for required funding to the Charges Fund, the Maintenance Reserve Fund and the Special Project Reserve Fund, the Authority deposited \$403,015,000 into its General Reserve Fund in 2012. The Authority's expenses of \$392,730,000 consist primarily of \$331,000,000 for the State Transportation Capital Plan, \$22,000,000 for State Transportation Trust Fund Payments, \$8,001,000 for feeder road payments to the State Department of Transportation and \$31,729,000 on pay-as-you-go capital projects.

### **Summary of Projected Operations by the Traffic Engineer**

On May 1, 2014, CDM Smith Inc. ("CDM Smith"), as the Traffic Engineer for the Authority, delivered to the Authority a detailed traffic and toll revenue projection study presenting its analyses and findings relative to recent trends in traffic and revenue on the Turnpike and the Parkway (the "Original Report"). On October 2, 2015, CDM Smith issued a drawdown letter (the "2015 Draw Down Letter") that updated the short term forecasts in the Original Report. Subsequently, CDM Smith issued a second drawdown letter dated March 8, 2017 (the "2017 Draw Down Letter") that updated the short term forecasts in the 2015 Draw Down Letter and the Original Report through the year 2026. The Original Report analyzed existing usage and the sensitivity of patrons to adjustments to toll charges as related to the quality of traffic service provided by the Turnpike and the Parkway versus alternate routes. The Original Report also incorporates analysis of land use developments that will affect traffic and all roadway improvements and operational modifications proposed by the Authority. See APPENDIX B – "2017 DRAW DOWN LETTER, 2015 DRAW DOWN LETTER AND REPORT OF TRAFFIC ENGINEER" hereto.

Current professional practices and procedures were used by CDM Smith in the development of the Original Report, the 2015 Draw Down Letter and the 2017 Draw Down Letter. However, there is considerable uncertainty inherent in future traffic and revenue forecasts for any toll facility, including the Turnpike and the Parkway, and there may sometimes be differences, which could be material, between forecasted and actual results caused by events and circumstances beyond the control of the forecasters. Additionally, it should be recognized that the traffic and revenue forecasts contained in the Original Report, the 2015 Draw Down Letter and the 2017 Draw Down Letter are intended to reflect the overall estimated long-term trend and actual experience in any given year may vary due to economic conditions and other factors.

The purpose of the Original Report, the 2015 Draw Down Letter and the 2017 Draw Down Letter was to produce estimates of traffic volume and annual toll revenue on the Turnpike and the Parkway

through the year 2026, recognizing all improvements identified for the Authority's Capital Improvement Program, as well as potential impacts resulting from developments not related to the Turnpike or the Parkway. The traffic and revenue forecasts were based on a detailed analysis of the past relationship between actual Turnpike and Parkway transactions and actual socio-economic data. The development of the new forecasts relied on the most currently available information relating to the Capital Improvement Program, historic traffic and toll revenue trends through December 2016, and the Authority's most recent assumptions concerning toll schedules and discount programs. In addition, the estimated E-ZPass market share was developed for the forecast period based on historical trends and on future toll schedule assumptions. Site visits and meetings with local Metropolitan Planning Organizations and other agencies were conducted in order to complete the analysis of the potential growth in traffic and toll revenue on the Turnpike and Parkway contained in the Original Report.

Table 6(a) provides a summary of CDM Smith's projected traffic volume on the Turnpike through 2026 by vehicle class. As shown in Table 6(a), total passenger car traffic on the Turnpike is expected to increase from approximately 223.6 million cars in 2016 to 256.3 million cars by 2026. Total annual commercial vehicle traffic for the Turnpike is estimated to increase from approximately 31.9 million vehicles in 2016 to 36.3 million vehicles in 2026. Total vehicle traffic is expected to increase from approximately 255.5 million vehicles to approximately 292.6 million vehicles between the years 2016 and 2026, representing an average annual growth of approximately 1.4 percent.

<u>Year</u>	<u>Passenger Cars</u>	<u>Commercial Vehicles</u>	<u>Total Vehicles</u>
2016 <sup>(1)(2)</sup>	223,634	31,860	255,494
2017 <sup>(3) (4)</sup>	224,240	32,033	256,273
2018	223,598	32,591	256,189
2019	227,041	33,015	260,056
2020 <sup>(2)</sup>	231,569	33,544	265,113
2021	235,034	33,913	268,947
2022	239,147	34,370	273,517
2023	243,332	34,834	278,166
2024 <sup>(2)</sup>	248,209	35,393	283,602
2025	251,923	35,781	287,704
2026	256,332	36,264	292,596

<sup>(1)</sup> Data through December 2016 is actual.

<sup>(2)</sup> Leap year, includes 29 days in February.

<sup>(3)</sup> Assumes Pulaski Skyway opening to traffic in both directions beginning October 1, 2017.

<sup>(4)</sup> Includes the traffic and revenue impacts of the Delaware River Bridge closure between January 20, 2017 and March 12, 2017.

Table 6(b) provides a summary of CDM Smith's estimated annual gross toll revenue from the Turnpike by vehicle class for the years 2016 through and including 2026. As shown, passenger car toll

revenue is expected to increase from approximately \$776.3 million in 2016 to approximately \$882.1 million in 2026. Commercial vehicle toll revenue is estimated to increase from approximately \$368.2 million to approximately \$416.0 million over the same forecast period. Total annual gross toll revenue for the Turnpike is estimated to increase from approximately \$1,144.6 million in 2016 to approximately \$1,298.1 million in 2026. The average annual percent increase in total annual gross toll revenue amounts to approximately 1.3 percent.

**Table 6(b) – Estimated Toll Revenues for the Turnpike (\$000s)**

<u>Year</u>	<u>Passenger Car Toll Revenues</u>	<u>Commercial Vehicle Toll Revenues</u>	<u>Total Toll Revenues</u>
2016 <sup>(1)(2)</sup>	\$ 776,337	\$ 368,221	\$ 1,144,558
2017 <sup>(3) (4)</sup>	767,388	369,912	1,137,300
2018	770,961	376,197	1,147,158
2019	782,748	380,152	1,162,900
2020 <sup>(2)</sup>	797,958	385,841	1,183,799
2021	809,491	389,664	1,199,155
2022	823,243	394,598	1,217,841
2023	837,397	399,710	1,237,107
2024 <sup>(2)</sup>	854,182	405,999	1,260,181
2025	866,963	410,416	1,277,379
2026	882,134	415,957	1,298,091

<sup>(1)</sup> Data through December 2016 is actual.

<sup>(2)</sup> Leap year includes 29 days in February.

<sup>(3)</sup> Assumes Pulaski Skyway opening to traffic in both directions beginning October 1, 2017.

<sup>(4)</sup> Includes the traffic and revenue impacts of the Delaware River Bridge closure between January 20, 2017 and March 12, 2017.

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Table 6(c) provides a summary of CDM Smith’s projected toll transactions and estimated total annual gross toll revenue for the Parkway through 2026. The Parkway does not separately project the number of transactions involving commercial vehicles or the revenues therefrom since commercial vehicles are only allowed below Exit 105 and provide revenues that amount to less than 4% of total Parkway revenues.

As shown in Table 6(c), CDM Smith’s estimates that total toll transactions on the Parkway will increase from approximately 389.6 million transactions in 2016 to 427.9 million transactions by 2026. This represents an average annual increase in toll transactions of approximately 0.9 percent. As shown in Table 6(c), total annual gross toll revenue on the Parkway is estimated by CDM Smith to be approximately \$426.1 million in 2016. With normal growth, along with all assumed impacts, CDM Smith estimates that such revenue will increase to approximately \$469.9 million in 2026. This represents an average increase in total gross toll revenue for the Parkway of approximately 1.0 percent per year.

**Table 6(c) – Parkway – Number of Transactions (000s)  
and Amount of Toll Revenues (\$000s)**

<u>Year</u>	<u>Total Toll Transactions</u>	<u>Total Toll Revenues</u>
2016 <sup>(1)(2)</sup>	389,609	\$ 426,105
2017	391,297	428,123
2018	394,661	432,009
2019	399,003	436,957
2020 <sup>(2)</sup>	404,400	443,033
2021	407,385	446,470
2022	411,418	451,059
2023	415,491	455,695
2024 <sup>(2)</sup>	420,654	461,529
2025	423,759	465,109
2026	427,954	469,882

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<sup>(1)</sup> Data through December 2016 is actual.

<sup>(2)</sup> Leap year includes 29 days in February.

Table 6(d) provides a summary of CDM Smith’s estimated annual gross toll revenue for both the Turnpike and the Parkway during the years 2016 through and including 2026. As shown in Table 6(d), annual gross toll revenue for both the Turnpike and the Parkway is estimated to be approximately \$1,570.7 million in 2016. With normal growth, along with all assumed impacts, CDM Smith estimates that such revenue will increase to approximately \$1,768.0 million in 2026. This represents a compound growth rate in total gross toll revenue from both the Turnpike and the Parkway of approximately 1.2 percent per year.

**Table 6(d) – Estimated Gross Toll Revenue for both the Turnpike and the Parkway (\$000s)**

<u>Year</u>	<u>Turnpike Toll Revenues</u>	<u>Parkway Toll Revenues</u>	<u>Total Toll Revenues</u>
2016 <sup>(1)(2)</sup>	\$ 1,144,558	\$ 426,105	\$ 1,570,663
2017 <sup>(3)(4)</sup>	1,137,300	428,123	1,565,423
2018	1,147,158	432,009	1,579,167
2019	1,162,900	436,957	1,599,857
2020 <sup>(2)</sup>	1,183,799	443,033	1,626,832
2021	1,199,155	446,470	1,645,625
2022	1,217,841	451,059	1,668,900
2023	1,237,107	455,695	1,692,802
2024 <sup>(2)</sup>	1,260,181	461,529	1,721,710
2025	1,277,379	465,109	1,742,488
2026	1,298,091	469,882	1,767,973

<sup>(1)</sup> Data through December 2016 is actual.

<sup>(2)</sup> Leap year includes 29 days in February.

<sup>(3)</sup> Assumes Pulaski Skyway opening to traffic in both directions beginning October 1, 2017.

<sup>(4)</sup> Includes the traffic and revenue impacts of the Delaware River Bridge closure between January 20, 2017 and March 12, 2017.

For a more detailed discussion of the assumptions and methodology used by CDM Smith in connection with all of its forecasts summarized above, see APPENDIX B – “2017 DRAW DOWN LETTER, 2015 DRAW DOWN LETTER AND REPORT OF TRAFFIC ENGINEER” attached hereto.

### **Summary of the Report of the Consulting Engineer**

HNTB Corporation (“HNTB”) serves as the Consulting Engineer to the Authority. In this capacity, HNTB has prepared a report dated March 17, 2017 estimating (a) the operating expenses of the Turnpike System, which is comprised of the Turnpike and the Parkway, for the years 2017 through and including 2027, and (b) the required deposits to the Maintenance Reserve Fund and the Special Project



Reserve Fund for the years 2017 through and including 2027. Amounts on deposit in the Maintenance Reserve Fund are used to provide for annual major maintenance of the roadways and bridges, while amounts on deposit in the Special Project Reserve Fund are intended to be used for the annual maintenance and improvement of all other elements of the Turnpike System that in some manner contribute to the proper and efficient operation of the Turnpike and the Parkway.

With respect to the operating expenses of the Turnpike System, HNTB estimates that such expenses will be approximately \$528,762,000 in 2017 and will increase to approximately \$640,800,000 in 2027, representing an average annual increase of approximately 2.1%.

HNTB's report also estimates that deposits into the Maintenance Reserve Fund and the Special Project Reserve Fund combined should be budgeted at \$156,447,000 in 2017 and should be increased to \$190,709,000 by 2027.

HNTB's report also discusses the state of good repair of the Turnpike System, including the Authority's annual inspection program for the roads, bridges, buildings and toll plazas comprising the Turnpike System, and contains a description of the pavement structure utilized on the Turnpike which minimizes major rehabilitation needs and allows the Authority to remove and replace only the top two inches of pavement as part of its resurfacing program for the Turnpike.

For a more detailed discussion of the assumptions and methodology used by HNTB in estimating future operating expenses of the Turnpike System and the required deposits to the Maintenance Reserve Fund and the Special Project Reserve Fund, as well as the state of good repair of the Turnpike System and the pavement structure utilized on the Turnpike, see APPENDIX C – "REPORT OF CONSULTING ENGINEER" attached hereto.

### **Summary of Projected Net Revenues and Debt Service Coverage of the Turnpike System**

The following table provides a summary of the Authority's projected Revenues, Operating Expenses, Debt Service and Net Revenues for its fiscal years 2017 through and including 2023 for the Turnpike System. The information contained in this table constitutes "forward-looking statements" for purposes of this Official Statement. Accordingly, the achievement of the results and other expectations contained in this table involves known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to be materially different from the future results and other expectations of the Authority described in or expressed or implied by the information set forth in this table.

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# New Jersey Turnpike Authority

## Projected Revenue, Expenditure, and Debt Service Coverage (\$000s)

(Based on General Resolution Provisions, Not in Accordance with GAAP)

	Actual 2014	Actual 2015	Unaudited 2016	Estimated 2017	Estimated 2018	Estimated 2019	Estimated 2020	Estimated 2021	Estimated 2022	Estimated 2023
<b>Revenues</b>										
Toll Revenue										
Turnpike (1)	\$ 1,037,744	\$ 1,106,268	\$ 1,144,558	\$ 1,137,300	\$ 1,147,158	\$ 1,162,900	\$ 1,183,799	\$ 1,199,155	\$ 1,217,841	\$ 1,237,107
Parkway (1)	408,004	416,865	426,104	428,123	432,009	436,957	443,033	446,470	451,059	455,695
E-ZPass Fees	52,773	56,262	62,579	59,200	60,300	61,500	62,700	63,900	65,100	65,100
Federal Subsidy for Series 2009 F and 2010 Bonds (2)	75,745	75,908	76,071	76,030	76,030	76,030	76,030	76,030	76,030	76,030
Concession Revenue	36,842	38,993	38,192	39,200	40,000	40,800	41,600	42,400	43,200	43,200
Other Revenue	28,574	28,002	40,311	28,392	28,533	28,709	28,872	29,031	29,200	29,200
<b>Total Revenues</b>	<b>1,639,682</b>	<b>1,722,298</b>	<b>1,787,815</b>	<b>1,768,245</b>	<b>1,784,030</b>	<b>1,806,896</b>	<b>1,836,034</b>	<b>1,856,986</b>	<b>1,882,430</b>	<b>1,906,332</b>
<b>Operating Expenses (3)</b>	<b>(472,772)</b>	<b>(503,453)</b>	<b>(493,225)</b>	<b>(528,762)</b>	<b>(539,594)</b>	<b>(549,989)</b>	<b>(560,589)</b>	<b>(571,396)</b>	<b>(582,415)</b>	<b>(593,650)</b>
<b>Total Revenues Available for Debt Service</b>	<b>1,166,910</b>	<b>1,218,845</b>	<b>1,294,589</b>	<b>1,239,483</b>	<b>1,244,436</b>	<b>1,256,907</b>	<b>1,275,445</b>	<b>1,285,590</b>	<b>1,300,015</b>	<b>1,312,682</b>
<b>Expected Future Debt Issuance</b>				<b>1,125,000</b>						
<b>Net Debt Service (4)(5)(6)</b>	<b>(608,896)</b>	<b>(661,426)</b>	<b>(773,078)</b>	<b>(829,582)</b>	<b>(825,276)</b>	<b>(863,115)</b>	<b>(878,545)</b>	<b>(876,266)</b>	<b>(906,955)</b>	<b>(910,535)</b>
<b>Total Revenues Available After Debt Service</b>	<b>558,014</b>	<b>557,419</b>	<b>521,512</b>	<b>409,901</b>	<b>419,160</b>	<b>393,792</b>	<b>396,900</b>	<b>409,324</b>	<b>393,060</b>	<b>402,147</b>
Payments to Charges Fund (7)	(1,150)	(535)	(94)	(155)	(155)	(155)	(155)	(155)	(155)	(155)
<b>Cash Flow Available for Reserves</b>	<b>556,864</b>	<b>556,884</b>	<b>521,418</b>	<b>409,746</b>	<b>419,005</b>	<b>393,637</b>	<b>396,745</b>	<b>409,169</b>	<b>392,905</b>	<b>401,992</b>
Maintenance Reserve Fund (3)	(74,814)	(87,058)	(89,370)	(116,751)	(119,086)	(121,468)	(123,897)	(126,375)	(128,903)	(131,481)
Special Project Reserve Fund (3)	(28,800)	(50,301)	(38,918)	(39,696)	(40,490)	(41,300)	(42,126)	(42,969)	(43,828)	(44,705)
<b>Net Revenues Available for General Reserve Fund</b>	<b>453,250</b>	<b>419,525</b>	<b>393,130</b>	<b>253,299</b>	<b>259,429</b>	<b>230,869</b>	<b>230,722</b>	<b>239,825</b>	<b>220,174</b>	<b>225,806</b>
TTF Payments	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)
Feeder Road Maintenance Agreement	(8,001)	(8,001)	(8,000)	(6,500)	(4,500)	(3,500)	(2,500)	(2,500)	(2,500)	(2,500)
Prior and Existing State Transportation Funding Agreement	(324,000)	(324,000)	(264,000)	(204,000)	(166,500)	(129,000)	(129,000)	(64,500)		
Assumed Amounts for Additional State Transfers (8)								(64,500)	(129,000)	(129,000)
Supplemental Capital/General Reserve Spending	(67,761)	(68,332)	(43,018)	(136,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)
<b>Net Annual General Reserve Fund Increase (Decrease)</b>	<b>31,488</b>	<b>(2,808)</b>	<b>56,112</b>	<b>(115,201)</b>	<b>(8,571)</b>	<b>1,369</b>	<b>2,222</b>	<b>11,325</b>	<b>(8,326)</b>	<b>(2,694)</b>
<b>Ending General Reserve Fund Balance</b>	<b>246,007</b>	<b>243,198</b>	<b>331,093 <sup>(9)</sup></b>	<b>215,892</b>	<b>207,321</b>	<b>208,689</b>	<b>210,912</b>	<b>222,237</b>	<b>213,911</b>	<b>211,217</b>
<b>Debt Service Coverage Ratio</b>										
<b>Net Revenues / Debt Service</b>	<b>1.93</b>	<b>1.84</b>	<b>1.67</b>	<b>1.49</b>	<b>1.51</b>	<b>1.46</b>	<b>1.45</b>	<b>1.47</b>	<b>1.43</b>	<b>1.44</b>
<b>Net Revenues / Debt Service and Reserves</b>	<b>1.65</b>	<b>1.52</b>	<b>1.44</b>	<b>1.26</b>	<b>1.26</b>	<b>1.23</b>	<b>1.22</b>	<b>1.23</b>	<b>1.20</b>	<b>1.21</b>

Totals may not add due to rounding

### Footnotes:

- (1) From Drawdown Letter by CDM Smith dated March 8, 2017
- (2) Assumes 7.3% reduction in BAB subsidy throughout projection period
- (3) From Consulting Engineer Report by HNTB Corporation dated March 9, 2017
- (4) Existing debt service includes applicable spread of variable rate bonds and unhedged portions of the 2015A Bonds at maximum rate of 12% and assumes swapped debt will achieve synthetic fixed rate
- (5) Debt Service for future planned capital program borrowing assumed at 5.0% for all future borrowings
- (6) Bonds with mandatory tender dates are assumed to roll-over at their respective current spreads through maturity
- (7) Reflects projected on-going annual fees and charges related to auction rate bonds of the Authority
- (8) Represents amounts the Authority has assumed for payment to the State after the expiration of the State Transportation Projects Funding Agreement. There can be no assurance that the Authority will not be requested to accelerate, increase or otherwise modify any such payments either before or after the expiration of the State Transportation Projects Funding Agreement
- (9) Includes a one-time transfer of \$31.782 million of excess working capital reserve previously held in the Revenue Fund and transferred to the General Reserve Fund in 2016

## **Environmental Matters**

### *The Turnpike*

The Authority continues with the remediation of environmental contamination resulting from historical discharges from underground storage tanks located at the service areas, maintenance districts and interchanges along the Turnpike. Progress is being made in addressing the contamination and No Further Action letters or Response Action Outcomes (“RAOs”) have been achieved at several locations. The Authority met the New Jersey Department of Environmental Protection (NJDEP) Remedial Investigation (RI) deadline of May 2016 for all applicable Turnpike sites with the focus now on Remedial Action (RA). The remediation progress has eliminated all but two groundwater treatment systems located at two Service Areas on the Turnpike roadway. These two groundwater treatment systems will be in operation for the foreseeable future and will necessitate periodic monitoring, sampling and maintenance under directives issued by the NJDEP.

In the late 1980’s, the NJDEP determined that residues from the processing of chromium ore were distributed as fill material on construction projects throughout Hudson County, New Jersey, and in surrounding environs. The contaminant levels at certain sites receiving chromium ore processing residue exceed the currently established standards. Seven sites owned or controlled by the Authority are included on the NJDEP’s list of sites containing contamination from chromium ore processing residue above the currently established levels.

In May 2005, the NJDEP instituted litigation against the three firms which had generated the chromium ore processing residue. The Authority was not named as a defendant in such litigation by the NJDEP. In March 2006, the Authority was named as a third party defendant by one of the firms as a result of the Authority’s ownership of certain parcels impacted by the residue. The Authority accepted responsibility to remediate conditions at three affected sites with the understanding that, by doing so, it will not have any responsibility for any additional sites. The approximate cost to complete the remediation of the three sites is estimated to be approximately \$17 million over a 30 year period. Remediation of one site has been completed and a RAO was submitted to the NJDEP in March of 2015 to close the site. Remediation work is ongoing at the remaining two chrome sites.

### *The Parkway*

Remediation of environmental contamination continues on the Parkway resulting from the operation of service areas, toll plazas, maintenance districts, communication towers and State Police barracks along the Parkway. Reported petroleum discharges at these facilities along the Parkway have resulted in the assignment of case numbers by the NJDEP to the facilities, and issuance of directives by the NJDEP to address specific environmental concerns at the sites.

No Further Action letters or ROAs have been achieved at several locations. However, a number of sites still require further remedial investigation. Additionally, a number of facilities have active soil and groundwater remediation systems in operation. These systems will be in operation for the foreseeable future and will necessitate periodic monitoring, sampling and maintenance under directives issued by the NJDEP.

### *Generally*

With respect to the Turnpike System generally, soil contamination, groundwater contamination and/or solid waste found on off-site properties, Authority properties, and properties for which the Authority has assumed remediation responsibility, as well as waterway contamination that is alleged to

have resulted from operations conducted at Parkway facilities, have resulted in claims against the Authority and may lead to additional claims in the future. Claims for reimbursement of remediation costs and other alleged damages have been asserted or may be forthcoming from other parties responsible for undertaking remediation activities at these properties. As a result, it may be necessary for the Authority to undertake, fund or reimburse others for remediation activities at these properties. The Authority believes the ultimate resolution of these claims will not have a material adverse impact on the financial position of the Authority. As to environmental regulatory compliance expenditures, such costs are also not expected to have a material adverse impact on the financial position of the Authority.

## **State and Interstate Highways**

The following is a summary of the relationship between the Turnpike or Parkway and certain existing or planned major State and Interstate highways. In certain cases, these routes serve as “feeders” of traffic to the Turnpike or Parkway, while in other cases, as indicated, the complete routes or certain segments thereof are competitive with the Turnpike or Parkway. In addition, the Turnpike and Parkway intersect each other at Interchange 11 and Interchange 129, respectively, in Woodbridge.

*Interstate Route 95 (I-95).* This route constitutes the principal north-south Interstate Route between Maine and Florida, and is a very heavily traveled highway. I-95 enters the State in the north via the George Washington Bridge. Just west of the bridge, I-95 becomes part of the Turnpike for a distance of approximately 70 miles to Interchange 6 and across the Pearl Harbor Memorial Extension. Thereafter, I-95 continues onto the Pennsylvania Turnpike to a point west of the Delaware River.

*Interstate Route 195 (I-195).* This route begins at I-295 just south of Trenton and extends easterly, intersecting with the Turnpike at Interchange 7A. It continues easterly through Monmouth County, terminating at Route 34 just west of the Parkway. This route provides an east-west connection between Trenton and the Jersey Shore.

*Interstate Route 295 (I-295).* This route extends from the Delaware Memorial Bridge northeasterly in a corridor between the Turnpike and the Delaware River, to an intersection with I-195 west of Interchange 7A. Beyond I-195, I-295 continues northerly to an intersection with US Route 1, north and west of Trenton. The I-295 segment from the Delaware Memorial Bridge to Interchange 7 is in close proximity and roughly parallel to the Turnpike.

*Interstate Route 278 (I-278).* This route is an auxiliary Interstate Highway in New Jersey and New York. The New York segment travels through four of the five boroughs, excluding Manhattan. The New Jersey segment begins at US Route 1 & 9 traveling easterly to the Goethals Bridge and intersects with the New Jersey Turnpike at Interchange 13.

*Interstate Route 287 (I-287).* This route is a circumferential bypass of the New York-Northern New Jersey Metropolitan Area. At its southern end, it joins the Turnpike at Interchange 10, swings westward to the area of Bound Brook, thence in a large circular pattern through Morristown and connects at its northern end with the New York State Thruway at Suffern, New York.

*Interstate Route 78 (I-78).* This route enters the State at the Holland Tunnel, follows the Turnpike’s Newark Bay-Hudson County extension (which has been designated I-78) to its intersection with the mainline Turnpike at Newark Airport (Interchange 14) and continues westward and connects with the Parkway in Union and then runs roughly along the alignment of US Route 22 to Phillipsburg, New Jersey – Easton, Pennsylvania.

*Interstate Routes 80 and 280 (I-80 and I-280).* I-80 is one of the principal east-west routes of the Interstate System extending from New York City to San Francisco. It begins in the State in the vicinity of Ridgefield Park and crosses the State along the same general alignment as US Route 46 as far as Netcong, New Jersey, then swings along a more northerly alignment to the vicinity of the Delaware Water Gap. Crossing Pennsylvania, the route is known as the Keystone Shortway. I-80 directly connects with the Parkway in Saddlebrook and with the Turnpike via I-95 at Ridgefield Park. I-280, an alternate route of I-80, branches off from I-80 in the vicinity of Parsippany-Troy Hills, Morris County, and follows a southeasterly alignment through the Oranges, Newark and Harrison, connecting with the Parkway in East Orange and the Turnpike at Interchange 15W, just north of the Passaic River.

*US Route 1 & 9.* US Route 1 is a principal urban arterial route and, before the existence of the interstate highway system, served as the original Maine to Florida highway. In the State, US 1 follows a generally northeast-southwest path, closely paralleling the Turnpike from New Brunswick north to the vicinity of Jersey City. South of New Brunswick the paths diverge as US 1 continues on a direct path to Trenton. North of New Brunswick, US 1 joins with US 9. The northern section of US 1&9 and its companion truck route, US 1&9T, serve as feeder roads to the Holland Tunnel. To a limited extent, US 1 and US 1&9T, represent competitive routes to the Turnpike notwithstanding the presence of numerous signal controlled intersections and heavy congestion during peak travel times.

*US Route 130.* The northern terminus of this highway is south of New Brunswick, where it intersects with US 1. The road roughly parallels the Turnpike throughout its length between the northern terminus and the Camden area. The road has a character similar to southern sections of US 1. There are numerous signalized intersections and such road is heavily congested.

*US Route 9.* US Route 9 begins in the State at the Cape May Lewes Ferry west of the southernmost terminus of the Parkway in Cape May County. US Route 9 generally parallels the Parkway along the southern half of the Parkway from Cape May to Toms River. There, US Route 9 runs west of the Parkway and rejoins the Parkway at Interchange 123 in Sayreville, just south of the Raritan River. The Parkway and US Route 9 share river crossings at Great Egg Harbor and the Mullica River, and are co-aligned in a four mile section of the Parkway in Cape May County and a three mile section in Ocean County. US Route 9 is a competitive route to the Parkway for the southernmost eighty miles of the Parkway.

*Atlantic City Expressway.* The Atlantic City Expressway is a limited access toll road operated by the South Jersey Transportation Authority. It runs northwesterly across the State from Atlantic City across the Parkway to Route 42, southeast of Camden. The Atlantic City Expressway provides access to the South Jersey beach resorts from the Philadelphia/Camden area.

*Route 17.* Route 17 runs northwesterly through Bergen County from North Arlington to Mahwah, where it merges with Interstate 287. This route provides a connection between the George Washington Bridge and Lincoln Tunnel to the New York State Thruway.

*Route 72.* Route 72 runs northwesterly from the midpoint of Long Beach Island to Route 70 in Pemberton Township. Route 72 provides access from the northern part of the State to the shore resorts in southern Ocean County from the Parkway.

*Route 33.* Route 33 begins in Trenton, Mercer County. It continues easterly across the State and terminates in Neptune Township. This route provides an east-west connection between Trenton and Monmouth County.

*Route 37.* Route 37 is a principal arterial route in northern Ocean County. This route begins on Ocean County's northern barrier island and terminates at Route 70 in Lakehurst. Route 37 serves as a

collector for traffic traveling both north and south on the Parkway and provides access to the shore area from the north, via the Parkway.

*Route 70.* Route 70 begins in southern Monmouth County, just north of the Manasquan River. It continues westerly across the State and terminates in Camden. This route provides an east-west connection between Philadelphia/Camden and northern Ocean County.

*Route 440.* There are two segments of Route 440, one in Middlesex County and the other in Hudson County. The Middlesex County segment links the New Jersey Turnpike and the southerly terminus of Interstate 287 to Staten Island, New York. This segment then intersects the Garden State Parkway 2 miles east, then continues easterly to the Outerbridge Crossing in Perth Amboy. The Hudson County segment of Route 440 runs from the Bayonne Bridge in Bayonne to US Route 1 Truck in Jersey City. Route 440 intersects at the New Jersey Turnpike Interchange 14A in Jersey City.

*US Route 206.* Route 206 extends from the Pennsylvania state line in northwest New Jersey to the Atlantic City Expressway in the vicinity of Hammonton. The road runs essentially north-south and intersects the Turnpike at Interchange 7. The road has many closely spaced signalized intersections near population centers such as Trenton, Princeton and Somerville and more rural characteristics along its northern and southern limits.

*State Route 18.* The northern terminus of State Route 18 is located in New Brunswick, just north of its intersection with US Route 1 and Turnpike Interchange 9. The roadway extends in a southeasterly direction and terminates at Interstate 195 in Wall Township. The northern portion of Route 18 is similar to US 1 in that it is flanked with retail development and has many closely spaced traffic signals for cross streets and turning movements. South of Old Bridge the roadway becomes a four lane expressway providing direct access to the Parkway and shore towns from the New Brunswick area.

*Interstate Route 495 (I-495).* This route intersects the Turnpike at Interchanges 16E and 17 and provides direct access to New York City via the Lincoln Tunnel.

## **CERTAIN RISK FACTORS**

The Series 2017 A Bonds are revenue obligations of the Authority which are payable solely from the Pledged Revenues and the other moneys, funds and accounts pledged to the payment thereof pursuant to the Resolution. The following is a discussion of certain risk factors that should be considered in evaluating an investment in the Series 2017 A Bonds. This discussion does not purport to be either comprehensive or definitive. The order in which risks are presented is not intended to reflect either the likelihood that a particular event will occur or the relative significance of such an event. Moreover, there may well be other risks associated with an investment in the Series 2017 A Bonds in addition to those set forth herein.

### **General**

The financial forecasts set forth in this Official Statement are based generally upon certain assumptions and projections as to estimated revenues and operating and maintenance expenses. See “2017 DRAW DOWN LETTER, 2015 DRAW DOWN LETTER AND REPORT OF TRAFFIC ENGINEER” included as Appendix B to this Official Statement. Inevitably, some underlying assumptions and projections used to develop the forecasts will not be realized, and unanticipated events and circumstances may occur. Therefore, the actual results achieved during the forecast periods will vary from the forecasts, and such differences may be material.

## **Forward-Looking Statements**

The statements contained in this Official Statement that are not purely historical are forward-looking statements, including statements regarding the Authority's expectations, hopes, intentions or strategies regarding the future and the projections contained in this Official Statement and in the 2017 Draw Down Letter, the 2015 Draw Down Letter and Report of the Traffic Engineer included as Appendix B to this Official Statement. All forward-looking statements included in this Official Statement are based on information available to the Authority on the date hereof, and the Authority assumes no obligation to update any such forward-looking statements.

The forward-looking statements herein are necessarily based on various assumptions and estimates that are inherently subject to numerous risks and uncertainties, including risks and uncertainties relating to the possible invalidity of the underlying assumptions and estimates and possible changes or developments in social, economic, business, industry, market, legal and regulatory circumstances and conditions and actions taken or omitted to be taken by third parties, including customers, suppliers, business partners and competitors, and legislative, judicial and other governmental authorities and officials. Assumptions related to the foregoing involve judgments with respect to, among other things, future economic, competitive and market conditions and future business decisions, all of which are difficult or impossible to predict accurately and, therefore, there can be no assurance that the forward-looking statements included in this Official Statement will prove to be accurate.

## **Certain Matters Relating to Enforceability of Obligations**

The remedies available to the holders of the Series 2017 A Bonds upon the occurrence of an Event of Default under the Resolution are, in many respects, dependent upon regulatory and judicial actions that are often subject to discretion or delay. Under existing law and judicial decisions, including specifically the United States Bankruptcy Code, the remedies specified in the Resolution may not be readily available or may be limited. In addition, enforcement of such remedies (i) may be subject to general principles of equity which may permit the exercise of judicial discretion, (ii) are subject to the exercise in the future by the State and its agencies and political subdivisions of the police power inherent in the sovereignty of the State, (iii) are subject, in part, to the provisions of the United States Bankruptcy Code and other applicable bankruptcy, insolvency, reorganization, moratorium or similar laws relating to or affecting the enforcement of creditors' rights generally, now or hereafter in effect, and (iv) are subject to the exercise by the United States of the powers delegated to it by the Constitution of the United States of America. The various legal opinions to be delivered concurrently with the delivery of the Series 2017 A Bonds will be qualified to the extent that the enforceability of certain legal rights related to the Series 2017 A Bonds is subject to limitations imposed by bankruptcy, reorganization, insolvency or other similar laws affecting the rights of creditors generally and by equitable remedies and proceedings generally.

## **Legislative Action**

Legislation is introduced from time to time in the State Legislature which, if adopted, may affect the Authority and/or the Turnpike System. The Authority cannot predict whether or not these bills will be enacted into law or how such legislation may affect the Authority and its ability to pay debt service on the Series 2017 A Bonds.

## **Decline in Toll Revenues**

The information provided with respect to toll revenues collected by the Authority is based on historical data. The amount of future toll revenues to be collected by the Authority depends upon a

number of factors, some of which are not in the control of the Authority. Some of these factors include a decline in traffic on the Turnpike System due to general economic conditions, severe weather conditions, diversion of traffic to alternative non-toll routes, increased fuel costs, availability of alternate forms of travel and shipping, and government regulations, such as Clean Air Act requirements, increased mileage standards or higher fuel taxes, which could significantly restrict motor vehicle use. Although the Authority has covenanted in the Resolution to fix, charge and collect tolls for the use of the Turnpike System in amounts so that, in each calendar year, the Net Revenues shall at least equal the Net Revenue Requirement for such year, there can be no assurance that the traffic on the Turnpike System will continue to be sufficient for the Authority to generate the necessary revenues to meet its obligations under the Resolution.

### **Adverse Changes to Third Party Financial Institutions**

Adverse changes in the financial condition of certain third-party financial institutions may adversely affect the Authority's financial position. Different types of investment and contractual arrangements may create exposure for the Authority to such institutions including: (i) risk to the Authority's investment portfolio due to defaults or changes in market valuation of the debt securities of such institutions; and (ii) counterparty risk related to the Qualified Swap Agreements used by the Authority to hedge its interest rate risks with respect to a portion of its Outstanding Bonds.

### **Failure to Pay Mandatory Purchase Price and other Market Disruptions**

As described under "DIRECT PURCHASE TRANSACTIONS" herein, in the event the Authority cannot pay the purchase price for all or a portion of its Direct Purchase Bonds on their respective mandatory tender dates or on any extraordinary mandatory purchase date, such Direct Purchase Bonds will be subject to mandatory redemption in the amounts and on the dates as described under "DIRECT PURCHASE TRANSACTIONS" herein. In addition, the Authority's Outstanding Series 2013 D-3 Bonds, Series 2013 E-3 Bonds and Series 2014 B-3 Bonds are also subject to mandatory tender on the dates and under the circumstances as set forth in the Resolution. In the event the Authority cannot pay the purchase price for all or a portion of the Series 2013 D-3 Bonds, the Series 2013 E-3 Bonds or the Series 2014 B-3 Bonds on their respective mandatory tender dates, a Delayed Remarketing Period will commence with respect to such Series 2013 D-3 Bonds, Series 2013 E-3 Bonds and/or Series 2014 B-3 Bonds on the applicable mandatory tender dates, as described in the Resolution, during which such Series 2013 D-3 Bonds, Series 2013 E-3 Bonds and/or Series 2014 B-3 Bonds will bear interest at the Stepped Interest Rate as described in the Resolution.

The credit markets experience substantial disruption from time to time. There can be no assurance as to the timing of any disruption or the extent of any recovery that may be made by the credit markets. The Authority's currently plans to raise additional funds to pay the remaining costs of the Capital Improvement Program through the issuance of additional Series of Bonds under the Resolution. If the Authority is unable to access the credit markets as a result of any such disruption, it is likely to have to delay the completion of the Capital Improvement Program until such time as the capital markets rebound. The effect of such delays could result in increased costs for the Projects comprising the Capital Improvement Program.

### **Risks Associated With Qualified Swap Agreements**

Based upon the current ratings of the applicable Bonds, the Authority is currently not required to post collateral under any of its Qualified Swap Agreements. With respect to all Qualified Swap Agreements, other than the Series 2014 B-3 Swap Agreement with Citibank, N.A., the rating on the applicable Bonds would have to drop below either Baa2 from Moody's (as hereinafter defined) or below



BBB from S&P (as hereinafter defined), for any collateral posting requirements to be imposed upon the Authority under such agreements. With respect to the Series 2014 B-3 Swap Agreement with Citibank, N.A. only, the rating on the Series 2014 B-3 Bonds would have to drop below A2 from Moody's, below A from S&P and below A from Fitch for any collateral posting requirements to be imposed upon the Authority under such agreements. If the Authority is required to post collateral under any such agreements, it could have a material adverse effect on the Authority's liquidity position.

The Authority is exposed to basis risk under its current Qualified Swap Agreements as the variable rate received from the counterparties under the Qualified Swap Agreements may not perfectly match the variable rate paid on the Bonds intended to be hedged by such Qualified Swap Agreements.

Each of the Authority's current Qualified Swap Agreements provides that an automatic, immediate termination of such Agreement shall take place upon the occurrence of the dissolution, bankruptcy, insolvency, liquidation or any similar related events involving or related to the Authority's counterparty under such Agreement. If a Qualified Swap Agreement is automatically and immediately terminated as a result of any such event and the fair value of such Qualified Swap Agreement is negative to the Authority on the date of such automatic immediate termination, the Authority could be obligated to make a substantial termination payment to the counterparty and the Authority's financial position could be materially adversely affected during the period in which such termination payment would be required to be paid by the Authority.

### **Costs of Construction of the Projects Included in the Capital Improvement Program**

In connection with the Projects included in the Capital Improvement Program, there is a possibility of time delays and cost increases resulting from (i) design and construction problems and resulting change orders, (ii) environmental litigation or environmental administrative matters, (iii) the unavailability or cost of acquiring right-of-way, (iv) archeological, historic and unidentified subsurface conditions, (v) utility relocation problems, (vi) hazardous materials, (vii) force majeure events, (viii) litigation, or (ix) inflation. As a result, there can be no assurance that the costs of completion for the Capital Improvement Program will not exceed current estimates, or that the completion of such projects will not be delayed beyond the scheduled completion date. Variations in cost estimates and delays in construction could be material.

There is also a possibility of insolvency or bankruptcy of the contractors during construction of one or more of the Projects included in the Capital Improvement Program. While the contractors will be required to provide a performance bond and a payment bond, there can be no assurance that such bonds will be sufficient to assure timely completion of the Projects included in the Capital Improvement Program. Moreover, in the event that a default occurs under a construction contract by the contractor, there is a possibility of litigation between the Authority and the providers of the performance bonds and payment bonds and/or the contractor, which could further delay construction and the opening of the Projects included in the Capital Improvement Program. Any such delays and/or cost overruns could result in a substantial increase in the costs of the Capital Improvement Program.

### **CDM Smith Traffic and Revenue Study**

As the Traffic Engineer for the Authority, CDM Smith was requested by the Authority to prepare a traffic and toll revenue projection study (the "CDM Smith Study") presenting its analyses and findings relative to recent trends in traffic and revenue on the Turnpike and the Parkway. See APPENDIX B – "2017 DRAW DOWN LETTER, 2015 DRAW DOWN LETTER AND REPORT OF TRAFFIC ENGINEER" attached to this Official Statement. The revenue forecasts contained in the CDM Smith Study are based upon certain assumptions set forth or incorporated therein. The CDM Smith Study is not

a guarantee of any future events or trends and the forecasts therein are subject to future economic and social conditions and demographic developments that cannot be predicted with certainty. Further, the estimates and assumptions in the CDM Smith Study are inherently subject to significant economic and competitive uncertainties and contingencies, many of which are beyond the control of the Authority. Failure to achieve or realize any of the assumptions listed in the CDM Smith Study may have a materially adverse effect upon the Net Revenues actually realized by the Authority.

### **Federal Subsidy on Build America Bonds**

A series of automatic Federal deficit reduction spending cuts known as “sequestration” took effect on March 1, 2013. Sequestration reduced the Federal subsidy paid to the Authority with respect to its outstanding Build America Bonds for the Federal fiscal years 2013, 2014, 2015, 2016 and 2017 and continued reductions are anticipated for Federal fiscal year 2018 and beyond. The Authority currently has \$3,225,000,000 in principal amount of Build America Bonds outstanding, and is entitled to receive approximately \$81,665,325 in Federal subsidy annually through 2034 eventually declining to a final annual amount receivable in 2040 of approximately \$16,898,609 with respect to such Build America Bonds. The Federal subsidy paid to the Authority with respect to its Build America Bonds was reduced by approximately 8.7% for the payment received in June 2013 for Federal fiscal year 2013, which ended September 30, 2013. The Federal subsidy payable to the Authority with respect to its Build America Bonds for Federal fiscal year 2014 was reduced by approximately 7.2%. The Federal subsidy payable to the Authority with respect to its Build America Bonds for Federal fiscal year 2015 was reduced by approximately 7.3%. The Federal subsidy payable to the Authority with respect to its Build America Bonds for Federal fiscal year 2016 was reduced by approximately 6.8%. The Federal subsidy payable to the Authority with respect to its Build America Bonds for Federal fiscal year 2017 has been reduced by approximately 6.9% from the amounts anticipated at the time the Build America Bonds were issued. There can be no assurance that additional sequestration measures will not be enacted which will further reduce the amount of the subsidy the Authority receives on its Build America Bonds. The reduction in the amount of the Federal subsidy the Authority received and any future reduction in subsidy will require the Authority to use other funds to offset the loss of this subsidy.

### **Other Factors**

Additional factors which may affect the financial condition of the Authority and the future operation of the Turnpike System include the following:

- Increased and/or unanticipated costs of operating the Turnpike System;
- Work stoppage, slowdown or action by unionized Authority employees;
- More and expanded mass transit systems;
- Complete or partial destruction or temporary closure of the Turnpike System for extended periods of time;
- Increased pension costs, unfunded healthcare and other non-pension postemployment benefits; and
- The potential for future Authority payments for non-Turnpike System purposes. See “SECURITY FOR THE BONDS – Potential Future Authority Payments for Non-Turnpike System Purposes” herein.

## **RATINGS**

Moody's Investors Services, Inc. ("Moody's") has assigned a rating of "A2" to the Series 2017 A Bonds. S&P Global Ratings, acting through Standard & Poor's Financial Services LLC ("S&P"), has assigned a rating of "A+" to the Series 2017 A Bonds. Fitch Ratings ("Fitch") has assigned a rating of "A" to the Series 2017 A Bonds.

Any desired explanation of the significance of such ratings should be obtained from Moody's, S&P and Fitch, respectively. Certain information and materials, including information and materials not included in this Official Statement, were furnished by the Authority to Moody's, S&P and Fitch. Generally, Moody's, S&P and Fitch base their respective ratings on the information and materials so furnished and on their respective investigations, studies and assumptions.

There is no assurance that a particular rating will be maintained for any given period of time or that it will not be lowered, suspended or withdrawn entirely if, in the judgment of Moody's, S&P or Fitch, as the case may be, circumstances so warrant. Any such change in or withdrawal of such rating could have an adverse effect on the market price or the marketability of the Series 2017 A Bonds.

## **UNDERWRITING**

Goldman, Sachs & Co., as representative, on behalf of itself and the other Underwriters listed on the cover page hereof (the "Underwriters"), has agreed, subject to certain conditions, to purchase all, but not less than all, of the Series 2017 A Bonds from the Authority at a purchase price of \$686,585,871.72 (which represents the principal amount of the Series 2017 A Bonds of \$600,000,000, plus net original issue premium in the amount of \$87,535,068.70, less an Underwriters' discount of \$949,196.98).

The Underwriters will be obligated to purchase all of the Series 2017 A Bonds if any of the Series 2017 A Bonds are purchased. The Series 2017 A Bonds may be offered and sold to certain dealers (including underwriters and other dealers depositing such Series 2017 A Bonds into investment trusts) at yields higher/prices lower than the public offering yields/prices set forth on the inside front cover page of this Official Statement, and such public offering yields/prices may be changed from time to time by the Underwriters.

The following two paragraphs have been furnished by the Underwriters for inclusion in this Official Statement. The Authority does not guarantee the accuracy or completeness of the information contained in such paragraphs and such information is not to be construed as a representation of the Authority.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, advisory, investment management, principal investment, hedging, financing and brokerage activities. Certain of the Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various investment banking services for the Authority, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and

short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the Authority.

The following paragraph has been furnished by J.P. Morgan Securities LLC for inclusion in this Official Statement. The Authority does not guarantee the accuracy or completeness of the information contained in such paragraph and such information is not to be construed as a representation of the Authority.

J.P. Morgan Securities LLC (“JPMS”), one of the Underwriters of the Series 2017A Bonds, has entered into negotiated dealer agreements (each, a “Dealer Agreement”) with each of Charles Schwab & Co., Inc. (“CS&Co.”) and LPL Financial LLC (“LPL”) for the retail distribution of certain municipal securities offerings at the original issue prices. Pursuant to each Dealer Agreement, each of CS&Co. and LPL may purchase Series 2017 A Bonds from JPMS at the original issue price less a negotiated portion of the selling concession applicable to any Series 2017 A Bonds that such firm sells.

## **TAX MATTERS**

### **Federal Income Tax Treatment**

The Internal Revenue Code of 1986, as amended (the “Code”), establishes certain requirements which must be met at the time of, and on a continuing basis subsequent to, the issuance and delivery of the Series 2017 A Bonds in order for the interest thereon to be and remain excluded from gross income for Federal income tax purposes under Section 103 of the Code. Noncompliance with such requirements could cause such interest to be included in gross income for Federal income tax purposes retroactive to the date of issuance of the Series 2017 A Bonds. The Authority has covenanted to comply with the provisions of the Code applicable to the Series 2017 A Bonds, and has covenanted not to take any action or fail to take any action that would cause interest on the Series 2017 A Bonds to lose the exclusion from gross income under Section 103 of the Code.

In the opinion of Wilentz, Goldman & Spitzer, P.A., Bond Counsel, under existing statutes, regulations, rulings and court decisions, and assuming continuing compliance by the Authority with the requirements of the Code described above, interest on the Series 2017 A Bonds is not includable in gross income for Federal income tax purposes pursuant to Section 103 of the Code and is not treated as a preference item under Section 57 of the Code for purposes of calculating the Federal alternative minimum tax imposed on individuals and corporations.

Bond Counsel is also of the opinion that the difference between the stated principal amount of the Series 2017 A Bonds maturing on January 1, 2035 and bearing interest at the rate of 3.50% per annum and maturing on January 1, 2036 (collectively, the “Discount Series 2017 A Bonds”), and their initial offering price to the public (excluding bond houses, brokers or similar persons or organizations acting in the capacity of underwriters or wholesalers), at which price a substantial amount of the Discount Series 2017 A Bonds was sold, constitutes original issue discount which is excluded from gross income for Federal income tax purposes to the same extent as interest on the Discount Series 2017 A Bonds. Further, such original issue discount accrues actuarially on a constant interest rate basis over the term of each Discount Series 2017 A Bond and the basis of each Discount Series 2017 A Bond acquired at such initial offering price by an initial purchaser thereof will be increased by the amount of such accrued original issue discount.

Under Section 171(a)(2) of the Code, no deduction is allowed for the amortizable bond premium (determined in accordance with Section 171 (b) of the Code) on the Series 2017 A Bonds that are initially offered and sold at a premium. Under Section 1016(a)(5) of the Code, however, an adjustment must be

made to the purchaser's basis in such Series 2017 A Bonds to the extent of any amortizable bond premium that is disallowable as a deduction under Section 171(a)(2) of the Code.

### **Additional Federal Income Tax Consequences**

Prospective purchasers of the Series 2017 A Bonds should be aware that ownership of, accrual or receipt of interest on or disposition of tax-exempt obligations, such as the Series 2017 A Bonds, may have additional Federal income tax consequences for certain taxpayers, including, without limitation, taxpayers eligible for the earned income credit, recipients of certain Social Security and certain Railroad Retirement benefits, taxpayers that may be deemed to have incurred or continued indebtedness to purchase or carry tax-exempt obligations, financial institutions, property and casualty insurance companies, foreign corporations and certain S corporations. Prospective purchasers of the Series 2017 A Bonds should consult with their tax advisors with respect to the need to furnish certain taxpayer information in order to avoid backup withholding.

### **State Taxation**

In the opinion of Bond Counsel, under existing laws of the State of New Jersey, interest on the Series 2017 A Bonds and any gain on the sale thereof are not includible in gross income under the New Jersey Gross Income Tax Act.

### **Prospective Tax Law Changes**

Federal, state or local legislation, administrative pronouncements or court decisions may affect the Federal and state tax-exempt status of interest on the Series 2017 A Bonds, gain from the sale or other disposition of the Series 2017 A Bonds, the market value of the Series 2017 A Bonds or the marketability of the Series 2017 A Bonds. The effect of any legislation, administrative pronouncements or court decisions cannot be predicted. Prospective purchasers of the Series 2017 A Bonds should consult with their own tax advisors regarding such matters.

### **Other Tax Consequences**

Except as described above, Bond Counsel expresses no opinion with respect to any Federal, state, local or foreign tax consequences of ownership of the Series 2017 A Bonds. Bond Counsel renders its opinion under existing statutes, regulations, rulings and court decisions as of the date of issuance of the Series 2017 A Bonds and assumes no obligation to update its opinion after such date of issuance to reflect any future action, fact, circumstance, change in law or interpretation, or otherwise. Bond Counsel expresses no opinion as to the effect, if any, on the tax status of the interest on the Series 2017 A Bonds paid or to be paid as a result of any action hereafter taken or not taken in reliance upon an opinion of other counsel.

**ALL POTENTIAL PURCHASERS OF THE SERIES 2017 A BONDS SHOULD CONSULT WITH THEIR TAX ADVISORS WITH RESPECT TO THE FEDERAL, STATE, LOCAL OR FOREIGN TAX CONSEQUENCES (INCLUDING, BUT NOT LIMITED TO, THOSE DESCRIBED ABOVE) OF THE OWNERSHIP OF THE SERIES 2017 A BONDS.**

See Appendix E to this Official Statement for the complete text of the proposed form of Bond Counsel's opinion with respect to the Series 2017 A Bonds.

## **LITIGATION**

There is no litigation pending or, to the knowledge of the Authority, threatened, which (i) questions the official existence of the Authority or the power of the Authority to collect and pledge revenues in accordance with the terms of the Resolution to pay the Series 2017 A Bonds or to establish and adjust tolls, or (ii) seeks to restrain or enjoin the issuance of the Series 2017 A Bonds or to question or affect the validity of the Series 2017 A Bonds or the proceedings of the Authority under which they are to be issued. In addition to commitments in the normal course of business (which includes investigation and remediation of existing and projected action level environmental conditions), the Authority is contingently liable under pending lawsuits and claims, relating principally to construction programs and personal injury claims, in which the Authority is named a defendant. The Authority believes the aggregate liability of the Authority under such actions, if adversely determined, would not materially adversely affect the financial position of the Authority and sufficient funds are expected to be available to satisfy any payments required in connection therewith.

The Authority is defending several lawsuits arising from operations of the New Jersey State Police (the “State Police”) assigned to provide police services on the Turnpike and the Parkway pursuant to the Authority’s contract with the State Police. The contract includes an indemnification provision requiring the Authority to defend and indemnify State troopers individually, as well as the State Police and the State, against claims related to their conduct in the course of their duties. The Authority, under the indemnification provisions of the contract, may be responsible for a State trooper’s liability for negligent acts, but not for intentional wrongful acts or acts beyond the scope of such trooper’s employment. The Authority believes the aggregate liability of the Authority under such actions, if adversely determined, would not materially adversely affect the financial position of the Authority and sufficient funds are expected to be available to satisfy any payments required in connection therewith.

Please see “THE AUTHORITY – Environmental Matters” herein for a discussion of certain litigation involving the Authority and the potential costs and/or liabilities of the Authority associated therewith.

## **STATE NOT LIABLE**

THE SERIES 2017 A BONDS ARE REVENUE OBLIGATIONS OF THE AUTHORITY. THE SERIES 2017 A BONDS ARE NOT A DEBT OR LIABILITY OF THE STATE OR OF ANY POLITICAL SUBDIVISION THEREOF (OTHER THAN THE AUTHORITY) AND NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE STATE OR OF ANY POLITICAL SUBDIVISION THEREOF IS PLEDGED TO THE PAYMENT OF THE SERIES 2017 A BONDS. THE AUTHORITY HAS NO TAXING POWER.

## **COVENANT OF THE STATE**

In the Act, the State pledges to and agrees with the holders of bonds of the Authority (including the holders of all Bonds issued under the Resolution) that it will not limit or restrict the rights thereby vested in the Authority to maintain, construct, reconstruct, and operate any project as defined therein, or to establish and collect such charges and tolls as may be convenient or necessary to produce sufficient revenue to meet the expenses of maintenance and operation thereof and to fulfill the terms of any agreements made with the bondholders or in any way impair their rights or remedies until all bonds issued by the Authority under the Act, together with interest thereon, are fully paid and discharged.

## **CONTINUING DISCLOSURE**

In accordance with the requirements of Rule 15c2-12 (the “Rule”) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended, the Authority will enter into an agreement with the Co-Trustees (the “Continuing Disclosure Agreement”) pursuant to which the Authority will covenant for the benefit of the Holders of the Series 2017 A Bonds to annually provide or cause to be provided to the Municipal Securities Rulemaking Board, through the EMMA system, certain financial and operating data relating to the Authority. Pursuant to the Continuing Disclosure Agreement, the Authority will agree to provide, by no later than May 1 of each year during which any of the Series 2017 A Bonds remain Outstanding, such annual financial and operating data prepared for the respective fiscal year of the Authority ending the immediately preceding December 31 (or if the fiscal year of the Authority shall end on any date other than December 31, the Authority shall provide such annual financial and operating data not later than the first day of the fifth month next following the end of such other fiscal year). The Authority will also covenant in the Continuing Disclosure Agreement to provide notices of the occurrence of certain enumerated events. The form of the Continuing Disclosure Agreement is included in APPENDIX F - “FORM OF CONTINUING DISCLOSURE AGREEMENT” attached hereto.

The Underwriters’ obligations to purchase and accept delivery of the Series 2017 A Bonds is conditioned upon the Authority entering into the Continuing Disclosure Agreement at or prior to the delivery of the Series 2017 A Bonds.

A failure by the Authority to comply with the provisions of the Continuing Disclosure Agreement will not constitute an Event of Default under the Resolution, and the Holders and Beneficial Owners of the Series 2017 A Bonds are limited to the remedies set forth in the Continuing Disclosure Agreement. However, failure by the Authority to comply with the Continuing Disclosure Agreement must be reported in accordance with the Rule and must be considered by any broker or dealer before recommending the purchase or sale of Series 2017 A Bonds in the secondary market. Consequently, such a failure may adversely affect the transferability and liquidity of the Series 2017 A Bonds and their market price.

The Authority notes the following: For the fiscal year ended December 31, 2011, the Authority’s annual report containing its financial and operating data was due to EMMA on May 1, 2012. The annual report was filed on May 2, 2012. Under the Authority’s existing continuing disclosure agreements, event notices with respect to certain bond rating changes relating to third-party credit enhancement providers were not filed. As of the date hereof, the Authority has filed rating change notices confirming the current ratings of certain third-party credit enhancement providers with EMMA.

The completion of the Authority’s audited financial statements as of and for the year ended December 31, 2016 will not occur until after the date of issuance and delivery of the Series 2017 A Bonds. See “THE AUTHORITY – Pension and OPEB Obligations” herein. Additionally, as permitted by the Authority’s existing continuing disclosure agreements relating to its outstanding Bonds, the Authority anticipates filing draft unaudited financial statements as of and for the year ended December 31, 2016 with EMMA by no later May 1, 2017 (the filing deadline under the Authority’s existing continuing disclosure agreements), and subsequently filing audited financial statements as of and for the year ended December 31, 2016 with EMMA when they become available.

## **CERTAIN LEGAL MATTERS**

All legal matters incident to the authorization, issuance, sale and delivery of the Series 2017 A Bonds are subject to the approval of Wilentz, Goldman & Spitzer, P.A., Woodbridge, New Jersey, Bond Counsel to the Authority, whose approving legal opinion will be delivered with the Series 2017 A Bonds,

substantially in the form attached hereto as Appendix E. Certain legal matters will be passed upon for the Authority by Bruce A. Harris, Esq., General Counsel for the Authority, and for the Underwriters by their counsel, Gibbons P.C., Newark, New Jersey.

## **LEGALITY FOR INVESTMENT**

Under the Act, the Series 2017 A Bonds are securities in which the State and all political subdivisions of the State, their officers, boards, authorities, departments or other agencies, all banks, bankers, savings banks, trust companies, savings and loan associations, investment companies and other persons carrying on a banking business, all insurance companies, insurance associations and other persons carrying on an insurance business, and all administrators, executors, guardians, trustees and other fiduciaries, and all other persons whatsoever who may be authorized to invest in bonds or other obligations of the State, may properly and legally invest any funds, including capital belonging to them or within their control; and the Series 2017 A Bonds are securities which may properly and legally be deposited with and received by any State or municipal officers or agency of the State for any purpose for which the deposit of bonds or other obligations of the State may be authorized by law.

## **FINANCIAL ADVISOR**

Hilltop Securities is employed as Financial Advisor to the Authority in connection with the issuance of the Series 2017 A Bonds (the “Financial Advisor”). The Financial Advisor's fee for services rendered with respect to the sale of the Series 2017 A Bonds is contingent upon the issuance and delivery of the Series 2017 A Bonds. Hilltop Securities, in its capacity as Financial Advisor, does not assume any responsibility for the information, covenants and representations contained in any of the legal documents with respect to the Federal income tax status of the Series 2017 A Bonds, or the possible impact of any present, pending or future actions taken by any legislative or judicial bodies.

The Financial Advisor to the Authority has provided the following sentence for inclusion in this Official Statement: The Financial Advisor has reviewed the information in this Official Statement in accordance with, and as part of, its responsibilities to the Authority and, as applicable, to investors under the Federal securities laws, as applied to the facts and circumstances of this transaction, but the Financial Advisor does not guarantee the accuracy or completeness of such information.

## **FIDUCIARIES**

The Bank of New York Mellon, Woodland Park, New Jersey and U.S. Bank National Association, Morristown, New Jersey serve as Co-Trustees under the Resolution. The Bank of New York Mellon serves as the Trustee, Paying Agent and Registrar for the Series 2017 A Bonds. The duties of U.S. Bank National Association are limited to administration of certain investments in the Debt Reserve Fund and certain other Authority funds.

## **INDEPENDENT AUDITORS**

The financial statements of the Authority as of and for the years ended December 31, 2015 and 2014, included in Appendix A-2 to this Official Statement, have been audited by KPMG LLP, independent auditors, as stated in their report which appears therein.



## **MISCELLANEOUS**

The information contained herein has been obtained from the Authority and other sources which the Authority believes to be reliable. There is no guarantee that any of the assumptions or estimates contained herein will be realized.

The references herein to the Act, the Resolution and the Series 2017 A Bonds are brief outlines of certain provisions thereof. Such outlines do not purport to be complete and accordingly, are qualified by reference to the Act, the Resolution and the Series 2017 A Bonds and are subject to the full texts thereof. The respective reports of the Traffic Engineer and of the Consulting Engineer have been approved by said engineers and consultants but do not purport to be complete in all respects, and, accordingly, are qualified by reference to the 2017 Draw Down Letter, the 2015 Draw Down Letter and Report of the Traffic Engineer in Appendix B and to the Report of the Consulting Engineer in Appendix C, respectively, and are subject to the full texts thereof.

The authorization, agreements and covenants of the Authority are set forth in the Resolution and neither this Official Statement nor any advertisement of the Series 2017 A Bonds is to be construed as a contract with the holders of the Series 2017 A 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.

## **NEW JERSEY TURNPIKE AUTHORITY**

By: /s/ Joseph W. Mrozek  
JOSEPH W. MROZEK  
Executive Director

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## **APPENDIX A-1**

### **SELECTED UNAUDITED FINANCIAL INFORMATION OF THE AUTHORITY FOR THE YEAR ENDED DECEMBER 31, 2016**

All of the financial information of the Authority as of and for the year ended December 31, 2016 contained in this Appendix A-1 is unaudited as of the date of this Official Statement and is expected to change upon the completion of the audit of the financial statements of the Authority as of and for the year ended December 31, 2016, which will not occur until after the date of issuance and delivery of the Series 2017 A Bonds. Additionally, as permitted by the Authority's existing continuing disclosure agreements relating to its outstanding Bonds, the Authority anticipates filing draft unaudited financial statements as of and for the year ended December 31, 2016 with the Electronic Municipal Market Access (EMMA) system of the Municipal Securities Rulemaking Board by no later than May 1, 2017 (the filing deadline under the Authority's existing continuing disclosure agreements), and subsequently filing audited financial statements as of and for the year ended December 31, 2016 with EMMA when they become available. As of the date of the Official Statement, the Authority has not received the necessary information from the Public Employees Retirement System (PERS) of the State of New Jersey to report its proportionate share of the PERS net pension liability, as well as the related deferred inflows and outflows of resources and expenses, as of and for the year ended December 31, 2016. The audit of the financial statements of the Authority as of and for the year ended December 31, 2016 cannot be completed until after such information is received. See "THE AUTHORITY – Pension and OPEB Obligations" section of this Official Statement.

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**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Net Position – Bond Resolution Basis (Unaudited)

December 31, 2016

(With summarized comparative financial information as of December 31, 2015)

(In thousands)

Assets	Revenue	Construction	Maintenance reserve	Special project reserve	General reserve	Charges	Debt service	Debt reserve	Total bond resolution	Garden State Arts Foundation	Adjustments(2)	Total 2016 Financials	Total 2015 Financials
Current assets:													
Cash	\$ 170,150	—	4,084	11,815	15,456	—	—	—	201,505	800	—	202,305	175,889
Restricted cash	—	117,194	—	—	—	—	140	—	117,334	—	—	117,334	161,231
Investments (1)	245,109	—	39,780	55,980	333,137	—	—	—	674,006	—	—	674,006	591,133
Restricted investments	—	—	—	—	—	63	466,730	151,080	617,873	—	—	617,873	489,802
Receivables, net of allowance	73,550	—	—	—	181	—	—	—	73,731	5	—	73,736	82,289
Inventory	22,692	—	—	—	—	—	—	—	22,692	—	—	22,692	20,105
Due from State of New Jersey	—	—	—	—	448	—	—	—	448	—	—	448	560
Restricted deposits	2,422	3,698	—	—	24,069	—	—	—	30,189	—	—	30,189	27,160
Prepaid expenses	4,650	—	—	—	—	—	—	—	4,650	—	—	4,650	4,077
Interfund	(150,763)	11,032	618	(315)	142,458	(61)	(1,080)	(1,889)	—	—	—	—	—
Total current assets	367,810	131,924	44,482	67,480	515,749	2	465,790	149,191	1,742,428	805	—	1,743,233	1,552,246
Noncurrent assets:													
Restricted investments	—	108,094	—	—	—	—	—	440,134	548,228	—	(79,937)	468,291	1,190,230
Capital assets, net of accumulated depreciation	—	10,833,892	376,978	79,088	150,048	—	—	—	11,440,006	—	15,719	11,455,725	10,801,091
Total noncurrent assets	—	10,941,986	376,978	79,088	150,048	—	—	440,134	11,988,234	—	(64,218)	11,924,016	11,991,321
Total assets	\$ 367,810	11,073,910	421,460	146,568	665,797	2	465,790	589,325	13,730,662	805	(64,218)	13,667,249	13,543,567
<b>Deferred Outflows</b>													
Deferred outflows:													
Accumulated decrease in fair value of hedging derivatives	\$ —	—	—	—	—	—	—	—	—	—	—	—	4,807
Deferred amount on refunding	—	45,229	—	—	—	—	—	—	45,229	—	87,002	132,231	149,697
Deferred amount relating to pensions	—	—	—	—	—	—	—	—	65,426	—	65,426	65,426	65,426
Total deferred outflows	\$ —	45,229	—	—	—	—	—	—	45,229	—	152,428	197,657	219,930
<b>Liabilities</b>													
Current liabilities:													
Accounts payable and accrued expenses	\$ 65,770	64,243	6,855	4,682	5,845	—	—	—	147,395	7	24,482	171,884	187,261
Funds held in trust	210,851	25,791	1,427	1,202	449	—	—	—	239,720	—	—	239,720	240,202
Due to State of New Jersey	2,758	—	—	—	—	—	—	—	2,758	—	—	2,758	2,683
Accrued interest payable	—	—	—	—	—	—	268,050	—	268,050	—	—	268,050	260,102
Unearned revenue	4,705	—	—	—	25,761	—	—	—	30,466	—	—	30,466	42,347
Current portion of bonds payable	—	197,740	—	—	—	—	—	—	197,740	—	—	197,740	142,115
Current portion of hybrid instrument borrowing	—	—	—	—	—	—	—	—	—	—	21,546	21,546	19,012
Current portion of other long-term liabilities	—	—	—	—	100	—	—	—	100	—	6,109	6,209	9,457
Total current liabilities	284,084	287,774	8,282	5,884	32,155	—	268,050	—	886,229	7	52,137	938,373	903,179
Noncurrent liabilities:													
Bonds payable, net	—	10,873,381	—	—	—	—	—	—	10,873,381	—	—	10,873,381	11,109,048
Hybrid instrument borrowing	—	—	—	—	—	—	—	—	—	—	67,756	67,756	92,514
Other long-term obligations	30,850	—	—	—	24,107	—	—	—	54,957	—	65,711	120,668	135,733
Other postemployment benefit liability	—	—	—	—	73,825	—	—	—	73,825	—	358,720	432,545	375,864
Interest rate swaps liabilities	—	—	—	—	—	—	—	—	—	—	29,190	29,190	40,199
Net pension liability	—	—	—	—	—	—	—	—	—	—	435,015	435,015	435,015
Total noncurrent liabilities	30,850	10,873,381	—	—	97,932	—	—	—	11,002,163	—	956,392	11,958,555	12,188,373
Total liabilities	\$ 314,934	11,161,155	8,282	5,884	130,087	—	268,050	—	11,888,392	7	1,008,529	12,896,928	13,091,552
<b>Deferred Inflows</b>													
Deferred inflows:													
Accumulated increase in fair value of hedging derivatives	\$ —	—	—	—	—	—	—	—	—	—	2,035	2,035	—
Deferred amount relating to pensions	—	—	—	—	—	—	—	—	—	—	13,655	13,655	13,655
Total deferred inflows	\$ —	—	—	—	—	—	—	—	—	—	15,690	15,690	13,655
<b>Net Position</b>													
Net position:													
Net investment in capital assets	\$ —	(42,016)	376,978	79,088	150,048	—	—	589,325	1,153,423	—	(89,302)	1,064,121	866,813
Restricted under trust agreements	—	—	—	—	24,069	2	197,740	—	221,811	—	—	221,811	164,511
Unrestricted	52,876	—	36,200	61,596	361,593	—	—	—	512,265	798	(846,707)	(333,644)	(373,034)
Total net position	\$ 52,876	(42,016)	413,178	140,684	535,710	2	197,740	589,325	1,887,499	798	(936,009)	952,288	658,290

(1) Included in investments above at December 31, 2016 is \$32,288 the Authority has designated as reserved for national toll interoperability requirements under Federal Law P.L. 112-131, the Moving Ahead for Progress in the 21st Century Act (Map-21) (\$10,500), reconstruction of the Grover Cleveland Service Area (\$20,000), and emergency maintenance work (\$1,788). In 2016 the Grover Cleveland Service Area project was completed, resulting in a reduction in investments by \$5,075.

(2) The 2016 adjustments column does not include the necessary adjustments that are required by GASB Statement No. 68 in order for the Authority's pension information to be presented in accordance with generally accepted accounting principles in the United States, as the information was not available as of the date of the Official Statement.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Revenues, Expenses, and Changes in Net Position – Bond Resolution Basis (Unaudited)

Year ended December 31, 2016

(With summarized comparative financial information for the year ended December 31, 2015)

(In thousands)

	Revenue	Construction	Maintenance reserve	Special project reserve	General reserve	Charges	Debt service	Debt reserve	Total bond resolution	Garden State Arts Foundation	Adjustments(1)	Total 2016 Financials	Total 2015 Financials
Operating revenues:													
Toll revenue	\$ 1,570,662	—	—	—	—	—	—	—	1,570,662	—	—	1,570,662	1,523,133
E-ZPass fees	62,579	—	—	—	—	—	—	—	62,579	—	—	62,579	56,262
Concession revenue	38,192	—	—	—	—	—	—	—	38,192	—	—	38,192	38,993
Miscellaneous revenue	17,293	—	—	—	—	—	—	—	17,293	627	—	17,920	13,635
Total operating revenues	1,688,726	—	—	—	—	—	—	—	1,688,726	627	—	1,689,353	1,632,023
Operating expenses:													
Maintenance of roadway, buildings and equipment	185,361	—	7,792	9,616	18,304	—	—	—	221,073	—	17,412	238,485	268,001
Toll collection	160,485	—	—	328	3,059	—	—	—	163,872	—	11,315	175,187	172,624
State police and traffic control	79,799	—	—	795	763	—	—	—	81,357	—	1,918	83,275	82,007
Technology	28,755	—	—	4,323	1,286	—	—	—	34,364	—	3,949	38,313	36,404
General administrative costs	38,825	—	—	26	4,232	—	—	—	43,083	571	2,576	46,230	50,514
Depreciation	—	252,256	27,737	8,652	12,475	—	—	—	301,120	—	—	301,120	316,377
Total operating expenses	493,225	252,256	35,529	23,740	40,119	—	—	—	844,869	571	37,170	882,610	925,927
Operating income (loss)	1,195,501	(252,256)	(35,529)	(23,740)	(40,119)	—	—	—	843,857	56	(37,170)	806,743	706,096
Nonoperating revenues (expenses):													
Build America Bonds subsidy	76,071	—	—	—	—	—	—	—	76,071	—	—	76,071	75,908
Federal and State reimbursements	6,578	2,709	—	—	—	—	—	—	9,287	—	—	9,287	—
Payments to the State of New Jersey	—	—	—	—	(294,000)	—	—	—	(294,000)	—	—	(294,000)	(354,001)
Interest expense, Turnpike Revenue Bonds	—	20,470	—	—	—	—	(575,338)	—	(554,868)	—	235,676	(319,192)	(310,363)
Other bond expenses	—	(573)	—	—	(295)	(175)	—	—	(1,043)	—	—	(1,043)	(2,752)
Loss on disposal of capital assets	—	(46)	—	(118)	—	—	—	—	(164)	—	—	(164)	(248)
Investment income	443	2,514	121	218	1,217	—	1,018	9,759	15,290	5	(3,078)	12,217	2,403
Arts Center	4,079	—	—	—	—	—	—	—	4,079	—	—	4,079	3,632
Total nonoperating revenues (expenses), net	87,171	25,074	121	100	(293,078)	(175)	(574,320)	9,759	(745,348)	5	232,598	(512,745)	(585,421)
Income before interfund transfers	1,282,672	(227,182)	(35,408)	(23,640)	(333,197)	(175)	(574,320)	9,759	98,509	61	195,428	293,998	120,675
Interfund transfers	(1,314,454)	353,809	89,249	38,700	423,696	94	629,945	(9,345)	211,694	—	(211,694)	—	—
Net change in fund balance/change in net position	(31,782)	126,627	53,841	15,060	90,499	(81)	55,625	414	310,203	61	(16,266)	293,998	120,675
Net position (deficit) – beginning of year	84,658	(168,643)	359,337	125,624	445,211	83	142,115	588,911	1,577,296	737	(919,743)	658,290	537,615
Net position (deficit) – end of year	\$ 52,876	(42,016)	413,178	140,684	535,710	2	197,740	589,325	1,887,499	798	(936,009)	952,288	658,290

(1) The 2016 adjustments column does not include the necessary adjustments that are required by GASB Statement No. 68 in order for the Authority's pension information to be presented in accordance with generally accepted accounting principles in the United States, as the information was not available as of the date of the Official Statement.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)  
Schedule of Cash Flows – Bond Resolution Basis (Unaudited)

Year ended December 31, 2016  
(With summarized comparative financial information for the year ended December 31, 2015)

(In thousands)

	Revenue	Construction	Maintenance reserve	Special project reserve	General reserve	Charges	Debt service	Debt reserve	Total bond resolution	Garden State Arts Foundation	Adjustments(1)	Total 2016 Financials	Total 2015 Financials
Cash flows from operating activities:													
Receipts from customers and patrons	\$ 1,684,963	—	—	—	—	—	—	—	1,684,963	621	—	1,685,584	1,618,021
Payments to suppliers	(200,196)	—	(7,792)	(15,400)	(9,251)	—	—	—	(232,639)	(566)	—	(233,205)	(274,264)
Payments to employees	(181,936)	—	—	—	—	—	—	—	(181,936)	—	—	(181,936)	(162,012)
Payments for self insured health benefits claims	(92,536)	—	—	—	—	—	—	—	(92,536)	—	—	(92,536)	(88,620)
Net cash provided by (used in) operating activities	1,210,295	—	(7,792)	(15,400)	(9,251)	—	—	—	1,177,852	55	—	1,177,907	1,093,125
Cash flows from noncapital financing activities:													
Receipts from Federal and State reimbursements	6,578	2,709	—	—	—	—	—	—	9,287	—	—	9,287	—
Payments to State of New Jersey	4,079	—	—	—	(294,000)	—	—	—	(294,000)	—	—	(294,000)	(354,001)
Proceeds from Arts Center	—	—	—	—	—	—	—	—	4,079	—	—	4,079	3,632
Net cash provided by (used in) noncapital financing activities	10,657	2,709	—	—	(294,000)	—	—	—	(280,634)	—	—	(280,634)	(350,369)
Cash flows from capital and related financing activities:													
Proceeds acquired from new capital debt	—	344,312	—	—	—	—	—	—	344,312	—	—	344,312	1,201,708
Purchases and sales of capital assets, net	—	(912,492)	(66,995)	(13,142)	(20,154)	—	—	—	(1,012,783)	—	211,694	(801,089)	(849,657)
Principal paid on capital debt	—	(142,115)	—	—	—	—	—	—	(142,115)	—	—	(142,115)	(164,205)
Principal paid on defeased capital debt	—	(343,686)	—	—	—	—	—	—	(343,686)	—	—	(343,686)	(375,585)
Proceeds from Build America Bonds subsidy	76,071	—	—	—	—	—	—	—	76,071	—	—	76,071	75,908
Interest paid on capital debt	—	(19,342)	—	—	—	—	(567,390)	—	(586,732)	—	—	(586,732)	(588,432)
Payments for bond expenses	—	(573)	—	—	(295)	(175)	—	—	(1,043)	—	—	(1,043)	(2,752)
Interfund Transfers related to capital and related financing activities	(1,304,261)	353,012	88,703	39,048	413,745	155	630,620	(9,328)	211,694	—	(211,694)	—	—
Net cash (used in) provided by capital and related financing activities	(1,228,190)	(720,884)	21,708	25,906	393,296	(20)	63,230	(9,328)	(1,454,282)	—	—	(1,454,282)	(703,015)
Cash flows from investing activities:													
Purchases of investments	(3,121,550)	(757,379)	(257,849)	(368,973)	(3,428,428)	(5,726)	(1,067,279)	(451,079)	(9,458,263)	—	—	(9,458,263)	(8,367,022)
Sales and maturities of investments	3,134,690	1,492,637	242,363	367,400	3,349,624	5,663	939,631	451,079	9,983,087	—	—	9,983,087	8,332,854
Interest received	468	2,846	111	200	1,070	—	675	9,328	14,698	6	—	14,704	41,815
Net cash provided by (used in) investing activities	13,608	738,104	(15,375)	(1,373)	(77,734)	(63)	(126,973)	9,328	539,522	6	—	539,528	7,647
Net increase (decrease) in cash	6,370	19,929	(1,459)	9,133	12,311	(83)	(63,743)	—	(17,542)	61	—	(17,481)	47,388
Cash and restricted cash – beginning of year	163,780	97,265	5,543	2,682	3,145	83	63,883	—	336,381	739	—	337,120	289,732
Cash and restricted cash – end of year	\$ 170,150	117,194	4,084	11,815	15,456	—	140	—	318,839	800	—	319,639	337,120
Reconciliation of operating income (loss) to net cash provided by (used in) operating activities:													
Operating income (loss)	\$ 1,195,501	(252,256)	(35,529)	(23,740)	(40,119)	—	—	—	843,857	56	(37,170)	806,743	706,096
Adjustments to reconcile operating income (loss) to net cash provided by (used in) operating activities:													
Depreciation expense	—	252,256	27,737	8,652	12,475	—	—	—	301,120	—	—	301,120	316,377
Changes in assets and liabilities:													
Receivables	(3,665)	—	—	—	12,335	—	—	—	8,670	(5)	—	8,665	(26,085)
Inventory	(2,587)	—	—	—	—	—	—	—	(2,587)	—	—	(2,587)	370
Prepaid expenses	(573)	—	—	—	—	—	—	—	(573)	—	—	(573)	(135)
Accounts payable and accrued expenses	17,200	—	—	(644)	2,576	—	—	—	19,132	4	—	19,136	2,945
Unearned revenue	(96)	—	—	—	(11,785)	—	—	—	(11,881)	—	—	(11,881)	(8,120)
Other liabilities	4,515	—	—	332	2,317	—	—	—	7,164	—	(3,655)	3,509	36,863
Other postemployment benefit liability	—	—	—	—	13,000	—	—	—	13,000	—	43,681	56,681	55,958
Net pension liability	—	—	—	—	—	—	—	—	—	—	—	—	68,714
Deferred outflows of resources related to pension	—	—	—	—	—	—	—	—	—	—	—	—	(45,575)
Deferred inflows of resources related to pension	—	—	—	—	—	—	—	—	—	—	—	—	(12,722)
Pollution remediation liability	—	—	—	—	(50)	—	—	—	(50)	—	(2,856)	(2,906)	(1,561)
Net cash provided by (used in) operating activities	\$ 1,210,295	—	(7,792)	(15,400)	(9,251)	—	—	—	1,177,852	55	—	1,177,907	1,093,125

(1) The 2016 adjustments column does not include the necessary adjustments that are required by GASB Statement No. 68 in order for the Authority's pension information to be presented in accordance with generally accepted accounting principles in the United States, as the information was not available as of the date of the Official Statement.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)  
Schedule of Net Revenue Requirement (Unaudited)  
Years ended December 31, 2016 and 2015  
(In thousands)

	<u>2016</u>	<u>2015</u>
Test 1:		
Total operating revenues – bond resolution	\$ 1,688,726	1,631,492
Build America Bonds subsidy	76,071	75,908
Federal and State reimbursements	9,287	—
Less Federal and State reimbursement – construction fund	(2,709)	—
Total investment income – bond resolution	15,290	13,972
Less earnings on construction investments	(2,514)	(2,290)
Fair market value adjustments	(414)	(416)
Arts center	4,079	3,632
	<u>1,787,816</u>	<u>1,722,298</u>
Total pledged revenues	1,787,816	1,722,298
Less revenue operating expenses – revenue fund	<u>(493,225)</u>	<u>(503,453)</u>
Net revenue available for debt service	1,294,591	1,218,845
Less net revenue requirements:		
Interest expense – debt service	(575,338)	(519,311)
Principal payment – debt service	(197,740)	(142,115)
Revenue transfer to charges	(94)	(535)
Revenue transfer to maintenance reserve	(89,370)	(87,058)
Revenue transfer to special project reserve	<u>(38,918)</u>	<u>(50,301)</u>
Excess net revenues	<u>\$ 393,131</u>	<u>419,525</u>
Test 2:		
Total operating revenues – bond resolution	\$ 1,688,726	1,631,492
Build America Bonds subsidy	76,071	75,908
Federal and State reimbursements	9,287	—
Less Federal and State reimbursement – construction fund	(2,709)	—
Total investment income – bond resolution	15,290	13,972
Less earnings on construction investments	(2,514)	(2,290)
Fair market value adjustments	(414)	(416)
Arts center	4,079	3,632
	<u>1,787,816</u>	<u>1,722,298</u>
Total pledged revenues	1,787,816	1,722,298
Less revenue operating expenses – revenue fund	<u>(493,225)</u>	<u>(503,453)</u>
Net revenue available for debt service	1,294,591	1,218,845
Less 1.2 times aggregate debt service	<u>(927,694)</u>	<u>(793,711)</u>
Excess net revenues	<u>\$ 366,897</u>	<u>425,134</u>
Debt service coverage ratio	1.67	1.84



**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Investments (Unaudited)

December 31, 2016

(In thousands)

	<u>Interest rate</u>	<u>Maturity</u>	<u>Par value</u>	<u>Carrying value</u>
Revenue:				
Certificate of deposit	1.15%–1.21%	3/24/17–7/28/17	\$ 80,000	80,313
Commercial paper	0.43–0.65	1/5/2017	5,000	5,000
Federal agency note	0.27–0.45	1/5/17–2/17/17	39,775	39,770
U.S. Treasury bill	0.20–0.42	1/5/17–2/16/17	120,043	120,026
			<u>244,818</u>	<u>245,109</u>
Construction:				
Certificate of deposit	0.63%–0.86%	1/4/17–1/18/17	75,000	75,104
Federal agency note	0.35–0.41	1/23/2017	21,000	20,995
U.S. Treasury bill	0.43	2/2/2017	12,000	11,995
			<u>108,000</u>	<u>108,094</u>
Maintenance reserve:				
Commercial paper	0.50%	2/3/2017	2,002	2,001
Federal agency note	0.23–0.47	1/3/17–2/21/17	35,788	35,780
U.S. Treasury bill	0.39	2/16/2017	2,000	1,999
			<u>39,790</u>	<u>39,780</u>
Special project reserve:				
Commercial paper	0.40%–0.80%	1/3/17–2/28/17	32,000	31,981
Federal agency note	0.25–0.43	1/10/17–3/2/17	14,000	13,995
U.S. Treasury bill	0.34–0.50	1/26/17–2/16/17	10,000	10,004
			<u>56,000</u>	<u>55,980</u>
General reserve:				
Commercial paper	0.60%–1.05%	1/13/17–3/10/17	112,000	111,927
Federal agency note	0.32–0.55	1/5/17–6/20/17	187,660	187,466
U.S. Treasury bill	0.25–0.50	1/5/17–3/9/17	33,746	33,744
			<u>333,406</u>	<u>333,137</u>
Charges:				
Federal agency note	0.40%	1/3/2017	63	63
			<u>63</u>	<u>63</u>
Debt service:				
Federal agency note	0.15%–0.60%	1/3/2017	466,737	466,730
			<u>466,737</u>	<u>466,730</u>
Debt reserve:				
Certificate of deposit	1.11%–2.00%	11/10/17 – 12/15/20	334,754	335,361
Commercial paper	1.44	1/1/2017	149,999	151,079
Federal agency note	1.05	4/25/2018	104,919	104,774
			<u>589,672</u>	<u>591,214</u>
Total			\$ <u>1,838,486</u>	<u>1,840,107</u>

Above is the detail of investments listed on the Schedule of Net Position – Bond Resolution Basis

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)  
Schedule of Investments By Hierarchy, Maturity and Ratings (Unaudited)  
Year ended December 31, 2016  
(In thousands)

The Authority's investments as of December 31, 2016 are summarized in the following tables by their fair value hierarchy:

December 31, 2016			
	Total	Level 1	Level 2
Investments measured at fair value:			
Certificates of deposit	\$ 490,778	—	490,778
Commercial paper	301,988	—	301,988
Federal agency notes	869,573	158,300	711,273
U.S. Treasury bills	177,768	177,768	—
Derivative instrument	(79,937)	—	(79,937)
Total investments	\$ 1,760,170	336,068	1,424,102

As of December 31, 2016 the Authority had the following investments by their maturity date range:

Investment type	December 31, 2016			
	Fair value	Investment maturities		
		Less than 1 year	1–5 years	Over 5 years
Investments:				
Commercial paper	\$ 150,909	150,909	—	—
Certificates of deposit	80,313	80,313	—	—
Federal agency notes	277,011	277,011	—	—
U.S. Treasury bills	165,773	165,773	—	—
Total investments	674,006	674,006	—	—
Restricted investments held by trustee:				
Commercial paper	151,079	151,079	—	—
Certificates of deposit	335,361	—	29,282	306,079
Federal agency notes	571,567	466,793	—	104,774
Total restricted investments held by trustee	1,058,007	617,872	29,282	410,853
Restricted investments held by Authority:				
Certificates of deposit	75,104	75,104	—	—
Federal agency notes	20,995	20,995	—	—
U.S. Treasury bills	11,995	11,995	—	—
Total restricted investments held by Authority	108,094	108,094	—	—
Restricted investments:				
Derivative instruments	(79,937)	—	—	(79,937)
Total investments	\$ 1,760,170	1,399,972	29,282	330,916

Note: Table includes \$3,112 of accrued interest, and \$0.4 of unamortized premium and discount on investments for the year ended December 31, 2016. Federal agency notes include \$347 in unrealized loss for the year ended December 31, 2016.

- (1) Included in investments above at December 31, 2016 is \$32,288 the Authority has designated as reserved for national toll interoperability requirements under Federal Law P.L. 112-131, the Moving Ahead for Progress in the 21st Century Act (Map-21) (\$10,500), the \$7 billion capital program (\$20,000) and emergency maintenance work (\$1,788). In 2016 the Grover Cleveland Service Area project was completed, resulting in a reduction in investments by \$5,075.

As of December 31, 2016 the Authority's investment quality ratings as rated by Standard & Poor's and Moody's were as follows:

	December 31, 2016		
	Standard and Poor's/Moody's ratings		
	A-1+/P-1	AA+/Aaa	Totals
Commercial paper	\$ 301,988	—	301,988
Federal agency notes	764,800	104,773	869,573
U.S. Treasury bills	177,768	—	177,768
	\$ 1,244,556	104,773	1,349,329

More than 5% of the Authority's investments are concentrated in the following issuers as of December 31, 2016 :

Issuer	December 31 2016
U.S. Bank	11.6 %
Federal National Mortgage Association	6.4
Federal Home Loan Mortgage Corp	10.2
Federal Home Loan Bank	32.8
Toyota Motor Credit Corp.	8.8
U.S. Treasury	10.1
Toronto Dominion Bank N.A.	5.9

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)  
Schedule of Bond Indebtedness (Unaudited)

December 31, 2016

(In thousands)

	<b>Amount outstanding December 31, 2015</b>	<b>Refunded or acquired and canceled in current year</b>	<b>Mandatory redemption/ sinking fund installments</b>	<b>Debt issuance</b>	<b>Amortization of premiums and discounts</b>	<b>Amount outstanding December 31, 2016</b>
Turnpike revenue bonds:						
Series 1991 C	\$ 67,160	—	(67,160)	—	—	—
Series 2000 B-G	400,000	—	—	—	—	400,000
Series 2003 B	70,005	—	(70,005)	—	—	—
Series 2004 B	168,646	(168,646)	—	—	—	—
Series 2004 C-2	132,850	—	—	—	—	132,850
Series 2005 A	173,650	—	—	—	—	173,650
Series 2005 B	32,500	—	—	—	—	32,500
Series 2005 D1-D4	208,735	—	—	—	—	208,735
Series 2009 E	300,000	—	—	—	—	300,000
Series 2009 F	1,375,000	—	—	—	—	1,375,000
Series 2009 G	34,770	—	—	—	—	34,770
Series 2009 H	306,170	—	—	—	—	306,170
Series 2009 I	178,005	—	—	—	—	178,005
Series 2010 A	1,850,000	—	—	—	—	1,850,000
Series 2012 A	141,255	—	—	—	—	141,255
Series 2012 B	804,435	—	—	—	—	804,435
Series 2013 A	1,400,000	—	(4,950)	—	—	1,395,050
Series 2013 B	100,000	—	—	—	—	100,000
Series 2013 C	271,000	—	—	—	—	271,000
Series 2013 D	152,650	(75,025)	—	—	—	77,625
Series 2013 E	101,765	(50,015)	—	—	—	51,750
Series 2013 F	90,880	—	—	—	—	90,880
Series 2014 A	1,000,000	—	—	—	—	1,000,000
Series 2014 B-2	50,000	(50,000)	—	—	—	—
Series 2014 B-3	50,000	—	—	—	—	50,000
Series 2014 C	201,860	—	—	—	—	201,860
Series 2015 A	92,500	—	—	—	—	92,500
Series 2015 B	50,000	—	—	—	—	50,000
Series 2015 C	43,750	—	—	—	—	43,750
Series 2015 D	43,750	—	—	—	—	43,750
Series 2015 E	750,000	—	—	—	—	750,000
Series 2015F	72,350	—	—	—	—	72,350
Series 2015G	25,000	—	—	—	—	25,000
Series 2015H	48,235	—	—	—	—	48,235
Series 2016A	—	—	—	149,995	—	149,995
Series 2016B	—	—	—	75,025	—	75,025
Series 2016C	—	—	—	50,015	—	50,015
Series 2016D	—	—	—	50,000	—	50,000
	<u>10,786,921</u>	<u>(343,686)</u>	<u>(142,115)</u>	<u>325,035</u>	<u>—</u>	<u>10,626,155</u>
Premiums and discounts, net	464,242	—	—	25,411	(44,687)	444,966
	<u>\$ 11,251,163</u>	<u>(343,686)</u>	<u>(142,115)</u>	<u>350,446</u>	<u>(44,687)</u>	<u>11,071,121</u>

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Interest Expenses (Unaudited)

Year ended December 31, 2016

(In thousands)

	<b>2016</b>
Turnpike Revenue Bonds, Series 1991C	\$ —
Turnpike Revenue Bonds, Series 2000B – G	17,098
Turnpike Revenue Bonds, Series 2003B	—
Turnpike Revenue Bonds, Series 2004B	1,447
Turnpike Revenue Bonds, Series 2004C	7,307
Turnpike Revenue Bonds, Series 2005A	9,117
Turnpike Revenue Bonds, Series 2005B	1,563
Turnpike Revenue Bonds, Series 2005D	10,959
Turnpike Revenue Bonds, Series 2009A	—
Turnpike Revenue Bonds, Series 2009B	—
Turnpike Revenue Bonds, Series 2009E	15,750
Turnpike Revenue Bonds, Series 2009F	101,943
Turnpike Revenue Bonds, Series 2009G	1,739
Turnpike Revenue Bonds, Series 2009H	15,193
Turnpike Revenue Bonds, Series 2009I	8,900
Turnpike Revenue Bonds, Series 2010A	131,387
Turnpike Revenue Bonds, Series 2012A	6,894
Turnpike Revenue Bonds, Series 2012B	39,772
Turnpike Revenue Bonds, Series 2012G	—
Turnpike Revenue Bonds, Series 2013A	67,821
Turnpike Revenue Bonds, Series 2013B–F	37,214
Turnpike Revenue Bonds, Series 2013G	—
Turnpike Revenue Bonds, Series 2014A(1)	48,890
Turnpike Revenue Bonds, Series 2014B	3,787
Turnpike Revenue Bonds, Series 2014C	10,093
Turnpike Revenue Bonds, Series 2015A	3,340
Turnpike Revenue Bonds, Series 2015B	1,893
Turnpike Revenue Bonds, Series 2015C	1,728
Turnpike Revenue Bonds, Series 2015D	1,729
Turnpike Revenue Bonds, Series 2015E	36,413
Turnpike Revenue Bonds, Series 2015F	2,911
Turnpike Revenue Bonds, Series 2015G	976
Turnpike Revenue Bonds, Series 2015H	1,939
Turnpike Revenue Bonds, Series 2016A	6,683
Turnpike Revenue Bonds, Series 2016B	84
Turnpike Revenue Bonds, Series 2016C	55
Turnpike Revenue Bonds, Series 2016D	56
	<hr/> 594,681
Less amortization of bond premium and discount	(25,587)
Less GASB Statement No. 53 interest expense adjustment (2)	(35,693)
Less interest expense capitalized to projects	(214,209)
Net interest expense	\$ <u><u>319,192</u></u>

(1) Includes \$19,199 in capitalized interest expense paid from bond proceeds in 2016.

(2) For the Series 2000B-G, 2009A-B, 2012G 2013B-D, 2013G, 2015A-D and 2015F Bonds

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)  
**NEW JERSEY TURNPIKE**

Schedule of Toll Revenue (Unaudited)

Years ended December 31, 2016 and 2015

(In thousands)

Class	Description	2016		2015	
		Toll revenue	Number of vehicles	Toll revenue	Number of vehicles
1	Passenger car, motorcycle, taxi or hearse, light truck	\$ 789,477	223,634	756,561	215,358
2	Vehicles having two axles other than type described under Class 1	63,453	8,489	61,429	8,233
3	Vehicle (vehicles), single or in combination, having three axles	28,942	3,532	27,479	3,374
4	Vehicle (vehicles), single or in combination, having four axles	34,626	2,763	33,465	2,679
5	Vehicle (vehicles), single or in combination, having five axles	230,812	15,034	227,615	14,909
6	Vehicle (vehicles), single or in combination, having six or more axles	6,671	352	6,392	335
7	Buses having two axles	2,224	428	2,156	413
8	Buses having three axles	13,753	1,261	13,849	1,296
	Nonrevenue vehicles	—	1,571	—	1,558
		1,169,958	257,064	1,128,946	248,155
	Nonrevenue vehicles	—	(1,571)	—	(1,558)
	Toll adjustments and discounts	(6,090)	—	(5,106)	—
	Net violations	(19,310)	—	(17,572)	—
		<u>\$ 1,144,558</u>	<u>255,493</u>	<u>1,106,268</u>	<u>246,597</u>

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)  
**GARDEN STATE PARKWAY**

Schedule of Toll Revenue (Unaudited)

Years ended December 31, 2016 and 2015

(In thousands)

Class	Description	2016		2015	
		Toll revenue	Number of vehicles	Toll revenue	Number of vehicles
1	Passenger car, motorcycle, taxi or hearse, light truck	\$ 416,990	384,586	407,254	374,092
2	Vehicles having two axles other than type described under Class 1	2,202	925	2,674	1,124
3	Vehicle (vehicles), single or in combination, having three axles	3,376	1,106	3,476	1,142
4	Vehicle (vehicles), single or in combination, having four axles	3,502	817	3,511	815
5	Vehicle (vehicles), single or in combination, having five axles	2,692	564	2,584	532
6	Vehicle (vehicles), single or in combination, having six or more axles	130	22	138	25
7	Buses having two axles	1,638	634	1,589	605
8	Buses having three axles	2,588	956	2,589	949
	Nonrevenue vehicles	—	1,458	—	1,476
		433,118	391,068	423,815	380,760
	Nonrevenue vehicles	—	(1,458)	—	(1,476)
	Toll adjustments and discounts	(505)	—	(474)	—
	Net violations	(6,509)	—	(6,476)	—
		\$ 426,104	389,610	416,865	379,284

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**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Capital Asset Rollforward (Unaudited)

Year ended December 31, 2016

(In thousands)

<b>Classification</b>	<b>December 31, 2015</b>	<b>Additions</b>	<b>Retirements/ transfers</b>	<b>December 31, 2016</b>
Nondepreciable capital assets:				
Land	\$ 824,797	5,979	(164)	830,612
Construction-in-progress	2,521,406	949,939	(2,213,029)	1,258,316
Total nondepreciable capital assets	3,346,203	955,918	(2,213,193)	2,088,928
Depreciable capital assets:				
Roadways	4,578,349	1,090,646	—	5,668,995
Bridges	4,297,766	670,064	—	4,967,830
Buildings	504,279	256,725	—	761,004
Equipment	1,238,656	195,594	—	1,434,250
Total depreciable capital assets	10,619,050	2,213,029	—	12,832,079
Total capital assets	13,965,253	3,168,947	(2,213,193)	14,921,007
Less accumulated depreciation:				
Roadways	(1,366,754)	(120,960)	—	(1,487,714)
Bridges	(1,060,124)	(99,215)	—	(1,159,339)
Buildings	(254,563)	(11,339)	—	(265,902)
Equipment	(482,721)	(69,606)	—	(552,327)
Total accumulated depreciation	(3,164,162)	(301,120)	—	(3,465,282)
Capital assets, net	\$ 10,801,091	2,867,827	(2,213,193)	11,455,725

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Derivative Instruments – Fair Value Balances and Notional Amounts (Unaudited)

Year ended December 31, 2016

(In thousands)

	Changes in fair value for year ended December 31, 2016		Fair value as of December 31, 2016		Notional
	Classification	Amount	Classification	Amount	
Cash flow hedges:					
Pay-fixed, receive-variable interest rate swaps <sup>(1)</sup>	Deferred inflow	\$ 11,009	Interest rate swap liabilities	\$ (29,190)	1,096,000
Investment derivatives:					
Pay-fixed, receive-variable interest rate swaps	Investment gain	13,238	Restricted investments	(79,937)	400,000



**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Derivative Instruments – Terms and Credit Ratings (Unaudited)

Year ended December 31, 2016

(In thousands)

		December 31, 2016					
Type	Objective	Notional amount		Effective date	Maturity date	Terms	Counterparty credit rating
Hedging derivative instruments:							
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013B bonds	\$	100,000	Mar. 14, 2011	Jan. 1, 2018	Pay 5.5728%, receive 75% of 1 month of USD-LIBOR-BBA	A1/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013C1 bonds		121,000	Mar. 14, 2011	Jan. 1, 2018	Pay 5.6346%, receive USD-SIFMA Municipal Swap Index	A1/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013C2 bonds		150,000	Mar. 14, 2011	Jan. 1, 2018	Pay 5.6089%, receive USD-SIFMA Municipal Swap Index	A1/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013D bonds		77,625	May. 21, 2013	Jan. 1, 2024	Pay 3.4486%, receive 73.2% of 1 month of USD-LIBOR-BBA	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013E bonds		51,750	Sep. 1, 2015	Jan. 1, 2024	Pay 3.4486%, receive 63% of 1 month plus 20bp USD-LIBOR-BBA	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2014B3 bonds		50,000	Aug. 4, 2014	Jan. 1, 2024	Pay 3.35%, receive 67% of 1 month USD-LIBOR-BBA	A1/A+/A+
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015A bonds		87,500	Jan. 29, 2015	Jan. 1, 2024	Pay 2.98%, receive 67% of 1 month USD-LIBOR-BBA	A1/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015B bonds		50,000	Feb. 11, 2009	Jan. 1, 2024	Pay 3.331%, receive 75% of 1 month USD-LIBOR-BBA	A1/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015C bonds		43,750	Feb. 11, 2009	Jan. 1, 2024	Pay 3.2488%, receive 67% of 1 month USD-LIBOR-BBA	A1/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015D bonds		43,750	Feb. 11, 2009	Jan. 1, 2024	Pay 3.2525%, receive 67% of 1 month USD-LIBOR-BBA	A1/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015F bonds		72,350	May. 21, 2013	Jan. 1, 2022	Pay 3.4486%, receive until 73.2% of 1 month USD-LIBOR-BBA	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015G bonds		25,000	Sep. 1, 2015	Jan. 1, 2024	Pay 3.35%, receive 67% of 1 month USD-LIBOR-BBA	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015H bonds		48,235	Sep. 1, 2015	Jan. 1, 2022	Pay 3.305%, receive 67% of 1 month USD-LIBOR-BBA	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2016B bonds		75,025	May. 21, 2013	Jan. 1, 2023	Pay 3.4486%, receive 73.2% of 1 month of USD-LIBOR-BBA	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2016C bonds		50,015	Sep. 1, 2015	Jan. 1, 2023	Pay 3.4486%, receive 63% of 1 month plus 20bp USD-LIBOR-BBA	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2016D bonds		50,000	Sep. 1, 2015	Jan. 1, 2024	Pay 3.35%, receive 67% of 1 month USD-LIBOR-BBA	Aa2/AA-/AA
Investment derivative instruments:							
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2000 B-G bonds	\$	240,000	Sep. 1, 2015	Jan. 1, 2030	Pay 4.312%, receive 64.459% of 5-year LIBOR	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2000 B-G bonds		160,000	May. 21, 2013	Jan. 1, 2030	Pay 4.312%, receive 64.459% of 5-year LIBOR	Aa2/AA-/AA

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Hybrid Instruments Borrowings Rollforward (Unaudited)

Year ended December 31, 2016

(In thousands)

	<b>December 31, 2015</b>	<b>Additions</b>	<b>Reductions</b>	<b>December 31, 2016</b>	<b>Current portion</b>
Hybrid instrument borrowings:					
Series 2013 B	\$ 13,601	—	4,511	9,090	4,534
Series 2013 C1	16,594	—	5,506	11,088	5,531
Series 2013 C2	20,588	—	6,830	13,758	6,862
Series 2013D	22,192	—	12,236	9,956	38
Series 2015A	10,654	—	1,048	9,606	866
Series 2015B	6,621	—	655	5,966	718
Series 2015C	5,306	—	177	5,129	620
Series 2015D	5,314	—	177	5,137	620
Series 2015F	10,656	—	38	10,618	1,717
Series 2016B	—	8,954	—	8,954	40
	<u>\$ 111,526</u>	<u>8,954</u>	<u>31,178</u>	<u>89,302</u>	<u>21,546</u>

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Hybrid Instruments Borrowings – Payments of Principal and Interest (Unaudited)

Year ended December 31, 2016

(In thousands)

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
December 31:			
2017	\$ 21,546	531	22,077
2018	24,724	696	25,420
2019	7,810	521	8,331
2020	7,905	426	8,331
2021	8,001	330	8,331
2022–2024	19,316	420	19,736
	<u>\$ 89,302</u>	<u>2,924</u>	<u>92,226</u>

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)  
Schedule of Long Term Liability Rollforward (Unaudited)  
Year ended December 31, 2016  
(In thousands)

	<b>December 31, 2015</b>	<b>Additions</b>	<b>Reductions</b>	<b>December 31, 2016</b>	<b>Current portion</b>
Bonds payable, net	\$ 11,251,163	350,446	(530,488)	11,071,121	197,740
Hybrid instrument borrowing	111,526	8,954	(31,178)	89,302	21,546
Other long-term obligations:					
Pollution remediation liability	28,696	1,106	(4,012)	25,790	2,790
Self-insurance	59,345	23,208	(40,037)	42,516	—
Arbitrage liability	—	12	—	12	—
Reserve for E-ZPass tag swap	21,099	5,500	(6,564)	20,035	—
Other liabilities	2,786	3	(47)	2,742	—
Reserves	14,576	4,491	(1,504)	17,563	—
Compensated absences	18,688	17,776	(18,245)	18,219	3,419
Other postemployment benefits	375,864	56,681	—	432,545	—
Interest rate swap liabilities	40,199	11,961	(22,970)	29,190	—
Net pension liability (1)	435,015	—	—	435,015	—
Total	\$ 12,358,957	480,138	(655,045)	12,184,050	225,495

- (1) The 2016 Net pension liability does not include the necessary adjustments that are required by the GASB No. 68 in order for the Authority's pension information to be presented in accordance with generally accepted accounting principles in the United States, as the information was not available as of the date of the Official Statement.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Other Post Employment Benefits Obligation (Unaudited)

Year ended December 31, 2016

(In thousands)

		<b>2016</b>		
Annual required contribution (ARC)		\$ 100,099		
Interest on net OPEB obligation		12,796		
Adjustment to annual required contribution		<u>(12,713)</u>		
Total annual OPEB cost (AOC)		100,182		
Contributions made		<u>43,501</u>		
Increase in net OPEB obligation		56,681		
Net OPEB obligation, beginning of year		<u>375,864</u>		
Net OPEB obligation, end of year		<u>\$ 432,545</u>		
Year ending		<b>Annual OPEB cost</b>	<b>Percentage of annual OPEB cost contributed*</b>	<b>Net OPEB obligation</b>
December 31, 2016	\$	100,182	43.4 %	\$ 432,545
December 31, 2015		100,182	44.1	375,864
December 31, 2014		75,636	51.0	319,906

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**APPENDIX A-2**

**FINANCIAL STATEMENTS OF THE AUTHORITY  
FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014  
WITH INDEPENDENT AUDITORS' REPORT THEREON**

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# New Jersey Turnpike Authority

*(A Component Unit of the State of New Jersey)*

*Financial Statements*

*December 31, 2015 and 2014*

*(With Independent Auditors' Report Thereon)*

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

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**KPMG LLP**  
New Jersey Headquarters  
51 John F. Kennedy Parkway  
Short Hills, NJ 07078-2702

## **Independent Auditors' Report**

The Commissioners  
New Jersey Turnpike Authority:

### **Report on the Financial Statements**

We have audited the accompanying basic financial statements of the New Jersey Turnpike Authority (the Authority), a component unit of the State of New Jersey, as of and for the years ended December 31, 2015 and 2014, and the related notes to the basic financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

### ***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### ***Auditors' Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Authority, as of December 31, 2015 and 2014, and the respective statements of revenues, expenses, and changes in net position, and cash flows thereof for the years then ended in accordance with U.S. generally accepted accounting principles.



## **Other Matters**

### ***Emphasis of Matter***

As discussed in Note 2(t), during 2015, the Authority implemented Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions* as of January 1, 2014. Concurrently with the implementation of GASB No. 68, the Authority implemented GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date* (GASB No. 71). As a result of adopting this pronouncement, the Authority has restated the beginning net position at January 1, 2014 and the statement of revenues, expenses and change in net position for the year ended December 31, 2014 has also be restated. Our opinion is not modified with respect to this matter.

### ***Required Supplementary Information***

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 3 through 38, the schedule of funding progress – other postemployment benefits plan (schedule 1) on page 90 and Schedule of Proportionate Share, Employer Contributions and Notes (schedule 2) on page 91 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### ***Other Supplemental Information***

Our audits for the year ended December 31, 2015 and 2014 were conducted for the purpose of forming an opinion on the basic financial statements that collectively comprise the Authority's basic financial statements. The supplemental information included on Schedules 3 through 11B as listed in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. This information, except for those schedules and portions of schedules marked "unaudited," on which we express no opinion, has been subjected to the auditing procedures applied in the audits of the basic financial statements for the years ended December 31, 2015 and 2014 and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information included in Schedules 3 through 11B is fairly stated in all material respects, in relation to the basic financial statements as a whole.

**KPMG LLP**

June 28, 2016

The management of the New Jersey Turnpike Authority (the Authority) offers this narrative overview and analysis of the Authority's financial activities for the years ended December 31, 2015 and 2014, which should be read in conjunction with the Authority's financial statements.

### Overview of the Financial Statements

This discussion and analysis is intended to present an overview of the Authority's financial performance for the years ended December 31, 2015 and 2014. The Authority's financial statements are prepared in accordance with Generally Accepted Accounting Principles (GAAP). This section is intended to provide an assessment of how the Authority's financial position has improved or deteriorated and identify the factors that, in management's view, significantly affected the Authority's overall financial position. It may contain opinions, assumptions, or conclusions by the Authority's management that should not be considered a replacement for the financial statements included in this report.

The Statement of Net Position provides information about the nature and amount of investments in resources (assets) and the obligations to Authority creditors (liabilities), as well as the deferred outflows and inflows of resources, with the difference between these amounts reported as net position.

The Statement of Revenues, Expenses, and Changes in Net Position, which accounts for all of the current year's revenues and expenses, measures the success of the Authority's operations over the past year and can be used to determine how the Authority has funded its costs.

The Statement of Cash Flows provides information about the Authority's cash receipts, cash payments, and net changes in cash resulting from operating, investing and financing activities.

The notes to the Financial Statements provide:

- Information that is essential to understanding the basic financial statements, such as the Authority's accounting methods and policies.
- Details of contractual obligations, future commitments and contingencies of the Authority.
- Other events or developing situations that could materially affect the Authority's financial position.

The Required Supplementary Information included in Schedule 1 presents information regarding the Authority's progress in funding its obligation to provide postemployment benefits other than pensions to its employees.

The Required Supplementary Information included in Schedule 2 presents information regarding the Authority's proportionate share, employer contributions and notes related to the State of New Jersey Public Employees' Retirement System (PERS).

The Other Supplementary Information included in Schedules 3 through 11B presents information regarding the Authority's accounting and compliance with its 1991 Turnpike Revenue Bond Resolution, as amended, restated and supplemented (the Resolution), and the Authority's interpretation of such Resolution.

### The Authority's Business

The New Jersey Turnpike Authority (the Authority), is a body corporate and politic created by the New Jersey Turnpike Authority Act of 1948, as amended and supplemented (the Act). The Act authorizes the Authority to construct, maintain, repair, and operate the New Jersey Turnpike (the Turnpike System), to fix and establish tolls for the use of the Turnpike System and to issue Turnpike revenue bonds or notes of the Authority, subject to prior



approval in writing from the Governor and from either or both the State Treasurer and the Director of the Division of Budget and Accounting of the Department of the Treasury, payable solely from tolls and other revenues of the Authority. Under the provisions of the Act, the Turnpike bonds or notes and the interest thereon shall not be deemed to constitute a debt or liability or a pledge of the faith and credit of the State of New Jersey (the State) or any political subdivision thereof. The Act further provides that the powers conferred upon the Governor and the Treasurer of the State described shall be exercised with due regard for the rights of the holders of bonds of the Authority at any time outstanding, and nothing in, or done pursuant to, the Act shall in any way limit, restrict or alter the obligation or powers of the Authority or any representative or officer of the Authority to carry out and perform in every detail each and every covenant, agreement or contract at any time made or entered into by or on behalf of the Authority with respect to its bonds or for the benefit, protection or security of the holders thereof.

On May 27, 2003, the Act was amended. The amendment empowered the Turnpike Authority, effective on the Transfer Date, to assume all powers, rights, obligations and duties of the New Jersey Highway Authority (the Highway Authority), which owned and operated the Garden State Parkway (the Parkway) and PNC Bank Arts Center.

## Highlights

- The Authority was a first time recipient of the Government Finance Officers Association (GFOA) Distinguished Budget Presentation Award for the submission of its first ever 2015 Annual Budget. The GFOA established the Distinguished Budget Presentation Awards Program in 1984 to encourage and assist state and local governments to prepare budget documents of the very highest quality.
- The Authority received the IBTTA (The International Bridge, Tunnel and Turnpike Association) Toll Excellence Award in 2015 in the category of Toll Operations, Maintenance and Engineering. The Authority's winning initiative, "Traffic Permitting and Lane Closure Application," was implemented to efficiently manage the more than 850 weekly lane closure requests the Authority receives.
- The Authority won the 2015 CIO 100 award for demonstrating the innovative use of technology to deliver business value. This prestigious award was granted to the business partnership between the Operations and Integrated Technology Services (ITS) departments that led to the creation of the Advanced Traffic Management Program (ATMP). Receipt of this award places the Authority among the top 100 organizations in the nation who are using technology to deliver true business value.
- The Authority was a first time recipient of the GFAO's Certificate of Achievement for Excellence in Financial Reporting for the submission of its first ever Comprehensive Annual Financial Report (CAFR) for the year ended December 31, 2014. The program was established by the GFOA in 1945 to assist state and local governments in preparing financial reports that evidence the spirit of transparency and full disclosure.
- The Grover Cleveland Service Area, which had been closed since hurricane Sandy in October 2012, was reopened in November 2015. The new and improved service area is being touted as a potential model for future service area renovations.
- The Authority hired a licensing agent to put together merchandise deals for both roadways in May 2015. New Jersey Turnpike and Garden State Parkway licensed products will be available for sale. The merchandise will be carried at retail stores, service areas and at the future official Authority online store.
- The Authority's \$7 Billion Capital Improvement Program (CIP) continued, and as of December 31, 2015, nearly 89% of the overall budget has been spent or committed on projects. The Authority spent over \$742,000 on CIP projects in 2015.





- The Authority issued \$750,000 of Series 2015E Turnpike Revenue Bonds to continue to fund the \$7 billion CIP. The Authority's credit ratings were re-affirmed by all three rating agencies as part of the bond sale.
- Toll revenue in 2015 was \$1,523,133, which was \$8,300, or 0.5% above projections. In 2015, traffic on the Turnpike increased by 6.2% compared to 2014, while toll transactions on the Parkway increased by 2.4%. Traffic and revenue increased due to declining gas prices, improving economic conditions, favorable weather conditions from April through December 2015, and the widening of both roadways. This was the fourth consecutive year that the Authority met its toll revenue projections.
- The Authority's net position increased by \$120,675, or 22.4%, from \$537,615 in 2014 to \$658,290 in 2015. Net position increased as the Authority's operating income exceeded its net non-operating expenses. Prior to GASB 68 adoption, net position increased by \$131,092 or 14.0% from \$934,924 to \$1,066,016 in 2015.





### Implementation of GASB 68

During 2015, the Authority adopted GASB Statement 68, *Accounting and Financial Reporting for Pensions* (GASB 68). This statement addresses accounting and financial reporting for pensions that are provided to the employees of state and local governmental employers through pension plans that are administered through trusts. Concurrently with the adoption of GASB 68, the Authority implemented GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date* (GASB 71). This statement addresses an issue in GASB 68 concerning transition provisions related to certain pension contributions made to defined benefit plans prior to the implementation of GASB 68 by employers and nonemployer contributing entities.

The Authority participates in the State of New Jersey Public Employees' Retirement System (PERS), a defined benefit cost-sharing multiple-employer pension plan. GASB 68 requires that the proportionate share of the net pension liability be recognized by each participating employer in the plan. The net pension liability is the portion of the actuarial present value of projected benefit payments attributed to past periods of employee service net of the pension plan's fiduciary net position. A cost-sharing employer is also required to recognize its proportionate share of pension expense and report deferred outflows and deferred inflows of resources for its proportionate share. The changes in net pension liability adjusted for the deferred inflows and deferred outflows of resources result in pension expense. Prior to the adoption of GASB 68, the Authority only recognized pension expense for these plans up to the amount contributed to the plan as indicated within the fringe benefit rate provided by the State of New Jersey. As of December 31, 2015 and 2014, the Authority recognized a net pension liability of \$435,015 and \$366,300, respectively, for its proportionate share of PERS net pension liability. The Authority was required to decrease the beginning net position at January 1, 2014 by \$394,252 to reflect the cumulative effect of the adoption of GASB 68, as well as restate the 2014 financial statements. (See note 2(t)).

## Condensed Summary of Net Position

	2015	2014	2013*
<b>Assets:</b>			
Current assets	\$ 1,552,246	1,468,866	1,238,090
Other noncurrent assets	1,190,230	1,164,147	1,075,276
Capital assets, net of accumulated depreciation	10,801,091	10,033,353	9,069,134
Total assets	<u>\$ 13,543,567</u>	<u>12,666,366</u>	<u>11,382,500</u>
<b>Deferred outflows:</b>			
Accumulated decrease in fair value of hedging derivatives	\$ 4,807	6,067	—
Deferred amount on refunding	149,697	162,311	204,256
Deferred amount relating to pension	65,426	19,849	—
Total deferred outflows	<u>\$ 219,930</u>	<u>188,227</u>	<u>204,256</u>
<b>Liabilities:</b>			
Current liabilities	\$ 903,179	888,748	825,682
Noncurrent liabilities	12,188,373	11,401,854	10,060,298
Total liabilities	<u>13,091,552</u>	<u>12,290,602</u>	<u>10,885,980</u>
<b>Deferred inflows:</b>			
Accumulated increase in fair value of hedging derivatives	—	—	30,989
Deferred amount relating to pension	13,655	26,376	—
Total deferred inflows	<u>\$ 13,655</u>	<u>26,376</u>	<u>30,989</u>
<b>Net position:</b>			
Net investment in capital assets	\$ 858,384	710,972	407,125
Restricted under trust agreements	164,511	183,764	162,432
Unrestricted	(354,188)	40,188	100,230
Unrestricted - GASB 68 adoption	(10,417)	(397,309)	—
Total net position	<u>\$ 658,290</u>	<u>537,615</u>	<u>669,787</u>

\* The 2013 financial information has not been restated to reflect the adoption of GASB 68.

## Discussion of Condensed Summary of Net Position 2015, 2014, 2013

### 2015 – 2014

The Authority's total net position is reported at \$658,290 and \$537,615 as of December 31, 2015 and 2014, respectively, representing an increase of \$120,675 or 22.4%, compared to 2014. The major factor causing this increase was additional toll revenue, as traffic on both the Turnpike and the Parkway was higher in 2015 than in 2014. Capital assets increased by \$767,738 or 7.7% and other noncurrent assets increased by \$26,083 or 2.2%. Capital assets increased as a result of spending on the ongoing \$7 Billion CIP while the other noncurrent assets increased due to an increase in restricted investments representing the unspent proceeds of the Series 2015E Turnpike Revenue Bonds. Noncurrent liabilities increased by \$786,519 or 6.9% primarily due to the issuance of the \$750,000 new capital debt Series 2015E Turnpike Revenue Bonds in October 2015 and increase in the net pension liability.

## 2014 – 2013

The Authority's total net position is reported at \$537,615 and \$669,787 as of December 31, 2014 and 2013, respectively, representing a decrease of \$132,172 or 19.7%, compared to 2013. The major factor causing this decrease was due to the adoption of GASB 68 in 2015. This resulted in a restatement of the beginning net position as of January 1, 2014. Prior to the adoption of GASB 68, net position increased by \$265,137 or 39.6% from \$669,787 to \$934,924. Capital assets increased by \$964,219 or 10.6% and other noncurrent assets increased by \$88,871 or 8.3%. Capital assets increased as a result of spending on the ongoing \$7 Billion CIP, while the other noncurrent assets increased due to an increase in restricted investments representing the unspent proceeds of the \$1,000,000 Series 2014A Turnpike Revenue Bonds. Noncurrent liabilities increased by \$1,341,556 or 13.3% primarily due to the issuance of the \$1,000,000 Series 2014A Turnpike Revenue Bonds in May 2014 and GASB 68 net pension liability.

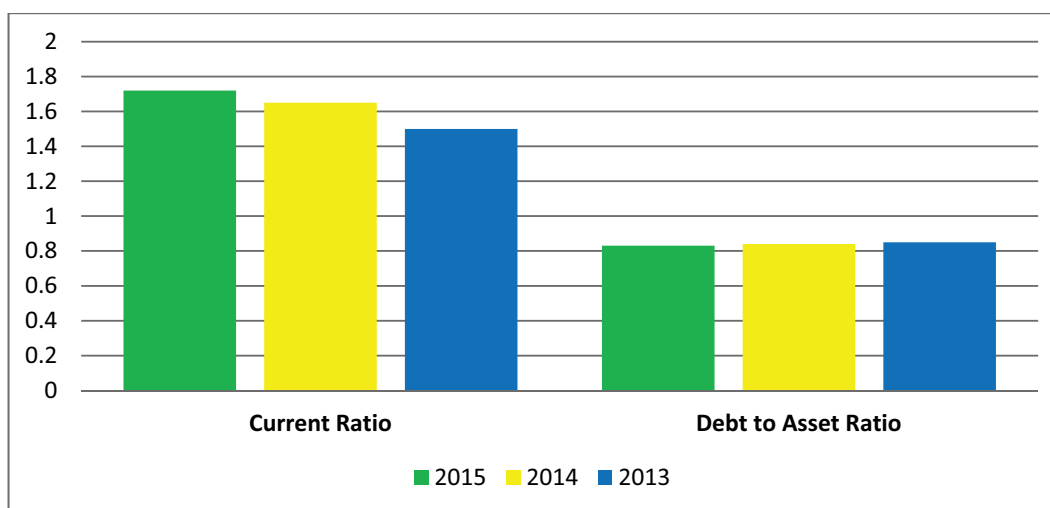
## Adjusted net position

	2015	2014	2013
<b>Net position as per GAAP Financials</b>	\$ 658,290	537,615	669,787
Unfunded non cash adjustment:			
Other postemployment benefit liability	315,039	286,581	259,847
Interest rate swaps liabilities	40,199	45,366	17,424
Net pension liability	435,015	366,300	—
Accounts payable and accrued expenses	24,482	24,482	—
Other long-term obligations	92,009	64,202	63,874
Hybrid instrument borrowing	111,526	130,181	146,808
Accumulated increase in fair value of hedging derivatives	—	—	30,989
Deferred amount relating to pensions	13,655	26,376	—
Accumulated decrease in fair value of hedging derivatives	(4,807)	(6,067)	—
Deferred amount on refunding	(105,726)	(113,762)	(144,549)
Deferred amount relating to pensions	(65,426)	(19,849)	—
Restricted investments	93,175	96,895	64,717
Capital assets, net of accumulated depreciation	(29,398)	—	—
<b>Total non cash adjustments</b>	<b>\$ 919,743</b>	<b>900,705</b>	<b>439,110</b>
Garden State Arts Foundation	\$ (737)	(975)	(1,114)
<b>Net Position as per Bond Resolution</b>	<b>\$ 1,577,296</b>	<b>1,437,345</b>	<b>1,107,783</b>

Shown above is the Authority's adjusted net position calculated as per the Authority's Bond Resolution. Net position as per the Bond Resolution has been calculated after adjusting for GASB 45 - Other Post-employment Benefits Liability, GASB 53 - Derivative Instruments and GASB 68 - Net Pension Liability. Net position as per the Bond Resolution also does not include other long-term liabilities such as pollution remediation liability, sick and accrued vacation liability, OCIP claims liabilities and GAAP reserves which are all non-cash liabilities. Over the past several years, the implementation of new GASB pronouncements has resulted in significant non-cash accounting reductions in the Authority's net position. Management believes that the net position as per the Bond Resolution provides an alternate view of the strength of the Authority's operations and its financial position.

**Net Position Ratio Analysis - GAAP Basis**

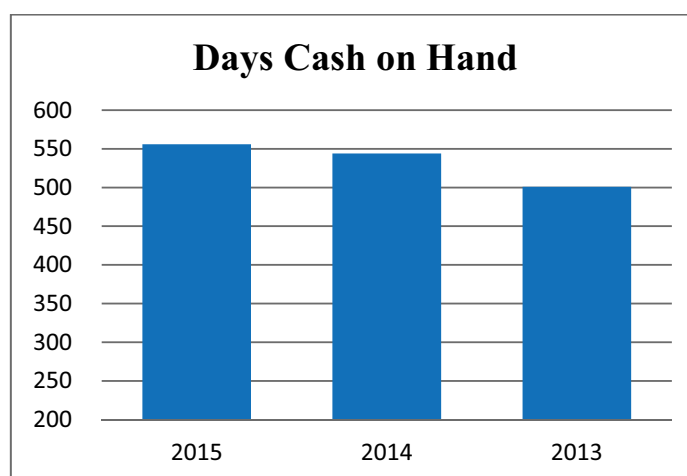
Ratio	2015	2014	2013	Explanation
<b><i>Current Ratio</i></b>	1.72	1.65	1.50	The current ratio is calculated as the Authority's current assets divided by current liabilities. A strong current ratio is over 1.0, and indicates an organization's ability to meet their short-term obligations. The Authority's ratio has remained relatively consistent through each year, with the average over the three year period being 1.62. The Authority has nearly two times the amount of current assets as compared with current liabilities. Further, year over year the Authority's current ratio has increased.
<b><i>Debt to Asset Ratio</i></b>	0.83	0.84	0.85	The debt to assets ratio is calculated by dividing total debt by total assets. The debt to asset ratio remained substantially unchanged over the three year period, as the Authority uses debt solely to finance the acquisition of capital assets.



### Key Performance Metric - Net Position

**Days Cash on Hand** – Days cash on hand is calculated by combining unrestricted cash and unrestricted investments and dividing by daily operating expenses (from the Revenue Fund). This calculation shows how long (in days), the Authority would be able to pay its operating expenses without the generation of revenue. As a result, a larger number of days cash on hand is desirable. As shown in the graph, the days cash on hand has consistently increased each year. Based on this calculation, in 2015, the Authority could go 556 days without generating any revenue and still pay its operating expenses.

		2015	2014	2013
Unrestricted Cash & Investments	\$	767,022	705,125	649,791
Daily Operating Expenses (Revenue Fund)	\$	1,379	1,295	1,296
Days cash on hand		556	544	501



### Capital Improvement Program (CIP)

- The Authority is in the midst of a \$7 Billion CIP that includes large scale projects such as widening stretches of both the Turnpike and Parkway and smaller projects that improve interchanges, rehabilitate bridges, and deploy new technologies. The \$7 Billion CIP continues to be on time and on budget or even ahead of schedule and under budget on some projects. Nearly seven years into the program, the Authority has spent or committed 89%, or \$6,205,000, of its original \$7,000,000 budget with minimal impact to traffic.
- Bond proceeds are deposited in the Construction Fund to support the \$7 Billion CIP. Total expenditures in the Construction Fund for the twelve months ended December 31, 2015 were approximately \$741,700. Expenses included approximately \$90,400 for the Parkway 35–63 Widening Project, approximately \$90,600 for the Turnpike Interchange 14A Reconstruction Project, approximately \$87,800 for the Authority Phase I Facilities Improvements Program, approximately \$80,400 for the Authority Phase II Facilities Improvements Program and approximately \$78,100 for the Turnpike Interchange 6 to 9 Widening Project. In addition to these expenditures, there are open contracts and commitments totaling approximately \$1,175,700. On March 11, 2015, the Authority broke ground on the \$400,000 Turnpike Interchange 14A Reconstruction project.
- As a part of the \$7 Billion CIP the Authority has taken great measures to increase the mobility and commuting speeds on both the Parkway and Turnpike. One of the main projects that were successfully completed in 2014 was the widening between Interchanges 6 and 9 on the Turnpike. This project provided three additional travel lanes in each direction from interchange 6 to 8A and also added one additional lane in both directions from 8A to 9. As a result of the widening, there has been a reduction in congestion between these exits. The Authority has also undertaken additional projects beyond the Turnpike Interchange 6 to 9 widening to improve the mobility of traffic on both the Parkway and Turnpike. For example, the Authority has also undertaken a project to improve traffic conditions at Turnpike Interchanges 15W and 16W. At Interchange 15W, the improvements will include ramp realignments, median barrier extension and signing, and at Interchange 16W the improvements include widening of a south west toll ramp over Berry's Creek Canal from one lane to two lanes to accommodate existing and projected traffic volumes.



The Projects currently included in the \$7 Billion CIP are the following:

<b>Project</b>	<b>Current Budget</b>	<b>Amount Spent or Committed to Date</b>	<b>Percent Spent &amp; Committed to Date</b>
Turnpike Widening (Interchange 6-9)	\$ 2,278,059	2,185,976	96%
Bridge improvements	1,699,447	1,262,912	74%
Roadway improvements	804,933	783,086	97%
Interchange improvements	1,027,936	842,188	82%
Facilities improvements	599,625	579,080	97%
Parkway Widening (Milepost 35-80)	590,000	552,592	94%
	<b>\$ 7,000,000</b>	<b>6,205,834</b>	<b>89%</b>

*Turnpike Widening:* The Turnpike Interchanges 6 to 9 Widening Program, which was completed on schedule and under budget, was opened to traffic in November 2014. The Turnpike widening provides three additional travel lanes in each direction between Interchanges 6 and 8A, and one additional lane in each direction between Interchanges 8A and 9. The program also added a new toll plaza at Interchange 8. During 2015, work related to roadway construction, sign structure and fabrication was done.

*Bridge Improvements:* The \$7 Billion CIP also includes the Turnpike Newark Bay-Hudson County Extension Bridge Deck Reconstruction which is in progress and will be completed by 2018. Four of the six major Parkway Bridges - Bass River Bridge, Mullica River Bridge, Patcong Creek Bridge and Great Egg Harbor Bridge - have been or will be rehabilitated as part of the CIP. Three of the four bridges – Bass River Bridge, Mullica River Bridge are completed in 2015.

*Interchange Improvements:* The \$7 Billion CIP also includes approximately \$1 Billion for Interchange Improvements on both roadways. Of note, the reconstruction of Interchange 14A on the Turnpike began in early 2015 and is continuing as per the schedule. Improvements to Interchanges 9, 10 and 11 on the Parkway are almost 80% complete.

*Roadway Improvements:* Roadway improvements totaling approximately \$804,900 are also included in the \$7 Billion CIP the most significant being Parkway mainline shoulder improvements between mileposts 83 to 100, is completed over 90% during 2015. This project will restore full-width shoulders on the right and left sides of the highway improve sight distances and remove obstructions in this section of the roadway. The improvements being made include the replacement of 20 bridges, the re-decking of nine bridges, and the construction of two new bridges, 26 storm water basins and 24 sign structures.

*Facility Improvements:* The \$7 Billion CIP includes approximately \$600,000 for facilities improvements. In total, the Authority will build 42 new structures and rehabilitate 18 others. Projects include the replacement of State Police Troop D buildings, the rehabilitation of 22 maintenance district facilities and improvements at all Turnpike toll plaza buildings.

*Garden State Parkway Widening:* The Parkway widening project will add a third travel lane and full-width shoulders between Mileposts 35 and 80 and will be completed as follows:

Phase I – Milepost 63 to 80 – Construction completed and open to motorists in May 2011.

Phase II – Milepost 48 to 63 –The widening between Milepost 52-63 was opened in the spring of 2014, with the remaining widening of this section to Milepost 48 opened in May 2015 upon the completion of the rehabilitation of the Bass River Bridge.

Phase III – Milepost 35 to 48 – The first construction contract for this section was awarded in June 2014 and construction began in July 2014. The widening between Milepost 48 to 41 is expected to be completed in late 2016 and the remainder in the spring of 2018.

Total budgeted costs for the Parkway 35-80 Widening Program are approximately \$600,000; however, \$100,000 of those costs were financed from the proceeds of bond anticipation notes prior to the issuance of the first Series of Bonds for the Capital Improvement Program.



## Capital Assets

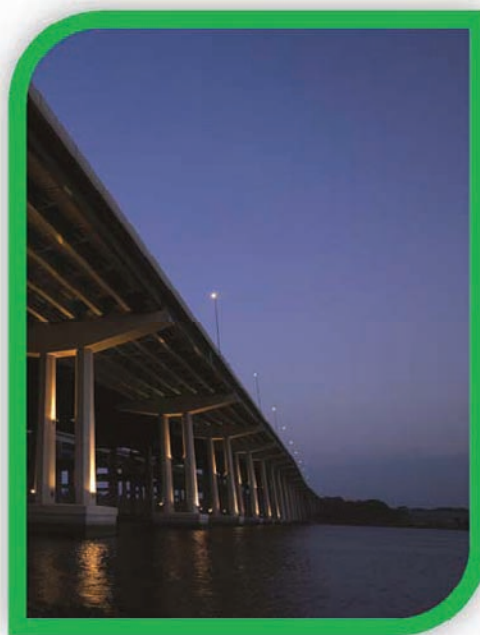
	December 31		
	2015	2014	2013
Land	\$ 824,797	797,313	775,569
Construction-in-progress	2,521,406	1,582,797	3,839,776
Road bed	2,371,993	2,402,834	1,995,674
Road surface	778,708	852,963	351,538
Bridges	3,237,642	3,279,488	1,335,963
Buildings and sound barriers	310,610	318,763	252,600
Equipment	755,935	799,195	518,014
Total capital assets, net of accumulated depreciation	\$ 10,801,091	10,033,353	9,069,134

Capital assets consist of land, buildings, improvements, equipment, infrastructure and construction in progress. Infrastructure assets are typically items that are immovable, such as highways and bridges.

### 2015 – 2014

The Authority's capital assets as of December 31, 2015 were \$13,965,253 of gross asset value with an accumulated depreciation of \$3,164,162 leaving a net book value of \$10,801,091. This represents 79.8% of the Authority's total assets.

Capital assets, net of accumulated depreciation, increased by \$767,738 in year-ended 2015 due to the continued spending on the Authority's \$7 Billion CIP. Major projects include the widening of the Parkway between Mileposts 35 and 63 Turnpike and Parkway Interchange improvement projects. Land increased by \$27,484 in year-ended 2015 due to the continued acquisition of parcels needed for the Turnpike Interchange 14A Improvement Project, the Parkway Milepost 35 to 63 Widening Project, and Parkway Interchange 105 Improvement project as well as other various improvement projects along the Authority's right-of-way. Construction in progress increased by \$938,609 in 2015 due to the continued spending on the Authority's \$7 Billion CIP. This increase is mainly the result of continued spending for the Facilities Improvements Phase I & II, Turnpike Interchange 14A Reconstruction, and Parkway Milepost 35 to 63 Widening Project. Road bed decreased by a net of \$30,841 in year-ended 2015 due to depreciation of the assets. Road surface decreased by \$74,255 in year-ended 2015 due to depreciation. Bridges decreased by \$41,846 in 2015 due to depreciation. Buildings and sound barriers decreased by \$8,153 in 2015 due to depreciation. Equipment decreased by \$43,260 in 2015 due to depreciation.



The Authority had open commitments related to construction contracts totaling \$1,175,668 as of December 31, 2015. This work relates to the Authority's \$7 Billion CIP and will be completed over the next few years.

#### **2014 – 2013**

The Authority's capital assets as of December 31, 2014 were \$12,881,138 of gross asset value with an accumulated depreciation of \$2,847,785 leaving a net book value of \$10,033,353. This investment represents 79.2% of the Authority's total assets.

Capital assets, net of accumulated depreciation, increased by \$964,219 due to the continued spending on the Authority's \$7 Billion CIP. Major projects include the widening of the Parkway between Mileposts 35 and 80 which is still under construction and the Turnpike Interchange 6 to 9 widening which was opened in November 2014. Land increased by \$21,744 in 2014 due to the continued acquisition of parcels needed for the Turnpike Interchange 14A Improvement Project, the Parkway Milepost 35 to 63 Widening Project, and the Parkway Interchange 105 Improvement project as well as other various improvement projects along the Authority's right-of-way. Construction in progress decreased by \$2,256,979 in 2014, the decrease is a result of the additional lanes constructed for the Turnpike 6 to 9 Widening Project being put into service. This decrease was partially offset by continued spending on the Parkway Mainline Shoulder Improvement Project, the Authority Phase I & II Facilities Projects, the Parkway Great Egg Harbor/Drag Channel Bridge Improvement and the Parkway Milepost 35 to 63 Widening Project. Road Bed increased by a net of \$407,160 in 2014. This was largely due to the completion of contracts related to the Turnpike 6 to 9 Widening Project, the Authority Drainage Improvement Project, and the Parkway Milepost 35 to 63 Widening Project. Road Surface increased by a net of \$501,425 in 2014 due to the Turnpike 6 to 9 Widening Project and the Parkway Interchange 35 to 63 Widening Project as well as general maintenance resurfacing on both the Turnpike and Parkway. Bridges increased by a net of \$1,943,525 in 2014 largely due to on Turnpike Interchange 6 to 9 Widening Project, the Newark Bay Hudson County Extension Project and the Hackensack Easterly River Bridge Re-decking Bridge. Buildings and sound barriers increased by a net of \$66,163 in 2014 largely due to sound barrier construction for the Turnpike Interchange 6 to 9 Widening Project. Equipment increased by a net of \$281,181 in 2014 primarily due to the installation of signs and technology equipment for the Turnpike Interchange 6 to 9 Widening Project and the Parkway Milepost 35 to 63 Widening Project.

The Authority had open commitments related to construction contracts totaling approximately \$1,411,224 as of December 31, 2014. This work relates to the Authority's \$7 Billion CIP and will be completed over the next several years.

## Condensed Summary of Revenue, Expenses and Changes in Net Position

	2015	2014	2013*
Operating revenues:	\$ 1,632,023	1,549,740	1,513,464
Operating expenses, excluding depreciation (1)	(609,550)	(564,925)	(533,002)
Net operating revenue	1,022,473	984,815	980,462
Depreciation expense	(316,377)	(201,001)	(173,901)
Operating income	706,096	783,814	806,561
Nonoperating revenues (expenses):			
Build America Bonds subsidy	75,908	75,745	75,173
Payments to the State of New Jersey	(354,001)	(354,001)	(354,001)
Interest expense, Turnpike Revenue Bonds	(310,363)	(205,195)	(195,382)
Other bond expenses	(2,752)	(4,738)	(7,378)
Sale of capital assets	(248)	(4,763)	—
Investment (loss) income	2,403	(32,312)	48,137
Arts Center	3,632	3,530	3,178
Total nonoperating revenues (expenses), net	(585,421)	(521,734)	(430,273)
Change in net position	120,675	262,080	376,288
Net position – Beginning of period	537,615	669,787	293,499
GASB 68 adoption as of 1/1/2014	—	(394,252)	—
Net position – End of period	\$ 658,290	537,615	669,787

\* The 2013 financial amounts have not been restated to reflect the adoption of GASB 68.

(1) Operating expenses include both the funded and the non-cash portion of the annual OPEB cost.

## Discussion of Condensed Summary of Revenue, Expenses and Changes in Net Position

### 2015 – 2014

Operating revenues totaled \$1,632,023 for the year ended December 31, 2015, representing an increase of \$82,283 or 5.3% from the year ended December 31, 2014. The principal source of revenue for the Authority is tolls. During 2015, toll revenue totaled \$1,523,133 and constituted 93.3% of the Authority's operating revenues, as compared to \$1,445,748, or 93.3%, in 2014. On the Turnpike, passenger car traffic increased 6.4% while commercial vehicle traffic increased by 4.5% resulting in an overall increase of 6.2%. On the Parkway, passenger car toll transactions increased 2.4% while commercial vehicle toll transactions increased 3.6%. The increases on both roadways as compared to 2014 reflect declining gas prices in 2015, an improving economy, and favorable weather conditions from April through December 2015. In addition, toll revenue increased due to the positive impacts on traffic from the widening of both roadways.

Electronic toll collection remains popular and overall usage rates continue to be strong. On the Turnpike, the E-Z Pass usage rate for passenger cars was 80.5% and for commercial vehicles was 89.9%, resulting in an overall usage rate of 81.7%. On the Parkway, the overall E-Z Pass usage rate increased to 78.7% from 78.1% in 2014. During 2015, passenger cars had a usage rate of 78.7% and commercial vehicles had a usage rate of 88.8%.

E-Z Pass fees totaled \$56,262 and \$52,773 for the years ended December 31, 2015 and 2014, respectively, representing an increase of \$3,489 or 6.6%. E-Z Pass fees consist of monthly

membership fees, transponder sales, returned check fees, administrative fees, fiber lease revenue, interest on prepaid accounts and monthly statement fees. The increase resulted from gains in membership fees and administrative fees. There are approximately 126,000 more NJ E-Z Pass accounts at the end of 2015 as compared to 2014. Administrative fee collections increased due to enhanced enforcement and collection efforts, including New Jersey Motor Vehicle Commission registration holds for repeat violators.

Concession revenues were \$38,993, constituting 2.4% of total operating revenues. This represents an increase of \$2,151 or 5.8% from \$36,842 in 2014. The increase is due to the higher than expected commissions received on diesel fuel sales on the Turnpike. Overall, revenue from fuel sales on the Turnpike increased 16.3% and decreased 6.3% on the Parkway. Revenue from food sales on the Turnpike increased 4.6% and decreased 2.7% on the Parkway. The increase in food and fuel sales was partly due to the reopening of the Grover Cleveland Service Area on November 23, 2015 after three years of closure due to the effects of Superstorm Sandy.

Miscellaneous revenue totaled \$13,635 for the year ended December 31, 2015, representing a decrease of \$742, or 5.2%, compared to the year ended December 31, 2014. Miscellaneous revenue includes rentals of cell tower sites, fiber optic lines, towing commissions, park and ride receipts and easements. Miscellaneous revenue decreased primarily due to lower amounts received in 2015 from the Federal Emergency Management Agency (FEMA) for previously declared weather events.

General operating expenses, excluding depreciation, totaled \$609,550 for the year ended December 31, 2015, representing an increase of \$44,625 or 7.9% from \$564,925 for the year ended December 31, 2014. The higher costs are primarily the result of an increase of approximately \$25,000 in the non-cash portion of the OPEB expense and an increase of \$10,417 in the non-cash portion of the pension expense. In accordance with GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions (OPEB)* (GASB 45), the Authority recorded an expense of \$100,182 representing the annual OPEB cost. The increase is due to increase in normal cost as compared to prior valuation period, increase in amortization of the unfunded actuarial accrued liability (UAAL) and additional adjustments for timing differences between cash and accrual accounting, and to prevent double counting of OPEB plan costs. The annual OPEB cost, including the non-cash portion, is included in Operating Expenses and is allocated to each functional expense category based upon the number of active full time employees in each category. Maintenance expenses increased by \$22,732 primarily due to the non-cash increase in the annual OPEB cost allocated to maintenance of \$8,600, additional maintenance work for roadway and related repairs of \$7,600 and an increase in snow and severe weather costs of \$2,800. In 2015, the Authority spent a record amount on snow and severe weather totaling \$46,731. State police and traffic control costs increased by \$5,538 due primarily to a planned increase in the number of State Troopers patrolling the roadways, as well as higher fringe benefit costs. General and Administrative expenses increased by \$7,161. Toll collection costs increased by \$3,726. The increase in General and Administrative and Toll Collection expenses is primarily due to an increase in the OPEB expense and pension expense allocated to these areas. Depreciation expense during 2015 totaled \$316,377, which was an increase of \$115,376 from 2014 due to the increase in capital assets generated from the \$7 Billion CIP.

Net non-operating expenses increased by \$63,687 from 2014 primarily due to increase in interest expense on the Turnpike Revenue Bonds. The increase in interest expense was partially offset by the increase in investment income in 2015 as compared to an investment loss in 2014.

The Build America Bonds subsidy represents a direct payment by the United States Treasury to the Authority originally equal to 35% of the interest payable on the Series 2009F bonds and the Series 2010A bonds. The Build America Bonds subsidy in 2015 was \$75,908, an increase of \$163 from 2014 due to increase in 2015 interest expenses and a change in the automatic Federal deficit reduction spending cuts. The subsidy payment received in June 2015 was reduced by 7.3%, and the payment received in December 2015 was reduced by 6.8%, while in 2014 the comparable payments were reduced by 7.2% and 7.3%.

Payments to the State of New Jersey remained unchanged at \$354,001 in 2015 and 2014. Under the terms of an agreement dated April 27, 1984 and amendments dated August 1, 1995 and March 27, 2000, the Authority agreed to make annual payments to the State of New Jersey to assist in transportation purposes. These payments are \$22,000 annually and are due until all obligations of the New Jersey Transportation Trust Fund Authority, as set forth in the 2000 Amendment, are paid for or such payment has been provided for. The payments are made from the General Reserve Fund and are subordinate to debt service payments on all outstanding bonds and all other obligations under the Authority's General Bond Resolution. Under the terms of a State Transportation Projects Funding Agreement dated September 30, 2011, the Authority agreed to

make annual payments to the State of New Jersey for the development of state transportation projects. These payments total \$324,000 in calendar 2013, \$324,000 in calendar 2014, \$324,000 in calendar 2015, and \$162,000 in calendar 2016. The agreement terminates on June 30, 2016. The payments are made from the General Reserve Fund and are subordinate to debt service payments on all outstanding bonds and all other obligations under the Authority's General Bond Resolution. The Authority also made annual payments to the State of New Jersey in the amount of \$8,001 in 2015 and 2014 for feeder road maintenance provided by the New Jersey Department of Transportation. This agreement is expected to be renewed annually.

Investment earnings were a gain of \$2,403 in 2015 as compared to loss of \$32,312 in 2014. Interest income earned by the Authority on investments was \$11,683 in 2015, slightly decreasing from \$12,541 in 2014. The adoption of GASB Statement No. 53 in 2010 requires the recognition of certain of the Authority's interest rate swaps as investments. Accordingly, the fixed payments made on these interest rate swaps, the variable payments received and the changes in fair market value are required to be reported as investment income (loss). In 2015 and 2014, the Authority was required to report the mark-to-market value of the interest rate swaps that hedge the Series 2000B-G bonds as investments. In 2015, the Authority recorded an investment loss of \$13,005 representing the fixed interest payments on the Series 2000B-G swaps, net of the variable payments received, compared to an investment loss of \$12,678 in 2014. In 2015, the Authority recognized an investment gain of \$3,720, representing the change in fair market value of the Series 2000B-G swaps as compared to an investment loss of \$32,178 in 2014. In addition, in 2015 and 2014, the Authority recorded capitalized interest income of \$2,290 and \$2,577, respectively.

Interest expense increased by \$105,168 in 2015 as compared to 2014, due to less interest capitalization in 2015 as work in progress for which interest can be capitalized during the construction period, decreased in 2015. Work in progress decreased due to the completion of the Turnpike Interchange 6 to 9 widening project in November 2014

### **2014 – 2013**

Operating revenues totaled \$1,549,740 for the year ended December 31, 2014, representing an increase of \$36,276, or 2.4% from the year ended December 31, 2013. The principal source of revenue for the Authority is tolls. During 2014, toll revenue totaled \$1,445,748 and constituted 93.3% of the Authority's operating revenues, as compared to \$1,413,763, or 93.4%, in 2013. On the New Jersey Turnpike, passenger car traffic increased 3.7% while commercial vehicle traffic increased by 2.1% resulting in an overall increase of 3.5%. On the Garden State Parkway, passenger car toll transactions increased 0.4% while commercial vehicle toll transactions decreased 0.5%. Passenger cars constituted 98.6% of all Parkway toll transactions; therefore, changes in commercial toll transactions only have minimal impacts. The increases on both roadways as compared to 2013 reflect an improving economy, declining gas prices in 2014 and favorable weather conditions from April through December 2014.

Electronic toll collection remains popular and overall usage rates continue to be strong. On the New Jersey Turnpike, the E-Z Pass usage rate for passenger cars was 80.0% and for commercial vehicles was 89.3%, resulting in an overall usage rate of 81.2%. On the Garden State Parkway, the overall



E-Z Pass usage rate was up to 78.1% from 77.6% in 2013. During 2014, passenger cars had a usage rate of 77.9% and commercial vehicles had a usage rate of 88.4%.

E-Z Pass fees totaled \$52,773 and \$51,372 for the years ended December 31, 2015 and 2014, respectively, representing an increase of \$1,401, or 2.7%. E-Z Pass fees consist of monthly membership fees, transponder sales, returned check fees, administrative fees, fiber lease revenue, interest on prepaid accounts and monthly statement fees. The increase resulted from gains in membership fees and administrative fees. There are approximately 175,000 more NJ E-Z Pass accounts at the end of 2014 as compared to 2013. Administrative fee collections increased due to enhanced enforcement and collection efforts, including New Jersey Motor Vehicle Commission registration holds for repeat violators.

Concession revenues were \$36,842, constituting 2.4% of total operating revenues. This represents an increase of \$1,880 or 5.4% from \$34,962 in 2013. The increase is due to the higher gross profit margin on diesel fuel sales on the Turnpike. Overall, revenue from fuel sales on the Turnpike increased 15.2% and decreased 9.0% on the Parkway. Revenue from food sales on the Turnpike increased 8.6% and decreased 1.7% on the Parkway. Miscellaneous revenue totaled \$14,377 for the year ended December 31, 2014, representing an increase of \$1,010, or 7.6%, compared to the year ended December 31, 2013. Miscellaneous revenue includes rentals of cell tower sites, fiber optic lines, towing commissions, park and ride receipts and easements. The increase in 2014 is largely due to the \$2,335 FEMA reimbursement for Superstorm Sandy and \$1,051 in surplus land sales, offset by two one-time payments of \$152 and \$2,474 in 2013 from the municipal derivative settlements between multi-state Attorney Generals and JP Morgan Chase and UBS, respectively.

General operating expenses, excluding depreciation, totaled \$564,925 for the year ended December 31, 2014, representing an increase of \$31,923, or 5.9% from \$533,002 for the year ended December 31, 2013. The higher costs are a result of increased Maintenance expenses of \$27,461 primarily due to increased snow and severe weather costs. In 2014, the Authority spent a total of \$43,931 on snow and severe weather costs. The amount spent in 2014 was a record level and was an increase of \$19,185 over 2013 costs. Also, in 2014 less personnel and fringe benefit costs were charged to capital projects based upon time spent on capital projects. Maintenance expenses also increased due to higher utility costs from the severe winter weather in the first quarter of 2014 as well as higher property insurance costs as insured values increased from the completed projects in the \$7 Billion CIP. State police and traffic control costs increased by \$7,353 due primarily to a planned increase in the number of State Troopers patrolling the roadways, as well as higher fringe benefit costs. General and Administrative expenses decreased by \$2,217 due primarily to savings in insurance (other than property insurance) as well as continued headcount reductions and control of discretionary expenses. Toll collection costs decreased by \$1,298 due to the savings from the renegotiated toll collector contracts and the extended electronic toll collection contract with Xerox. In accordance with GASB 45, the Authority recorded an expense of \$75,636 representing the annual OPEB cost. The Authority recorded an expense of \$3,057 representing the GASB 68 pension expense for 2014. The annual OPEB cost, and the Pension cost including the non-cash portions are included in Operating Expenses and are allocated to each functional expense category based upon the number of active full time employees in each category. Depreciation expense during

2014 totaled \$201,001, which was an increase of \$27,100 from 2013 due to the increase in capital assets generated from the \$7 Billion CIP.

Net non-operating expenses increased by \$91,461 from 2013 primarily due to the recording of an investment loss in 2014 as compared to investment income in 2013. The investment loss was the result of an increase in the negative mark-to-market value of the Series 2000B-G interest rate swap, which is classified as an investment in accordance with GASB Statement No. 53.

The Build America Bonds subsidy represents a direct payment by the United States Treasury to the Authority originally equal to 35% of the interest payable on the Series 2009F bonds and the Series 2010A bonds. The Build America Bonds subsidy in 2014 was \$75,745, an increase of \$572 from 2013 due to a change in the automatic Federal deficit reduction spending cuts. The subsidy payment received in June 2014 was reduced by 7.2%, and the payment received in December 2014 was reduced by 7.3%, while in 2013 the comparable payments were reduced by 8.7% and 7.2%.

Payments to the State of New Jersey remained unchanged at \$354,001 in 2014 and 2013. Under the terms of an agreement dated April 27, 1984 and amendments dated August 1, 1995 and March 27, 2000, the Authority agreed to make annual payments to the State of New Jersey to assist in transportation purposes. These payments are \$22,000 annually and are due until all obligations of the New Jersey Transportation Trust Fund Authority, as set forth in the 2000 Amendment, are paid for or such payment has been provided for. The payments are made from the General Reserve Fund and are subordinate to debt service payments on all outstanding bonds and all other obligations under the Authority's General Bond Resolution. Under the terms of a State Transportation Projects Funding Agreement dated September 30, 2011, the Authority agreed to make annual payments to the State of New Jersey for the development of state transportation projects. These payments total \$331,000 in calendar 2012, \$324,000 in calendar 2013, \$324,000 in calendar 2014, \$324,000 in calendar 2015, and \$162,000 in calendar 2016. The agreement terminates on June 30, 2016. The payments are made from the General Reserve Fund and are subordinate to debt service payments on all outstanding bonds and all other obligations under the Authority's General Bond Resolution. The Authority also made annual payments to the State of New Jersey in the amount of \$8,001 in 2014 and 2013 for feeder road maintenance provided by the New Jersey Department of Transportation. This agreement is expected to be renewed annually.

Investment earnings were a loss of \$32,312 in 2014 as compared to income of \$48,137 in 2013. Interest income earned by the Authority on investments was \$15,118 in 2014, increasing from \$13,247 in 2013 as a result of an increase in investable balances and an increase in the unrealized gain from the mark-to-market of the investment portfolio. The adoption of GASB Statement No. 53 in 2010 requires the recognition of certain of the Authority's interest rate swaps as investments. Accordingly, the fixed payments made on these interest rate swaps, the variable payments received and the changes in fair market value are required to be reported as investment income (loss). In 2014 and 2013, the Authority was required to report the mark-to-market value of the interest rate swaps that hedge the Series 2000B-G bonds as investments. In 2014, the Authority recorded an investment loss of \$12,678 representing the fixed interest payments on the Series 2000B-G swaps, net of the variable payments received. In 2014, the Authority recognized an investment loss of \$32,178, representing the change in fair market value of the Series 2000B-G swaps. In addition, in



2014 and 2013, the Authority recorded capitalized interest income of \$2,577 and \$3,123, respectively. In 2013, the Authority recorded an investment loss of \$13,837 representing the fixed interest payments on the Series 2000B-G swaps, net of the variable payments received. In addition, in 2013, the Authority recognized investment income of \$51,848 representing the change in fair market value of the Series 2000B-G swaps.

Interest expense increased by \$9,813 in 2014 as compared to 2013, due to interest expense on the Series 2013A Bonds for a full year in 2014 and the interest paid on the Series 2014A bonds issued in May 2014, partially offset by a higher deduction for interest capitalized to projects in 2014, as well as an increase in amortization.

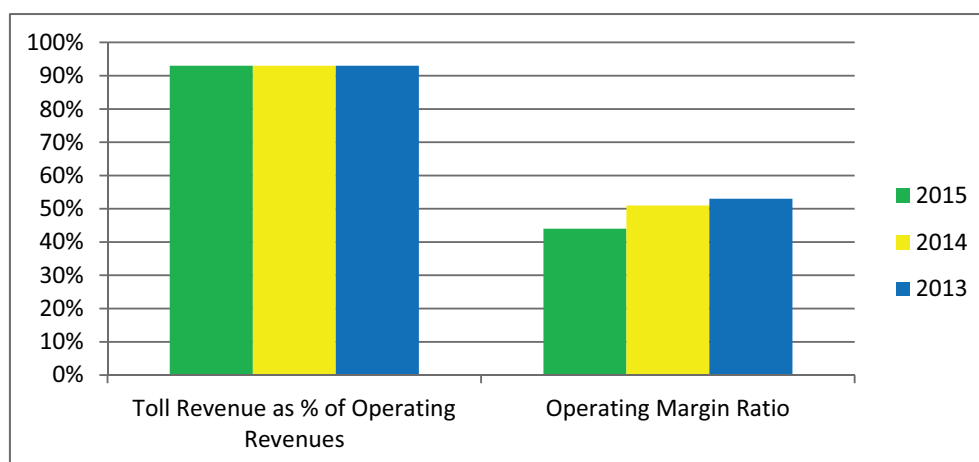
### Adjusted Revenue, Expenses and Change in Net Position

	2015	2014	2013
<b>Change in Net Position as per GAAP Financials</b>	\$ 120,675	262,080	376,288
Unfunded non cash adjustments:			
Total operating expenses - GAAP adjustments	37,285	30,120	21,291
Interest expense, Turnpike Revenue Bonds	(226,702)	(316,837)	(294,982)
Investment income (loss)	11,574	47,432	(34,888)
Interfund transfers	196,880	306,629	273,204
Total Non Cash Adjustment	\$ 19,037	67,344	(35,375)
Garden State Arts Foundation	238	139	45
<b>Change in net position as per Bond Resolution</b>	\$ 139,950	329,563	340,958
Add other Non cash expenses			
Depreciation	316,377	201,001	173,901
Amortization	(35,382)	(28,722)	(20,686)
<b>Change in Net Position - Non-GAAP</b>	\$ 420,945	501,842	494,173

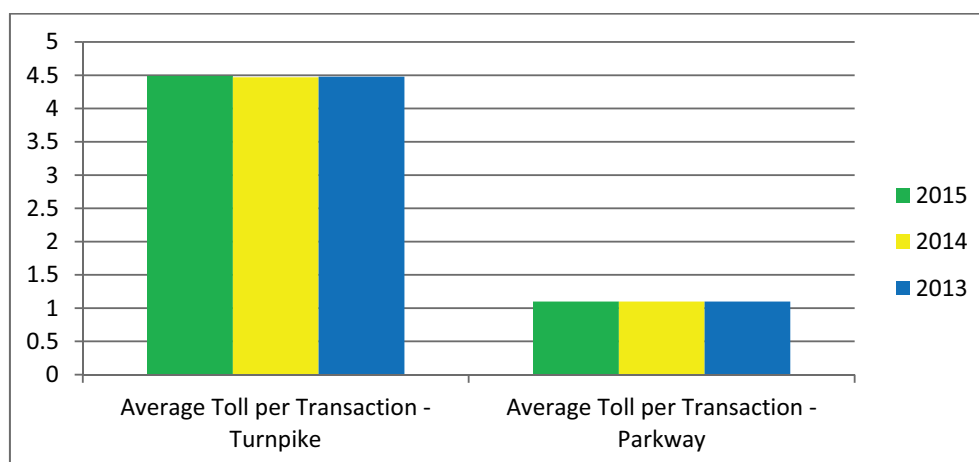
Shown above is the change in Net Position as per the Bond Resolution and has been calculated by adjusting the change in Net Position as per GAAP for non-cash expenses such as the non-cash portion of the Annual OPEB expense, GASB 68 Pension Expenses, and interest expense and investment income or loss due to the effects of GASB 53. The Change in Net Position – Non-GAAP is calculated by adding back the non-cash expenses such as depreciation and amortization of discounts and premium to the Adjusted Change in Net Position – Bond Resolution. Management believes that the Adjusted Change in Net Position above, which eliminates the more significant GAAP basis non-cash line items, presents an alternate view of the strength of the Authority's financial results.

### Revenue and Expense Ratio Analysis - GAAP Basis

Ratio	2015	2014	2013	Explanation
<b><i>Toll Revenue as % of Operating Revenue</i></b>	93%	93%	93%	Toll revenue as percentage of operating revenue is calculated by dividing toll revenue by operating revenue. This percentage has remained consistent over the three years at 93%, indicating that almost all of the Authority's revenue is earned from toll collection. It also indicates that as a whole, all revenue sources have increased at approximately the same percentage over the past three years.
<b><i>Operating Margin Ratio Percentage</i></b>	43%	51%	53%	The operating margin ratio percentage is calculated by taking operating income before interest and dividing by total operating revenue. From 2014 to 2015, the decrease in the operating margin ratio can be attributed to the increase in depreciation expense as well as the annual OPEB and pension expense. Both of these increases are in non-cash items. From 2013 to 2014, the operating margin ratio remained relatively the same with only a decrease of 2%.



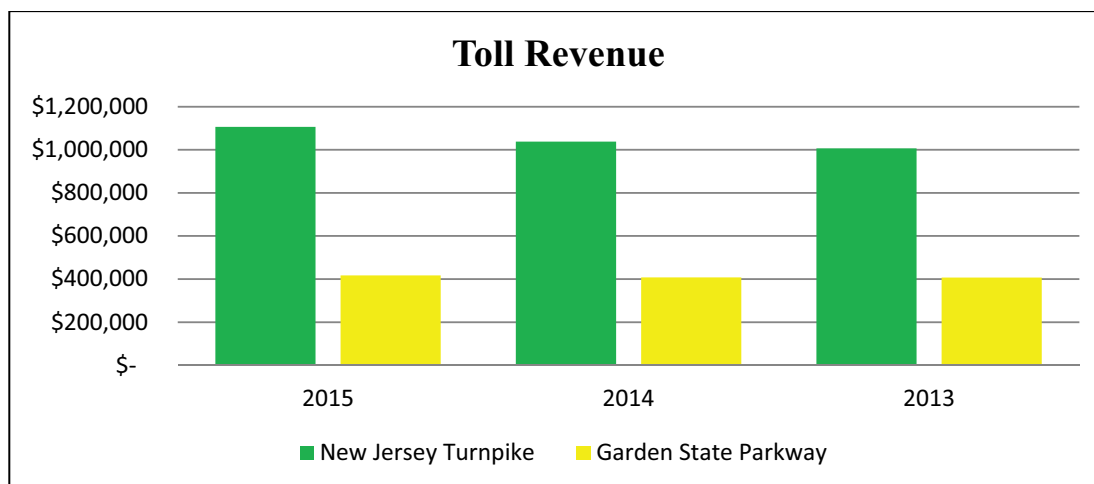
Ratio	2015	2014	2013	Explanation
<i>Average Toll per Transaction - Turnpike</i>	4.49	4.47	4.48	Average toll per transaction is calculated by dividing toll revenue by the number of toll transactions. The average toll per transaction increased slightly from 2014 to 2015 and from 2013 to 2014. This indicates that there were slightly higher vehicle miles travelled each year and longer average trip lengths on the roadway.
<i>Average Toll per Transaction - Parkway</i>	1.10	1.10	1.10	The average toll per transaction on the Parkway remained unchanged over the three year period. Accordingly, on average, the composition of toll transactions by barrier and class remained constant over the three year period.



### Key Performance Metrics - Revenue and Expenses

**Toll Revenue** – Toll revenue has increased from 2013 to 2015. When comparing 2014 to 2015, there is a substantial increase in toll revenue of 5.4% overall for both the Turnpike and Parkway. The greatest increase in toll revenue can be seen from 2014 to 2015 on the Turnpike, with an increase of 6.6%, due to favorable gas prices and a more mild winter in 2015. Further, the increase can be attributed to the widening of between Interchanges 6 and 9 on the Turnpike which was opened to traffic in late 2014. Toll revenue from 2013 to 2014 also increased, for both the Turnpike and Parkway, for an overall increase of 2.3%, due primarily to normal growth from an improving economy, as well as the opening of the Turnpike widening between Interchanges 6 and 9 in late 2014.

	<b>New Jersey Turnpike</b>	<b>Garden State Parkway</b>	<b>Total</b>
2015	\$ 1,106,268	416,865	1,523,133
2014	\$ 1,037,744	408,004	1,445,748
2013	\$ 1,006,721	407,044	1,413,765
% change from 2014 to 2015	6.6%	2.2%	5.4%
% change from 2013 to 2014	3.1%	0.2%	2.3%

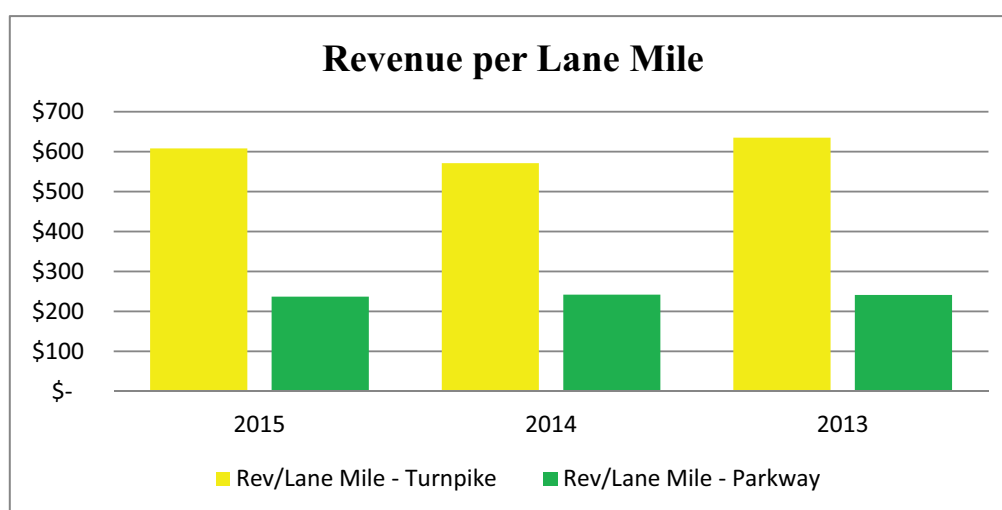


### **Toll Revenue Schedules**

New Jersey Turnpike Schedule of Toll Revenue For the Twelve Months Ended December 31, 2015, 2014 and 2013 (all amounts in thousands)							
		2015		2014		2013	
Class	Description	Toll revenue	Number of vehicles (unaudited)	Toll revenue	Number of vehicles (unaudited)	Toll revenue	Number of vehicles (unaudited)
1	Passenger car, motorcycle, taxi or hearse, light truck	\$ 756,561	215,358	704,436	202,347	680,137	195,208
2	Vehicles having two axles other than type described under Class 1	61,429	8,233	58,764	7,946	56,690	7,712
3	Vehicle (vehicles), single or in combination, having three axles	27,479	3,374	25,474	3,162	25,255	3,182
4	Vehicle (vehicles), single or in combination, having four axles	33,465	2,679	30,384	2,492	29,466	2,445
5	Vehicle (vehicles), single or in combination, having five axles	227,615	14,909	215,957	14,274	209,935	13,980
6	Vehicle (vehicles), single or in combination, having six or more axles	6,392	335	5,864	316	5,323	300
7	Buses having two axles	2,156	413	2,069	405	2,019	389
8	Buses having three axles	13,849	1,296	13,723	1,300	13,095	1,269
	Nonrevenue vehicles	—	1,558	—	1,517	—	1,504
		1,128,946	248,155	1,056,671	233,759	1,021,920	225,989
	Nonrevenue vehicles	—	(1,558)	—	(1,517)	—	(1,504)
	Toll Adjustments and Discounts	(5,106)	—	(4,001)	—	(2,914)	—
	Net Violations	(17,572)	—	(14,926)	—	(12,285)	—
		\$ 1,106,268	246,597	1,037,744	232,242	1,006,721	224,485

Garden State Parkway Schedule of Toll Revenue For the Twelve Months Ended December 31, 2015, 2014 and 2013 (all amounts in thousands)							
		2015		2014		2013	
Class	Description	Toll revenue	Number of vehicles (unaudited)	Toll revenue	Number of vehicles (unaudited)	Toll revenue	Number of vehicles (unaudited)
1	Passenger car, motorcycle, taxi or hearse, light truck	\$ 407,254	374,092	398,210	365,337	397,246	363,863
2	Vehicles having two axles other than type described under Class 1	2,674	1,124	2,472	1,081	2,241	1,085
3	Vehicle (vehicles), single or in combination, having three axles	3,476	1,142	3,199	1,046	2,851	1,083
4	Vehicle (vehicles), single or in combination, having four axles	3,511	815	3,266	772	2,716	736
5	Vehicle (vehicles), single or in combination, having five axles	2,584	532	2,496	520	2,261	537
6	Vehicle (vehicles), single or in combination, having six or more axles	138	25	140	25	221	26
7	Buses having two axles	1,589	605	1,521	570	2,570	611
8	Buses having three axles	2,589	949	2,748	998	2,473	976
	Nonrevenue vehicles	—	1,476	—	1,497	—	1,543
		423,815	380,760	414,052	371,846	412,579	370,460
	Nonrevenue vehicles	—	(1,476)	—	(1,497)	—	(1,543)
	Toll Adjustments and Discounts	(474)	—	(393)	—	(320)	—
	Net Violations	(6,476)	—	(5,655)	—	(5,215)	—
		\$ 416,865	379,284	408,004	370,349	407,044	368,917

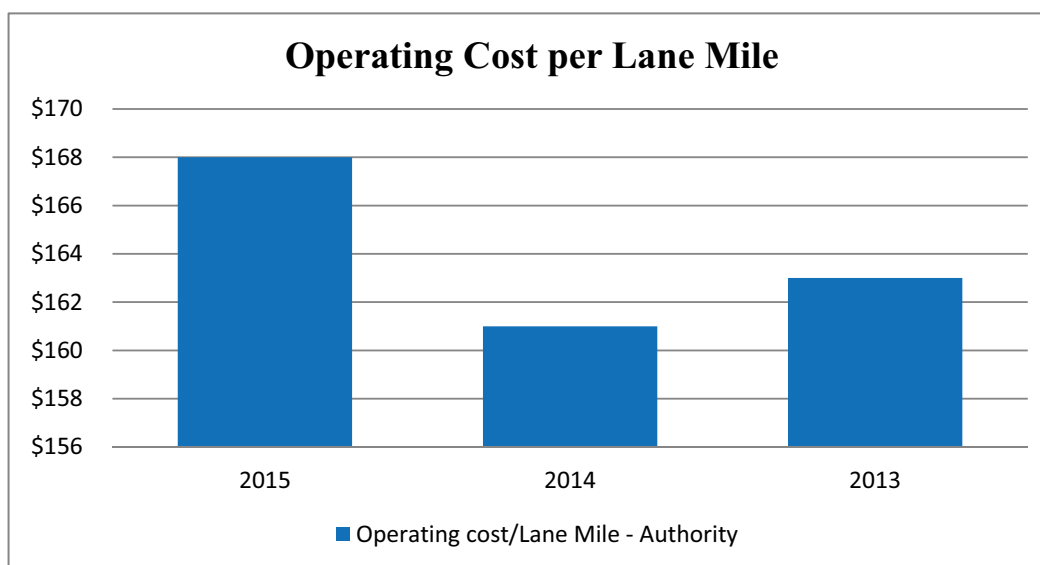
**Revenue per Lane Mile** – Revenue has increased each year (from 2013 to 2014 and from 2014 to 2015) on both the Turnpike and Parkway. From 2014 to 2015, lane miles on the Turnpike remained unchanged; therefore the increase in revenue per lane mile was attributable to the increase in Turnpike toll revenue partially due to the additional traffic from the Interchange 6 to 9 widening. The revenue per lane mile on the Parkway decreased slightly in 2015 from 2014, as additional lane miles were added mid-year and consequently did not have a full year revenue impact, negatively impacting the calculation. From 2013 to 2014, despite an increase in toll revenue, the revenue per lane mile decreased on the Turnpike. The additional lane miles were added in November 2014 and the timing negatively impacted the 2014 calculation. The revenue per lane mile on the Parkway remained unchanged.



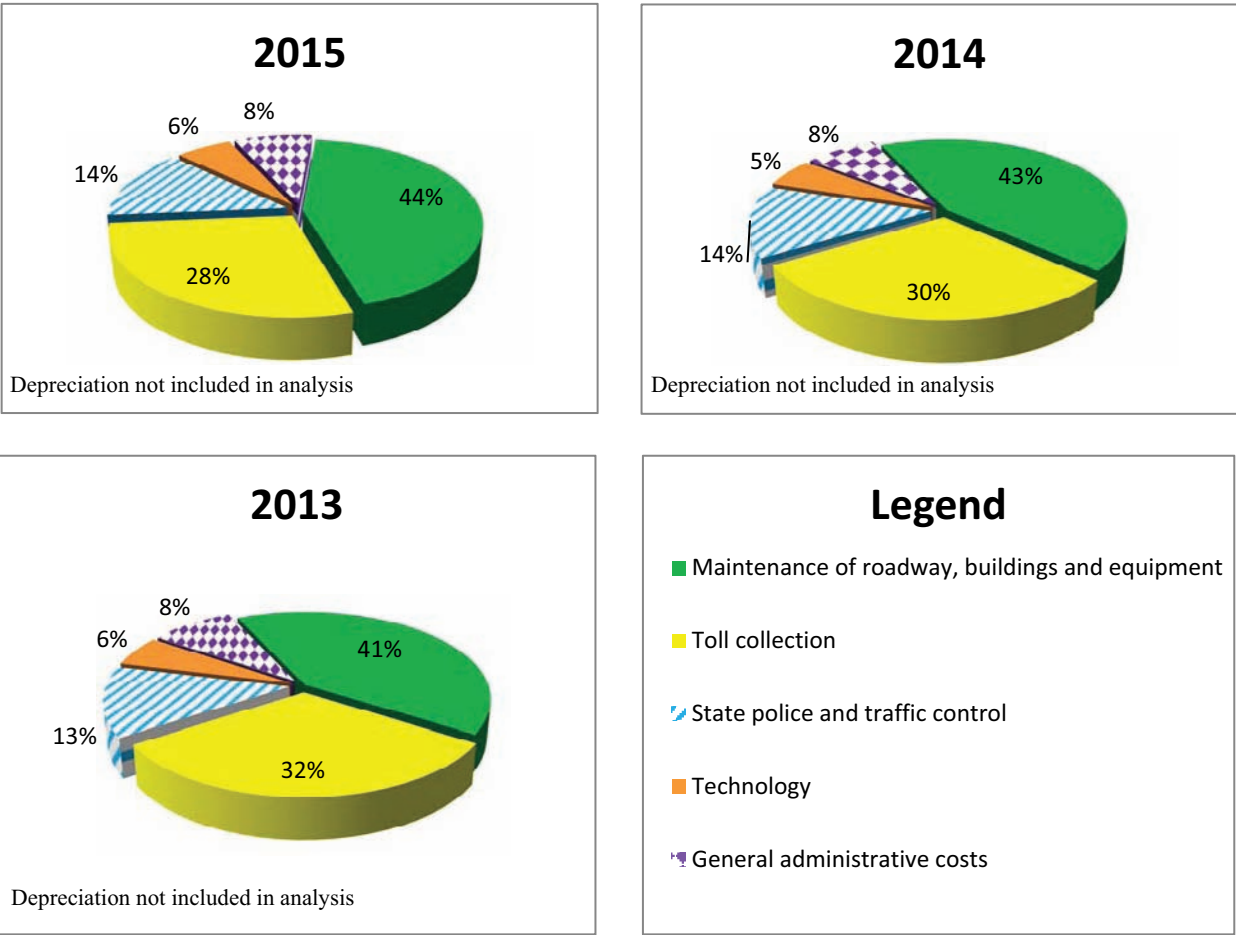
	2015	2014	2013
Toll Revenue - Turnpike	\$ 1,106,268	1,037,744	1,006,721
Toll Revenue - Parkway	416,865	408,004	407,044
Total Toll Revenue	\$ 1,523,133	1,445,748	1,413,765
Lane Miles (actual) - Turnpike	1,819	1,819	1,586
Lane Miles (actual) - Parkway	1,757	1,687	1,687
Total Lane Miles (actual)	3,576	3,506	3,273
Revenue per Lane Mile - Turnpike	\$ 608	571	635
Revenue per Lane Mile - Parkway	\$ 237	242	241
Revenue per Lane Mile - Authority	\$ 426	412	432

**Operating Cost per Lane Mile** – Operating expenses shown below include maintenance, toll collection, state police and traffic control, technology and general and administrative expenses but excludes depreciation. From 2014 to 2015, there was a slight increase in the operating cost per lane mile which can be attributed to an increase in maintenance expenses (see below for further breakout of operating costs). From 2013 to 2014, operating cost per lane mile decreased due to the increase in the lane miles on the Turnpike. The increase in lane miles occurred late in the year, and the timing distorts the calculation in a positive way in 2014. Overall, despite an increase in lane miles of nearly 10%, the operating expenses per lane mile have decreased from 2015 as compared to 2013.

	2015	2014	2013
Total operating expenses	\$ 609,550	564,925	533,002
Lane Miles (actual) - Turnpike	1,819	1,819	1,586
Lane Miles (actual) - Parkway	1,757	1,687	1,687
Total Lane Miles	3,576	3,506	3,273
Operating cost Excluding Depreciation/Lane Mile - Authority	\$ 170	161	163



Operating Expense Breakdown (not including depreciation)



- As shown above, the Authority continues its commitment to provide well maintained, safe roadways by increasing the percentage of operating expenses spent on maintenance, state police and traffic control. The Authority has also endeavored to control its toll collection and general and administrative expenses, which continue to represent a smaller portion of total operating expense spending.



**Cost Recovery** – The cost recovery ratio is calculated by dividing operating revenues by operating expenses. Therefore, a ratio 1.0 or above is a positive sign as it indicates operating expenses are being fully recouped by operating revenues. The cost recovery ratio was over 2.0 in each of the years 2013 – 2015, which is a strong indicator of the Authority's ability to meet its operating expenses with its operating revenues. From 2014 to 2015, the cost recovery ratio remained relatively unchanged despite an increase in operating expenses primarily due to an increase in the non-cash portion of the annual OPEB and pension cost. From 2013 to 2014, the ratio declined slightly as operating expenses increased due to a significant increase in snow and severe weather costs in 2014.

		2015	2014	2013
Operating Revenue	\$	1,632,023	1,549,740	1,513,464
Operating Expenses (excluding depreciation)	\$	609,550	564,925	533,002
Cost Recovery		2.68	2.74	2.84

### Financial Management Principles and Guidelines

In December 2012, the Authority adopted its "Financial Management Principles and Guidelines" (the Guidelines). Among the policies established, the Authority will manage its toll rates, expense budget and debt issuance program to achieve minimum senior debt service coverage of 1.4x and total requirement coverage of 1.2x. The Authority will also manage its cash flow and total expenditure levels such that it maintains average unrestricted cash balance in the General Reserve Fund equal to at least \$75,000. In November 2015, the Authority amended its Guidelines, which now target an average unrestricted cash balance in the General Reserve Fund equal to at least \$100,000. The Guidelines are implemented at the discretion of the Authority and are not a legal covenant with Bondholders. Such Guidelines can be changed or eliminated at any time at the discretion of the Authority. As specified in the Guidelines, the Authority also adopted an Investment Rate Swap Management Plan in April 2013, an Investment Policy in September 2013, and a Debt Management Policy in January 2014. The Interest Rate Swap Management Plan was amended in November 2015 to clarify the procurement provisions of the plan based upon current market practices. These documents may be found on the Authority's website at <http://www.state.nj.us/turnpike/investor-relations.html>.

### Debt Administration

The issuance of new bonds is conducted in accordance with the New Jersey Turnpike Act of 1948, constituting Chapter 454 of the Laws of New Jersey of 1948, as amended and supplemented and the Turnpike Revenue Bond Resolution adopted on August 20, 1991, as amended, restated and supplemented. The issuance of new bonds requires the approval of the Board of Commissioners and prior approval in writing from the Governor and from either of both the State Treasurer and

the Director of the Division of Budget and Accounting of the Department of Treasury, payable solely from tolls and other revenues of the Authority. Bonds payable are shown below:

Series	2015	2014	2013
1991 Series (C)	\$ 67,160	67,160	67,160
2000 Series (B-G)	400,000	400,000	400,000
2003 Series (B)	70,005	234,210	382,775
2004 Series (B, C2)	301,496	297,261	289,110
2005 Series (A-B, D1-D4)	414,885	414,885	650,415
2009 Series (A-B, E-I)	2,193,945	2,336,445	2,336,445
2010 Series (A)	1,850,000	1,850,000	1,850,000
2011 Series (A-B)	—	—	125,000
2012 Series (A-B, G)	945,690	989,440	989,440
2013 Series (A-G)	2,116,295	2,280,630	2,280,630
2014 Series (A, B1-3, C)	1,301,860	1,326,860	—
2015 Series (A-H)	1,125,585	—	—
Premium and discount, net	464,242	428,080	315,032
<b>Total outstanding bonds</b>	<b>\$ 11,251,163</b>	<b>10,624,971</b>	<b>9,686,007</b>

#### 2015 – 2014

In accordance with its refunding plan, on January 29, 2015, the Authority issued \$142,500 of Series 2015A and 2015B Turnpike Revenue Bonds with a floating rate. The Series 2015A Turnpike Revenue Bonds bear interest at 67% of LIBOR plus 78 basis points (bp), and the Series 2015B Turnpike Revenue Bonds bear interest at 75% of LIBOR plus 45 bp. The interest on the Series 2015A and B Turnpike Revenue Bonds is paid monthly. The Series 2015A and 2015B Turnpike Revenue Bonds are direct purchase transactions and mature on January 1, 2024. The Authority issued the Series 2015A and 2015B Turnpike Revenue Bonds to fully refund the Series 2009A and 2009B Bonds Turnpike Revenue Bonds, respectively, in order to eliminate the need for letters of credit, which were expiring in February 2015. The existing interest rate swaps on the Series 2009A and 2009B Turnpike Revenue Bonds were re-identified to the Series 2015A and Series 2015B Turnpike Revenue Bonds.

On September 18, 2015, the Authority issued \$87,500 of Series 2015C and 2015D Turnpike Revenue Bonds with a floating rate. The Series 2015C Turnpike Revenue Bonds bear interest at 67% if LIBOR plus 70 bp, and the Series 2015D Floating Rate Bonds bear interest at 67% of LIBOR plus 70 bp. The interest on the Series 2015C and 2015D Turnpike Revenue Bonds is paid monthly. The Series 2015C and 2015D Turnpike Revenue Bonds are direct purchase transactions and mature on January 1, 2024. The Authority issued the Series 2015C and 2015D Turnpike Revenue Bonds to fully refund and avoid the mandatory tender date on the Series 2012G and 2013G Turnpike Revenue Bonds, respectively. The existing interest rate swaps on the Series 2012G and Series 2013G Turnpike Revenue Bonds were re-identified to the Series 2015C and Series 2015D Turnpike Revenue Bonds.

On October 22, 2015, the Authority issued \$750,000 of Series 2015E Turnpike Revenue Bonds. The bonds bear interest at fixed rates from 3.375% to 5.0%, and mature from January 1, 2031 to January 1, 2045. The interest on the Series 2015E bonds is paid semi-annually. The purpose of the Series 2015E Turnpike Revenue Bonds was to (i) continue to fund projects under the \$7 Billion

CIP, (ii) make a deposit to the Debt Reserve Fund, and (iii) pay the costs of issuance of the Series 2015E Turnpike Revenue Bonds.

On December 23, 2015, the Authority issued \$145,585 of Series 2015F, 2015G and 2015H Turnpike Revenue Bonds with a floating rate. The Series 2015F Turnpike Revenue Bonds bear interest at 75% of LIBOR plus 59.5 bp. The Series 2015G Turnpike Revenue Bonds bear interest at 69.75% of LIBOR plus 60 bp. The Series 2015H Turnpike Revenue Bonds bear interest at 67% of LIBOR plus 74 bp. The interest on the Series 2015F, 2015G and 2015H Floating Rate Bonds is paid monthly. The Series 2015F, 2015G and 2015H Turnpike Revenue Bonds are direct purchase transactions. The Series 2015F and 2015H Turnpike Revenue Bonds mature on January 1, 2022 and the Series 2015G Turnpike Revenue Bonds mature January 1, 2024. The Authority issued the Series 2015F, 2015G and 2015H Turnpike Revenue Bonds to fully refund and avoid the mandatory tender date on the Series 2013D-1, Series 2014B-1 and Series 2013E-1 Turnpike Revenue Bonds, respectively. The existing interest rate swaps on the Series 2013D-1, Series 2014B-1 and Series 2013E-1 Turnpike Revenue Bonds were re-identified to the Series 2015F, Series 2015G and Series 2015H Turnpike Revenue Bonds.

The Authority did not refund any fixed rate bonds in 2015. The Series 2015A and Series 2015B Turnpike Revenue Bonds were issued to reduce bank credit risk by eliminating the need for a letter of credit. The Series 2015C, Series 2015D, Series 2015F, Series 2015G and Series 2015H Turnpike Revenue Bonds were issued to meet the mandatory tender dates on the bonds being refunded and avoid interest rate escalation costs.

The rating agencies assigned the following ratings to the Series 2015 Turnpike Revenue Bonds: Moody's A3, S&P A+ and Fitch A.

#### **2014 – 2013**

On May 22, 2014, the Authority issued \$1,000,000 of Series 2014A Turnpike Revenue Bonds. The bonds bear interest at fixed rates from 4.00% to 5.00% and mature from January 1, 2027 to January 1, 2035. The interest on the Series 2014A Turnpike Revenue Bonds is paid semi-annually. The purpose of the Series 2014A Turnpike Revenue Bonds was to (i) continue to fund projects under the \$7 Billion CIP, (ii) make a deposit to the Debt Reserve Fund, (iii) capitalize a portion of the interest payable of the Series 2014A Turnpike Revenue Bonds from their Date of Delivery through May 22, 2016, and (iv) pay the costs of issuance of the Series 2014A Turnpike Revenue Bonds.

On August 4, 2014, the Authority issued \$125,000 of Series 2014B-1, 2014B-2 and 2014B-3 (Series 2014B) Turnpike Revenue Bonds with a floating rate. The purpose of the Series 2014B Turnpike Revenue Bonds was to pay the redemption price of all of the Series 2011A and Series 2011B Turnpike Revenue Bonds to avoid the mandatory tender on December 22, 2014. The Series 2014B Turnpike Revenue Bonds pay interest at a floating rate of 67% of one-month LIBOR plus 27 basis points for Series 2014B-1, plus 42 basis points for Series 2014B-2 and plus 57 basis points for Series 2014B-3. The interest rate resets monthly and interest is paid monthly. The existing interest rate swaps on the Series 2011A and 2011B Turnpike Revenue Bonds were re-identified to the Series 2014B Turnpike Revenue Bonds.

On October 7, 2014, the Authority issued \$201,860 of Series 2014C Turnpike Revenue Bonds. The bonds bear interest at a fixed rate of 5% and mature from January 1, 2019 to January 1, 2025. The interest on the Series 2014C Turnpike Revenue Bonds is paid semi-annually. The purpose of the Series 2014C Turnpike Revenue Bonds was to refund and defease a portion of the Authority’s Series 2005A Bonds.

The total savings on the Series 2014C Turnpike Revenue Bonds was approximately \$38,473 when compared to the projected interest costs on the refunded bonds. The refunding resulted in a loss on defeasance of \$4,935 in 2014, which is being amortized over the life of the new bonds.

The rating agencies assigned the following ratings to the Series 2014A, Series 2014B, and 2014C Turnpike Revenue Bonds: Moody’s A3, S&P A+ and Fitch A.

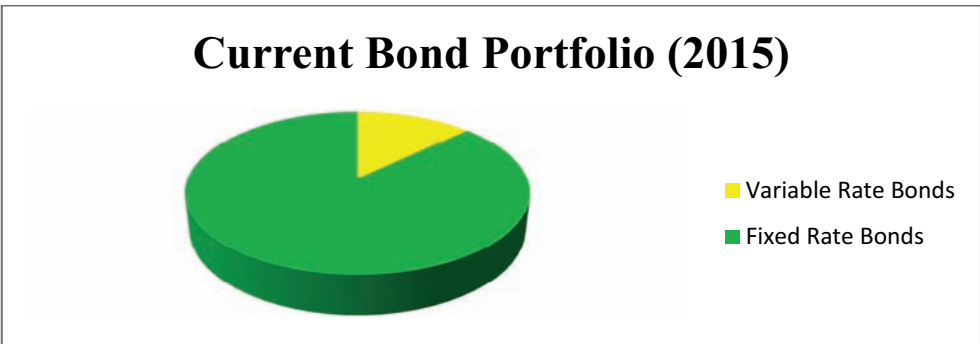
**Build America Bond Subsidy Payments**

The Authority’s Series 2009F and Series 2010A Turnpike Revenue Bonds were issued as Build America Bonds (BAB). The BAB program was authorized by the American Recovery and Reinvestment act enacted in February 2009 to encourage local spending on new construction. Under the program, the U.S. Treasury makes a direct payment to the Authority originally equal to 35% of the interest expense for eligible bonds.

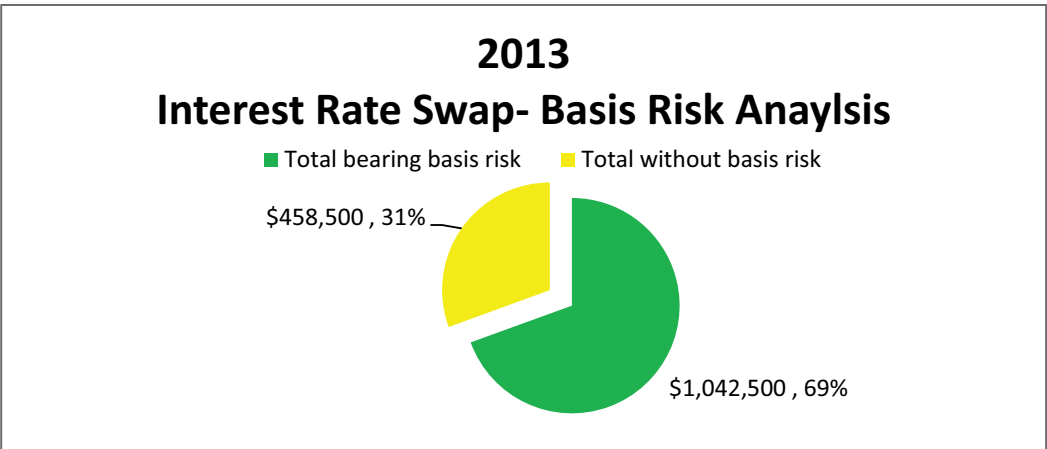
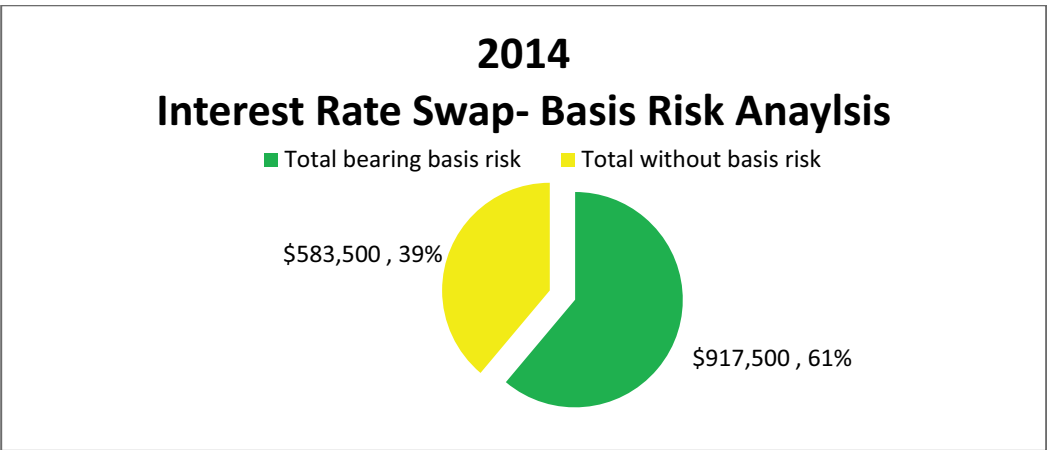
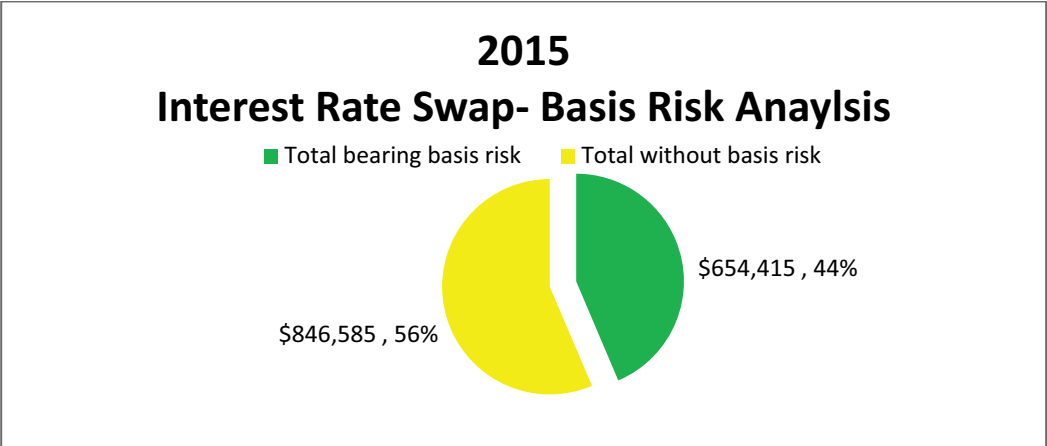
The Budget Control Act of 2011 reduced the amount of the subsidy paid by the Federal Government through automatic federal spending cuts commonly known as sequestration. The payment to the Authority received in June 2013 (for July 1, 2013 interest payment) was reduced by 8.7%, or \$3,552 and the payments received in December 2013 (for January 1, 2014 interest payment) and June 2014 (for July 1, 2014 interest payment) were reduced by 7.2%, or \$2,940. The payment received in June 2015 (for July 1, 2015) was reduced by \$2,980 or 7.3% and the payment received in December 2015 (for January 1, 2016) was reduced by \$2,777 or 6.8%. The Internal Revenue Service has reported that the Authority’s payment due on July 1, 2016 will also have a 6.8% reduction. There can be no certainty the Federal Government will not make further cuts to the program.

**Debt Portfolio**

The Authority’s bond portfolio at December 31, 2015 comprises 86% fixed rate bonds and only 14% of variable rate bonds. These percentages are within the Authority’s Guidelines, which limit variable rate bonds to 20% of total bonds outstanding.



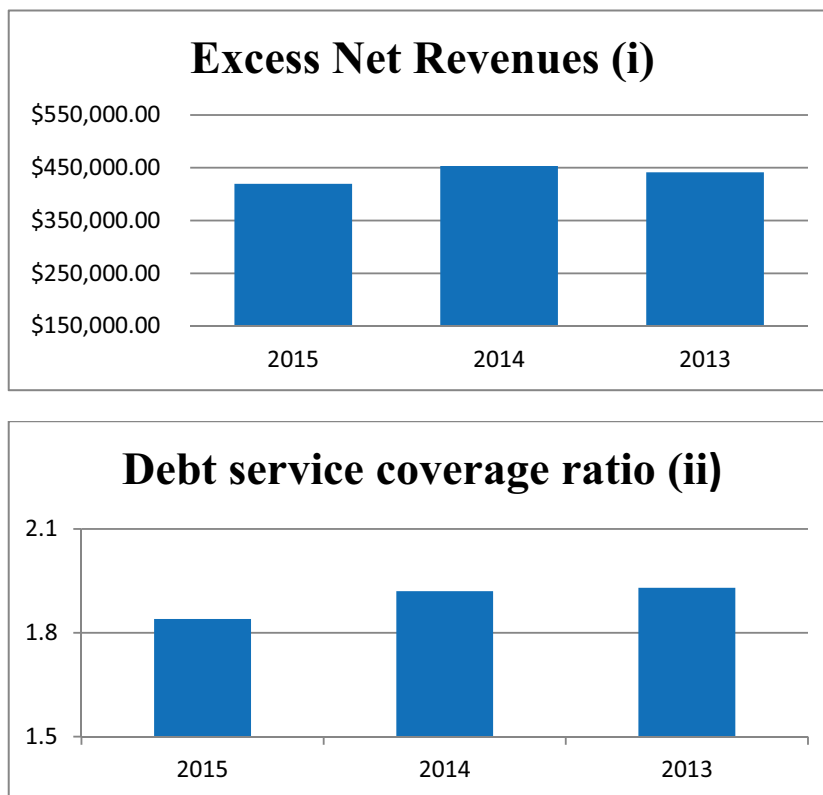
The Authority is actively reducing the basis risk on its interest rate swap portfolio when possible. From 2014 to 2015, the variable rate bonds bearing basis risk was reduced from 61% to 44%. From 2013 to 2014, the variable rate bonds bearing basis risk was reduced from 69% to 61%.



## Debt Service Coverage

The Revenue Requirement under Section 713(b) of the Turnpike Revenue Bond Resolution states that in each calendar year, Net Revenues shall at least equal the Net Revenue Requirement for such year. The Net Revenue Requirement means with respect to any period of time, "an amount equal to the greater of (i) the sum of Aggregate Debt Service, Maintenance Reserve Payments, Special Project Reserve Payments and payments, if any, to the Charges Fund for such period or (ii) 1.20 times the Aggregate Debt Service for such period."

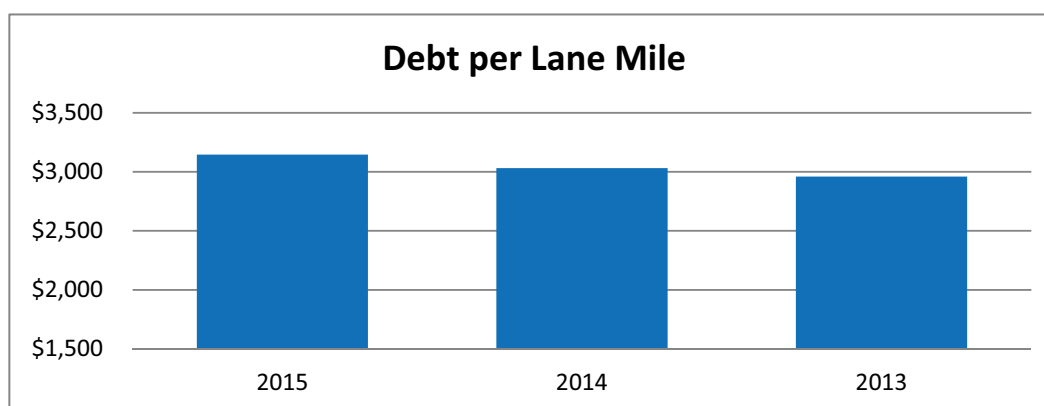
	<u>2015</u>	<u>2014</u>	<u>2013</u>
(i)			
Net revenue available for debt service	\$ 1,218,845	1,166,909	1,128,375
Less net revenue requirements (the sum of aggregate debt service, maintenance reserve, special project reserve and charges funds payments)	<u>(799,320)</u>	<u>(713,660)</u>	<u>(686,836)</u>
Excess net revenues	<u>\$ 419,525</u>	<u>453,249</u>	<u>441,539</u>
(ii)			
Net revenue available for debt service	\$ 1,218,845	1,166,909	1,128,375
Less net revenue requirements computed under test (120% of aggregate debt service requirements)	<u>(793,711)</u>	<u>(730,675)</u>	<u>(701,727)</u>
Excess net revenues	<u>\$ 425,134</u>	<u>436,234</u>	<u>426,648</u>
Net revenue available for debt service	\$ 1,218,845	1,166,909	1,128,375
Debt service requirements	\$ 661,426	608,896	584,772
Debt service coverage ratio	1.84	1.92	1.93



The debt service coverage ratio has gone down slightly in 2015 as compared to 2014, due to an increase in the debt service requirements as a result of the interest costs from the continued financing of the Authority's \$7 Billion CIP. The slight decrease had been projected, and the coverage ratio in each of the three years 2013 – 2015 remains well above the 1.20 requirement of the Bond Resolution and the 1.40 target of the Guidelines.

**Debt per Lane Mile** – From 2014 to 2015 debt per lane mile increased slightly by \$115,787 primarily due to the issuance of the \$750,000 Series 2015E Turnpike Revenue Bonds in November 2015. The debt per lane mile changed from 2013 (\$2,959,367) to 2014 (\$3,030,511) was due to the substantial increase in lane miles due to the widening between Interchanges 6 and 9 on the Turnpike as the debt was issued in advance of the lane miles coming into service.

		<b>2015</b>	<b>2014</b>	<b>2013</b>
Bond indebtedness, net	\$	11,251,163	10,624,971	9,686,007
Lane Miles (actual) – Turnpike		1,819	1,819	1,586
Lane Miles (actual) – Parkway		1,757	1,687	1,687
Total Lane Miles (actual)		<u>3,576</u>	<u>3,506</u>	<u>3,273</u>
Debt per Lane Mile – Authority	\$	3,146	3,031	2,959



### Contacting Authority's Financial Management

The purpose of this narrative and the attached exhibits was to assist the readers in obtaining a general overview of the Authority's business and finances. If you should have any questions about this report or need clarification on its contents, please contact the Chief Financial Officer of the New Jersey Turnpike Authority, P.O. Box 5042, Woodbridge, New Jersey 07095-5042 or via email at [info@turnpike.state.nj.us](mailto:info@turnpike.state.nj.us).



**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Statements of Net Position

December 31, 2015 and 2014

(In thousands)

<b>Assets</b>	<b>2015</b>	<b>2014</b>
Current assets:		
Cash	\$ 175,889	202,456
Restricted cash	161,231	87,276
Investments	591,133	502,669
Restricted investments	489,802	569,949
Receivables, net of allowance	82,289	56,180
Restricted receivables	—	75
Inventory	20,105	20,474
Due from State of New Jersey	560	508
Restricted deposits	27,160	25,336
Prepaid expenses	4,077	3,943
Total current assets	<u>1,552,246</u>	<u>1,468,866</u>
Noncurrent assets:		
Restricted investments	1,190,230	1,164,147
Capital assets, net of accumulated depreciation	10,801,091	10,033,353
Total noncurrent assets	<u>11,991,321</u>	<u>11,197,500</u>
Total assets	<u>\$ 13,543,567</u>	<u>12,666,366</u>
<b>Deferred Outflows</b>		
Deferred outflows:		
Accumulated decrease in fair value of hedging derivatives	\$ 4,807	6,067
Deferred amount on refunding	149,697	162,311
Deferred amount relating to pensions	65,426	19,849
Total deferred outflows	<u>\$ 219,930</u>	<u>188,227</u>
<b>Liabilities</b>		
Current liabilities:		
Accounts payable and accrued expenses	\$ 187,261	167,657
Funds held in trust	240,202	216,773
Due to State of New Jersey	2,683	2,594
Accrued interest payable	260,102	255,972
Unearned revenue	42,347	50,467
Current portion of bonds payable	142,115	164,205
Current portion of hybrid instrument borrowing	19,012	23,226
Current portion of other long-term liabilities	9,457	7,854
Total current liabilities	<u>903,179</u>	<u>888,748</u>
Noncurrent liabilities:		
Bonds payable, net	11,109,048	10,460,766
Hybrid instrument borrowing	92,514	106,955
Other long-term liabilities	135,733	102,561
Other postemployment benefits liability	375,864	319,906
Interest rate swap liabilities	40,199	45,366
Net pension liability	435,015	366,300
Total noncurrent liabilities	<u>12,188,373</u>	<u>11,401,854</u>
Total liabilities	<u>\$ 13,091,552</u>	<u>12,290,602</u>
<b>Deferred Inflows</b>		
Deferred inflows:		
Deferred amount relating to pensions	\$ 13,655	26,376
Total deferred inflows	<u>\$ 13,655</u>	<u>26,376</u>
<b>Net Position</b>		
Net position:		
Net investment in capital assets	\$ 858,384	710,972
Restricted under trust agreements	164,511	183,764
Unrestricted	<u>(364,605)</u>	<u>(357,121)</u>
Total net position	<u>\$ 658,290</u>	<u>537,615</u>

See accompanying notes to basic financial statements.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Statements of Revenues, Expenses, and Changes in Net Position

Years ended December 31, 2015 and 2014

(In thousands)

	<u>2015</u>	<u>2014</u>
Operating revenues:		
Toll revenue	\$ 1,523,133	1,445,748
E-ZPass fees	56,262	52,773
Concession revenue	38,993	36,842
Miscellaneous revenue	13,635	14,377
Total operating revenues	<u>1,632,023</u>	<u>1,549,740</u>
Operating expenses:		
Maintenance of roadway, buildings, and equipment	268,001	245,269
Toll collection	172,624	168,898
State police and traffic control	82,007	76,469
Technology	36,404	30,936
General administrative costs	50,514	43,353
Depreciation	316,377	201,001
Total operating expenses	<u>925,927</u>	<u>765,926</u>
Operating income	<u>706,096</u>	<u>783,814</u>
Nonoperating revenues (expenses):		
Build America Bonds subsidy	75,908	75,745
Payments to the State of New Jersey	(354,001)	(354,001)
Interest expense, Turnpike Revenue Bonds	(310,363)	(205,195)
Other bond expenses	(2,752)	(4,738)
Sale of capital assets	(248)	(4,763)
Investment income (loss)	2,403	(32,312)
Arts Center	3,632	3,530
Total nonoperating revenues (expenses), net	<u>(585,421)</u>	<u>(521,734)</u>
Change in net position	120,675	262,080
Net position – beginning of year	537,615	669,787
Cumulative effect of adoption of GASB 68 (note 2(t))	—	(394,252)
Net position – end of year	<u>\$ 658,290</u>	<u>537,615</u>

See accompanying notes to basic financial statements.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Statements of Cash Flows

Years ended December 31, 2015 and 2014

(In thousands)

	<u>2015</u>	<u>2014</u>
Cash flows from operating activities:		
Receipts from customers and patrons	\$ 1,618,021	1,551,259
Payments to suppliers	(274,264)	(246,828)
Payments to employees	(162,012)	(163,938)
Payments for self-insured health benefit claims	(88,620)	(85,191)
Net cash provided by operating activities	<u>1,093,125</u>	<u>1,055,302</u>
Cash flows from noncapital financing activities:		
Payments to State of New Jersey	(354,001)	(354,001)
Proceeds from Arts Center	3,632	3,530
Net cash used in noncapital financing activities	<u>(350,369)</u>	<u>(350,471)</u>
Cash flows from capital and related financing activities:		
Proceeds acquired from new capital debt	1,201,708	1,479,788
Purchases and sales of capital assets, net	(1,046,537)	(1,176,778)
Principal paid on capital debt	(164,205)	(148,565)
Refunded capital debt	(375,585)	(360,530)
Proceeds from Build America Bonds subsidy	75,908	75,745
Interest paid on capital debt	(391,552)	(235,894)
Payments for bond expenses	(2,752)	(4,738)
Net cash used in capital and related financing activities	<u>(703,015)</u>	<u>(370,972)</u>
Cash flows from investing activities:		
Purchases of investments	(8,367,022)	(7,648,226)
Sales and maturities of investments	8,332,854	7,289,669
Interest received	41,815	35,392
Net cash provided by (used in) investing activities	<u>7,647</u>	<u>(323,165)</u>
Net increase in cash	47,388	10,694
Cash – beginning of year	289,732	279,038
Cash – end of year	<u>\$ 337,120</u>	<u>289,732</u>
Reconciliation of operating income to net cash provided by operating activities:		
Operating income	\$ 706,096	783,814
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation expense	316,377	201,001
Changes in assets and liabilities:		
Receivables	(26,085)	21,920
Inventory	370	(1,783)
Other assets	(135)	316
Accounts payable and accrued expenses	2,945	3,840
Unearned revenue	(8,120)	(1,404)
Other liabilities	36,863	10,166
Other postemployment benefit liability	55,958	37,059
Net pension liability	68,714	(12,998)
Deferred outflows of resources related to pension	(45,575)	(11,773)
Deferred inflows of resources related to pension	(12,722)	26,376
Pollution remediation liability	(1,561)	(1,232)
Net cash provided by operating activities	<u>\$ 1,093,125</u>	<u>1,055,302</u>

See accompanying notes to basic financial statements.

**(1) Organization**

The New Jersey Turnpike Authority (the Authority) is a body corporate and politic created by the New Jersey Turnpike Authority Act of 1948, as amended, restated and supplemented (the Act). The Act authorizes the Authority to construct, maintain, repair, and operate the New Jersey Turnpike (the Turnpike System) projects at locations established by law, to fix and establish tolls for the use of the Turnpike System, and to issue Turnpike revenue bonds or notes of the Authority, subject to prior approval in writing from the Governor and from either or both the State Treasurer and the Director of the Division of Budget and Accounting of the Department of the Treasury, payable solely from tolls and other revenues of the Authority. Under the provisions of the Act, the Turnpike bonds or notes and the interest thereon shall not be deemed to constitute a debt or liability or a pledge of the faith and credit of the State or any political subdivision thereof.

On May 27, 2003, the Act was amended. The amendment empowered the Turnpike Authority, effective at the Transfer Date, which was July 9, 2003, to assume all powers, rights, obligations and duties of the New Jersey Highway Authority (the Highway Authority), which owned and operated the Garden State Parkway and the PNC Bank Arts Center.

The Authority has no stockholders or equity holders and all bond proceeds, revenues or other cash received must be applied for specific purposes in accordance with the provisions of the above Act and the Turnpike Revenue Bond Resolution of 1991 as amended, restated and supplemented (the Bond Resolution) for security of the bondholders. The Authority's board of commissioners is comprised of eight members as follows: the Commissioner of the New Jersey Department of Transportation, ex officio, or his designee; five members appointed by the Governor with the advice and consent of the Senate, and two members appointed by the Governor, one upon the recommendation of the President of the Senate and one upon the recommendation of the Speaker of the General Assembly. As of December 31, 2015, one seat was vacant, with all seats filled as of December 31, 2014.

The Act provides that the Governor shall have the right to veto any action of the Authority, and that the prior written approval of the Governor and either the State Treasurer or the Director of the Division of Budget and Accounting in the Department of the Treasury shall be obtained prior to adoption of any bond resolution or revision of tolls.

**(2) Summary of Significant Accounting Policies**

**(a) Reporting Entity**

The Governmental Accounting Standards Board (GASB) establishes the criteria used in determining which organizations should be included in these financial statements. The GASB's Codification of Governmental Accounting and Financial Reporting Standards, Section 2100, requires the inclusion of government organizations for which the Authority is financially accountable. Financial accountability is defined as: 1) appointment of a voting majority of the component unit's board and either (a) the ability to impose will by the primary government or (b) the possibility that the component unit will provide a financial benefit to or impose a financial burden on the primary government; or 2) fiscal dependency on the primary government.

The Garden State Arts Foundation, Inc. (the Foundation) (see note 14) is included in the financial statements presented in accordance with accounting principles generally accepted in the United States of America as a blended component unit. Although legally separate from the Authority, the Foundation's members include the Commissioners of the Authority, who represent a voting majority of the Foundation's members.

Additionally, the Authority is a component unit of the State of New Jersey, and its financial statements are included in the State of New Jersey's Comprehensive Annual Financial Report.

**(b) Basis of Accounting**

The Authority's activities are accounted for using the flow of economic resources measurement focus and the accrual basis of accounting. All assets, liabilities, net position, revenues and expenses are accounted for as an enterprise fund with revenues recorded when earned and expenses recorded at the time liabilities are incurred.

The Authority follows the pronouncements of the GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, which requires the Authority to follow the pronouncements of the GASB in its accounting and financial reporting.

**(c) Capital Assets**

**Capitalization Policy**

The cost to construct, acquire or replace an existing asset (or otherwise prolong the useful life of an existing asset) is capitalized under the Authority's capitalization policy. The capitalization threshold is \$50 and includes equipment valued over \$50 or any purchase related to a capital project whose project value exceeds \$50.

Capital assets are reported at cost, including all ancillary charges necessary to place the assets in their intended location and condition for use. If land is purchased, the capitalized amount includes the purchase price plus costs such as legal fees, filling, and excavation costs incurred to put the land in condition for its intended use. The capitalized amounts for building include both acquisition and capital improvement costs and net construction period interest.

An asset is deemed substantially complete when the structure or project is ready for the purpose for which it was constructed.

### Depreciation Policy

Capital assets are depreciated using straight-line method over their estimated useful lives as follows:

Road bed	100 years
Road surface	5–10 years
Major bridge repairs	20 years
Bridges:	
Bridges piers and abutments	75 years
Bridges deck	40 years
Bridge spans	40 years
Buildings and sound barriers	35 years
Equipment	3–15 years

#### (d) Investments

Investments are reported at fair value based on quoted market prices, except for time deposits and certificates of deposit, which are reported at cost plus accrued interest. All investment income, including changes in the fair value of investments, is reported as non-operating revenue.

#### Authorized Investments – Investment Policy

The investment policies of the Authority are established in conformity with the Investment Policy adopted by the Board of Commissioners on September 24, 2013, which defines investment securities to mean any of the following securities legal for investment of the Authority's funds at the time of the purchase thereof:

- (i) Federal securities, which are (a) any direct and general obligations of, or any obligations guaranteed by, the United States of America, including but not limited to interest obligations of the Resolution Funding Corporation or any successor thereto, (b) any obligations of any state or political subdivision of a state (collectively Municipal Bonds) which Municipal Bonds are fully secured as to principal and interest by an irrevocable pledge of moneys or direct and general obligations of, or obligations guaranteed by, the United States of America, which moneys or obligations are segregated in trust and pledged for the benefit of the holders of the Municipal Bonds, and (c) certificates of ownership of the principal or interest of direct and general obligations of, or obligations 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;
- (ii) Bonds, debentures, notes or other evidences of indebtedness issued by any agency or instrumentality of the United States to the extent such obligations are guaranteed by the United States or by another such agency the obligations (including guarantees) of which are guaranteed by the United States;
- (iii) Bonds, debentures, notes or other evidences of indebtedness issued by any of the following agencies: Government National Mortgage Association, Federal Land Banks, Federal Agency Notes, Federal Intermediate Credit Banks, Banks for Cooperatives, Tennessee Valley Authority, United States Postal Service,

Farmers Home Administration, Export-Import Bank, Federal Financing Bank and Student Loan Marketing Association;

- (iv) Negotiable or nonnegotiable certificates of deposit issued by any bank, trust company or national banking association, which certificates of deposit shall be continuously secured or collateralized by obligations described in subparagraphs (i) or (ii) of this definition, which shall have a market value (exclusive of accrued interest) at all times at least equal to the principal amount of such certificates of deposit and shall be lodged with the Trustee, as custodian, by the bank, trust company or national banking association issuing such certificates of deposit;
- (v) Uncollateralized negotiable or nonnegotiable certificates of deposit issued by any bank, trust company or national banking association, the unsecured obligations of which are rated in one of the two highest rating categories, without regard to rating sub-categories, by Moody's and Standard & Poor's (S&P);
- (vi) Repurchase agreements collateralized by obligations described in subparagraphs (i), (ii) or (iii) of this definition with any registered broker/dealer subject to the Securities Investors' Protection Corporation jurisdiction, which has an uninsured, unsecured and unguaranteed obligation rated Prime-1 or A3 or better by Moody's and A-1 or A or better by S&P, or any commercial bank with the above ratings, provided:
  - (a) master repurchase agreement or specific written repurchase agreement governs the transaction, which characterizes the transaction as a purchase and sale of securities,
  - (b) the securities are held free and clear of any lien, by the Trustee or an independent third party acting solely as agent for the Trustee, and such third party is (i) a Federal Reserve Bank, (ii) a bank which is a member of the FDIC and which has combined capital, surplus, and undivided profits of not less than \$75,000, or (iii) a bank approved in writing for such purpose by each Credit Issuer, if any, and the Trustee shall have received written confirmation from such third party that it holds such securities, free and clear of any lien, as agent for the Trustee,
  - (c) a perfected first security interest under the Uniform Commerce Code, or book entry procedures prescribed at 31 CFR 306.1 et seq. or 31 CFR 350.0 et seq. or a successor provision in such securities is created for the benefit of the Trustee,
  - (d) the repurchase agreement has a term of six months or less, or the Authority will value the collateral securities no less frequently than monthly and will liquidate the collateral securities if any deficiency in the required collateral percentage is not restored within two business days of such valuation,
  - (e) the repurchase agreement matures on or before a debt service payment date (or other appropriate liquidation period), and
  - (f) the fair market value of the securities in relation to the amount of the repurchase obligation is equal to at least 100%.

- (vii) Banker's acceptances, Eurodollar deposits and certificates of deposit (in addition to the certificates of deposit provided for by subparagraphs (iv) and (v) above) of the domestic branches of foreign banks having a capital and surplus of \$1,000,000 or more, or any bank or trust company organized under the laws of the United States of America or Canada, or any state or province thereof, having capital and surplus, in the amount of \$1,000,000; provided that the aggregate maturity value of all such bankers acceptances and certificates of deposit held at any time as investments of funds under this Resolution with respect to any particular bank, trust company, or national association shall not exceed 5% of its capital and surplus; and provided further that any such bank, trust company, or national association shall be rated in one of the two highest rating categories, without regard to rating sub-categories, by both Moody's and S&P;
- (viii) Other obligations of the United States of America or any agency thereof which may then be purchased with funds belonging to the State of New Jersey or which are legal investments for savings banks in the State of New Jersey;
- (ix) Deposits in the New Jersey Cash Management Fund;
- (x) Obligations of any state, commonwealth or possession of the United States or a political subdivision thereof or any agency or instrumentality of such a state, commonwealth, possession or political subdivision, provided that at the time of their purchase such obligations are rated in either of the two highest rating categories by both Moody's and S&P; and
- (xi) Commercial paper with a maturity date not in excess of 270 days rated A-1+ by S&P and P-1 by Moody's at the time of such investment, issued by an entity incorporated under the laws of the United States or any state thereof.



**(e) Accounts Receivable**

Accounts receivable consist of various tolls, charges and amounts due from individuals, commercial companies and other agencies and concession revenues receivable from operators of food and fuel concessions at the service plazas. Toll accounts receivable from E-ZPass postpaid customers are collateralized by a surety bond or cash. Reserves for uncollectible accounts receivable are established based on specific identification and historical experience. Toll accounts receivable from other agencies are guaranteed under an Interagency Group Reciprocity Agreement.

**(f) Inventories**

Inventories are reported at average cost basis. Inventories consist of stock (includes materials to maintain the roadway and vehicles), E-ZPass transponders, fuel (gas and diesel), and rock salt/calcium chloride.

**(g) Deposits**

Deposits consist mainly of collateral deposits for owner controlled insurance policies relating to the Authority's worker's compensation program.

**(h) Net Capitalized Interest**

Net Interest Costs on funds borrowed to finance the construction or acquisition of certain capital assets, during the period of construction or acquisition, are capitalized and depreciated over the life of the related assets placed in service. The Authority capitalized net interest expense of \$196,880 and \$306,629 during the years ended December 31, 2015 and 2014, respectively.

**(i) Bonds Payable**

Bonds payable consist of the total amount of outstanding bonds plus unamortized premiums and less unamortized discounts.

**(j) Compensated Absences**

The Authority accrues employees' unused sick leave and vacation time to be used at a later date or paid in cash upon termination or retirement from the Authority. The liability for sick leave is based on application dates and limits vary based upon the employee's specific contract and effective dates. The liability for unused vacation is calculated based on years of service, and the terms of the relevant labor agreement. The liability for both amounts is calculated based on the pay and salary rates in effect at the statement of net position date.

**(k) Funds Held in Trust**

Included in the December 31, 2015 and 2014 statements of net position is approximately \$31,466 and \$36,250, respectively, for amounts retained from contractors and engineers and approximately \$205,200 and \$176,400, respectively, received primarily from New Jersey E-ZPass Customer Service Center customers for E-ZPass tag deposits and account prepayments.

**(l) Unearned Revenue**

The New Jersey Turnpike Authority recognizes revenue when earned. Amounts received in advance of the periods in which related services are rendered are recorded as a liability, which consists of pre-funding from the Pennsylvania Turnpike Commission for cost sharing construction work and prepayment of rent by customers for the use of the Authority's fiber optic lines and communication towers.

**(m) Deferred Outflows and Deferred Inflows of Resources**

Deferred outflows include change in fair value of hedging derivatives, deferred amount on refunding and deferred amount relating to pensions. Deferred outflows of resources are a consumption of net position that is applicable to a future reporting period.

Deferred inflows include deferred amount relating to pensions. Deferred inflows of resources are an increase in net position that is applicable to a future reporting period.

Accumulated decrease in fair value of hedging derivatives is resulting from the change due to deferred gain or loss and amortization of deferred gain or loss on interest rate swaps. Deferred amount on refunding is resulting from a loss in refinancing of debts due to difference between the reacquisition price and the net carrying amount of the old debt and is amortized over the life of the related debt. Deferred outflows and deferred inflows of resources are reported for differences between expected or projected results compared to actual results related to the Authority's proportionate share in the cost sharing pension plan as well as changes in the Authority's proportion of the plan from the prior period.

**(n) Net Position**

Net position is displayed in three components as follows:

Net investment in capital assets – This consists of capital assets, net of accumulated depreciation, less the outstanding balances of any bonds, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets.

Restricted under trust agreements – This consists of net position that is legally restricted by outside parties or by law through constitutional provisions or enabling legislation. When both restricted and unrestricted resources are available for use, generally it is the Authority's policy to use restricted resources first, and then unrestricted resources when they are needed.

Unrestricted – This consists of net position that does not meet the definition of "restricted" or "net investment in capital assets."

**(o) Toll Revenue**

Revenues from tolls are recognized in the period earned except for tolls collected through the violation enforcement process which are recognized when received. Pursuant to the provisions of the Bond Resolution, the Authority has covenanted to charge and collect such tolls as are required in order that in each calendar year net revenue shall at least equal the net revenue requirement under the aforementioned resolution. The Act authorizes the Authority to set tolls subject to prior approval in writing from the Governor and from either or both the State Treasurer and the Director of Budget and Accounting of the Department of the Treasury. The Act further provides

that the powers conferred upon the Governor and the Treasurer of the State described shall be exercised with due regard for the rights of the holders of bonds of the Authority at any time outstanding, and nothing in, or done pursuant to, the Act shall in any way limit, restrict or alter the obligation or powers of the Authority or officer of the Authority to carry out and perform in every detail each and every covenant, agreement or contract at any time made or entered into by or on behalf of the Authority with respect to its bonds or for the benefit, protection or security of the holders thereof.

#### **E-ZPass Fees**

E-ZPass fees consist of the Authority's share of fees and charges generated from the operation of the New Jersey E-ZPass Customer Service Center. This Customer Service Center is currently operated on behalf of the New Jersey Turnpike Authority, South Jersey Transportation Authority, Delaware River Port Authority, Delaware River Bay Authority, the Burlington County Bridge Commission and the Delaware River Joint Toll Bridge Commission by Xerox State and Local Solutions, Inc. The fees and charges consist primarily of the monthly membership fee charged to New Jersey E-ZPass account holders and the administrative fee collected from toll evaders. In addition, other fees are charged to E-ZPass account holders for such items as monthly statement delivery, transponders sales, lost and stolen transponders and returned checks. Revenue is also generated from leasing of the Authority's fiber optic network, allowing certain parking lots to accept E-ZPass as payment and interest on prepaid and tag deposit account balances. For financial reporting purposes, fees and charges are recognized when earned for all but administrative fees which are recognized when received from the patrons.

#### **(p) Classification of Revenues over Expenses**

The Authority has classified its revenues and expenses as either operating or non-operating.

Operating revenues include activities that have the characteristics of exchange transactions including tolls, E-Z Pass fees, rental fees received from concessionaires, and miscellaneous operating revenues. Non-operating revenue includes activities that have the characteristics of non-exchange transactions, such as the Build America Bonds subsidy and investment income.

Operating expenses include the costs of operating and maintaining the toll roads, administrative expenses, and depreciation on capital assets. All expenses not meeting this definition, including interest expense, are reported as non-operating expenses.

#### **(q) Income Taxes**

The Authority is exempt from federal income taxes under the Internal Revenue Code Section 115 and from state income taxes under N.J.S.A. 27:25-16. Accordingly, no provision is recorded for federal and state income taxes.

#### **(r) Pension and Other Postemployment Benefits**

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* (GASB 68), establishes standards for the measurement and reporting of the proportionate share of the net pension liability and pension expense. For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pension expense, information about the fiduciary net position of

the State of New Jersey Public Employees' Retirement System (PERS) and additions to/deductions from PERS fiduciary net position have been determined on the same basis as they are reported by PERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value. (See note 11).

GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions* (GASB 45), establishes standards for the measurement, recognition, and display of OPEB and related liabilities (assets), note disclosures, and, if applicable, required supplementary information in the financial reports of state and local governmental employers. OPEB includes postemployment healthcare, as well as other forms of postemployment benefits (e.g., life insurance) when provided separately from a pension plan. (See note 12).

**(s) Use of Estimates**

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**(t) Adoption of Accounting Pronouncement**

The Authority adopted GASB 68 in 2015. GASB 68 addresses accounting and financial reporting for pensions that are provided to the employees of state and local governmental employers. This statement establishes standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources, and expense related to pensions. Note disclosure and required supplementary information requirements about pensions also are addressed. For defined benefit pensions, this statement also identifies the methods and assumptions that should be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. In accordance with the provisions of GASB 68, the Authority has reported its proportionate share of State of New Jersey Public Employees' Retirement System (PERS) net pension liability, deferred outflows of resources, deferred inflows of resources, and pension expense.

The Authority also adopted GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date* (GASB 71). GASB 71 requires that, at transition, a government recognize a beginning deferred outflow of resources for its pension contributions, if any, made subsequent to the measurement date of the beginning net pension liability.

The provisions of GASB 68 and 71 have been applied to the 2014 beginning net position, and the 2014 financial statements have been restated. As a result of the implementation of GASB 68 and 71, beginning unrestricted net position as of January 1, 2014, was decreased by \$394,252. The following is a reconciliation of the 2014 amounts as previously reported to the total restated amounts:

### Summary of Net Position

	<b>2014 amounts as previously reported</b>	<b>Adjustments</b>	<b>2014 amounts as restated</b>
Deferred outflows:			
Accumulated decrease in fair value of hedging derivatives	\$ 6,067	—	6,067
Deferred amount on refunding	162,311	—	162,311
Deferred amount relating to pension	—	19,849	19,849
Total deferred outflows	<u>\$ 168,378</u>	<u>19,849</u>	<u>188,227</u>
Liabilities:			
Current liabilities	\$ 864,266	24,482	888,748
Noncurrent liabilities	11,035,554	366,300	11,401,854
Total liabilities	<u>\$ 11,899,820</u>	<u>390,782</u>	<u>12,290,602</u>
Deferred inflows:			
Deferred amount relating to pension	\$ —	26,376	26,376
Total deferred inflows	<u>\$ —</u>	<u>26,376</u>	<u>26,376</u>
Net position:			
Net investment in capital assets	\$ 710,972	—	710,972
Restricted under trust agreements	183,764	—	183,764
Unrestricted	40,188	(397,309)	(357,121)
Total net position	<u>\$ 934,924</u>	<u>(397,309)</u>	<u>537,615</u>

### Summary of Revenues, Expenses and Changes in Net Position

	<b>2014 amounts as previously reported</b>	<b>Adjustments</b>	<b>2014 amounts as restated</b>
Operating revenues	\$ 1,549,740	—	1,549,740
Operating expenses	(762,869)	(3,057)	(765,926)
Operating income	786,871	(3,057)	783,814
Nonoperating revenues (expenses)	(521,734)	—	(521,734)
Change in net position	265,137	(3,057)	262,080
Net position – Beginning of period	669,787	(394,252)	275,535
Net position – End of period	<u>\$ 934,924</u>	<u>(397,309)</u>	<u>537,615</u>

**(3) Cash and Investments**

The New Jersey Turnpike Authority is authorized to engage in investment activity pursuant to the Act, and the Bond Resolution. Specific investment policies and practices are set forth in certain sections of the Authority's Investment Policy adopted on September 24, 2013. These guidelines are adhered to by the Authority's Finance Department when making day-to-day investment decisions. The Authority principally invests in securities of United States agencies, highly rated commercial paper, demand accounts, certificates of deposit, and repurchase agreements. According to management, the Authority is not in violation of any provisions of its Investment Policy.

**(a) Cash**

The total cash carrying amount as of December 31, 2015 and 2014 is \$337,120 and \$289,732, respectively. The actual amount of cash on deposit in all bank accounts as of December 31, 2015 and 2014 was \$328,050 and \$282,092, respectively. Authority accounts had a book balance as of December 31, 2015 and 2014 of \$336,381 and \$288,833, respectively, actual cash on deposit of \$327,300 and \$281,165, respectively, and are collateralized by pledged securities totaling \$346,219 and \$413,335, respectively, held in the Authority's name by the Authority's financial institutions or its agents. The Foundation's cash balance as of December 31, 2015 and 2014 includes a book balance of \$739 and \$899, respectively. The actual amount of cash on deposit in the Foundation's bank accounts as of December 31, 2015 and 2014 was \$750 and \$927, respectively, of which \$549 and \$500, respectively, was insured by the Federal Deposit Insurance Corporation (FDIC) and \$201 and \$427, respectively, which was not insured or collateralized.

(b) **Investments**

All securities, other than securities held by the respective trustees for the benefit of the bondholders, are held by the Authority. All investment transactions are recorded on a transaction date basis. As of December 31, 2015 and 2014, the Authority had the following investments:

Investment type	Fair value	December 31, 2015		
		Investment maturities		
		Less than 1 year	1–5 years	Over 5 years
Investments:				
Commercial paper	\$ 262,464	262,464	—	—
Certificates of deposit	50,194	50,194	—	—
Federal agency notes	276,475	276,475	—	—
U.S. Treasury bills	2,000	2,000	—	—
Total investments	591,133	591,133	—	—
Restricted investments held by trustee:				
Certificates of deposit	335,361	—	29,283	306,078
Commercial paper	224,795	224,795	—	—
Federal agency notes	369,366	265,007	—	104,359
Total restricted investments held by trustee	929,522	489,802	29,283	410,437
Restricted investments held by Authority:				
Certificates of deposit	200,149	200,149	—	—
Commercial paper	199,610	199,610	—	—
U.S. Treasury bills	24,952	24,952	—	—
Federal agency notes	418,974	418,974	—	—
Total restricted investments held by Authority	843,685	843,685	—	—
Restricted investments:				
Derivative instruments	(93,175)	—	—	(93,175)
Total investments	\$ 2,271,165	1,924,620	29,283	317,262

Note: Table includes \$2,811 of accrued interest, and \$124 of unamortized premium and discount on investments for the year ended December 31, 2015. Federal agency notes include \$761 in unrealized loss for the year ended December 31, 2015.

- (1) Included in investments above at December 31, 2015 is \$37,363 the Authority has designated as reserved for national toll interoperability requirements under Federal Law P.L. 112-131, the Moving Ahead for Progress in the 21st Century Act (Map-21) (\$10,500), reconstruction of the Grover Cleveland Service Area (\$5,075), widening of New Jersey Turnpike Interchanges 6-9 (\$20,000) and emergency maintenance work (\$1,788). In 2015, there were reductions in investments for Emergency Maintenance by \$5,712 and Grover Cleveland Service Area by \$3,684, for a total of \$ 9,396.

Investment type	December 31, 2014			
	Fair value	Investment maturities		
		Less than 1 year	1–5 years	Over 5 years
Investments:				
Commercial paper	\$ 487,305	487,305	—	—
Repurchase agreements	7,000	7,000	—	—
U.S. Treasury bills	4,750	4,750	—	—
Federal agency notes	3,614	3,614	—	—
Total investments	502,669	502,669	—	—
Restricted investments held by trustee:				
Certificates of deposit	310,626	—	310,626	—
Commercial paper	139,130	139,130	—	—
U.S. Treasury bills	73,500	73,500	—	—
Federal agency notes	460,918	357,319	—	103,599
Total restricted investments held by trustee	984,174	569,949	310,626	103,599
Restricted investments held by Authority:				
Certificates of deposit	275,904	250,842	25,062	—
Commercial paper	303,779	303,779	—	—
U.S. Treasury bills	93	93	—	—
Municipal bonds	70,417	55,771	14,646	—
Federal agency notes	196,624	146,651	49,973	—
Total restricted investments held by Authority	846,817	757,136	89,681	—
Restricted investments:				
Derivative instruments	(96,895)	—	—	(96,895)
Total investments	\$ 2,236,765	1,829,754	400,307	6,704

Note: Table includes \$5,609 of accrued interest, and \$1,231 of unamortized premium and discount on investments for the year ended December 31, 2014. Federal agency notes include \$1,553 in unrealized loss and Municipal include \$377 in unrealized gains for year ended December 31, 2014.

*Interest rate risk:* Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. As a means of limiting its exposure to fair value losses arising from rising interest rates, the Authority's Investment Policy sets maximum maturity limits for investments and requires that investment maturities are matched to the Authority's liquidity needs.



*Credit risk:* Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Authority's investment guidelines and policies are designed to protect principal by limiting credit risk. This is accomplished through ratings, and collateral requirements that vary according to the type of investment as defined in the Authority's Investment Policy. As of December 31, 2015 and 2014, the Authority's investment quality ratings as rated by Standard & Poor's and Moody's were as follows:

		December 31, 2015			
		Standard and Poor's/Moody's ratings			Totals
		A1/P-1	A-1+/P-1	AA+/Aaa	
Commercial paper	\$	364,311	322,558	—	686,869
Federal agency notes		—	960,331	105,121	1,065,452
U.S. Treasury bills		—	26,952	—	26,952
	\$	<u>364,311</u>	<u>1,309,841</u>	<u>105,121</u>	<u>1,779,273</u>

		December 31, 2014					
		Standard and Poor's/Moody's ratings					Totals
		A1/P-1	A-1+/P-1	AAA/Aaa	AA+/AAA	MIGI	
Commercial paper	\$	810,116	120,098	—	—	—	930,214
Repurchase agreements		7,000	—	—	—	—	7,000
Federal agency notes		—	508,719	—	105,121	50,005	663,845
U.S. Treasury bills		—	77,207	—	—	—	77,207
Municipal bonds		—	—	14,269	4,545	51,226	70,040
	\$	<u>817,116</u>	<u>706,024</u>	<u>14,269</u>	<u>109,666</u>	<u>51,226</u>	<u>1,748,306</u>

\*\* Rated by Egan-Jones Rating company

*Custodial credit risk:* For investments, custodial credit risk is the risk that in the event of the failure of the counterparty, the Authority will not be able to recover the value of its investments that are in the possession of the outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the Authority, and are held by either the counterparty or the counterparty's trust department or agent but not in the name of the Authority.

The Authority manages custodial credit risk by limiting its investments to highly rated institutions, having its investments registered in its name, and requiring high quality collateral be held by the counterparty in the name of the Authority for certain investment securities. As of December 31, 2015 and 2014, the Authority was not exposed to custodial credit risk on its investment securities.

All moneys held under the Bond Resolution, except amounts held by the Trustee or amounts which constitute investment securities, shall be continuously and fully secured by pledging, as collateral security, direct obligations of or obligations guaranteed by the United States of America having a fair value not less than the amount of such moneys.

*Concentration of credit risk:* Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer that exceeds 5% or more of its total investments. Concentrations limits are established in the Authority's Investment Policy as follows: (1) there are no limitations on investments carrying the full faith and credit of the United States Government, including repurchase agreements collateralized by such investments; (2) investments in any single Federal Agency not carrying the full faith and credit of the United States Government are limited to 40% of the portfolio; (3) investments in Certificates of Deposit are limited to 30% of the portfolio; (4) investments made in Commercial Paper are limited to 30% of the total portfolio; and (5) investments in Municipal Securities are limited to 30% of the total portfolio. Investments in any one single issuer (excluding U.S. Treasury and Federal Agency securities) are limited to 5% of the portfolio. The Investment Policy authorizes management to deviate from the policy if in the general best interests of the Authority. At December 31, 2015, the Authority exceeded its concentration limits for a single issuer with U.S. Bank and Toyota Motor Credit Corp. due to a scarcity of highly rated investments available in current market conditions. At December 31, 2014, the Authority exceeded its concentration limits for a single issuer with U.S. Bank and Bank of Tokyo Credit Corp. due to a scarcity of highly rated investments available in current market conditions. More than 5% of the Authority's investments are concentrated in the following issuers as of December 31, 2015 and 2014, respectively:

Issuer	December 31	
	2015	2014
U.S. Bank	9.0%	9.3%
Federal National Mortgage Association	9.8	8.1
Federal Home Loan Mortgage Corp	6.2	5.6
Federal Home Loan Bank	30.9	13.8
Toyota Motor Credit Corp.	7.6	N/A
Bank of Tokyo Credit Corp.	N/A	5.9

**(4) Capital Assets**

A summary of changes in the capital assets as of December 31, 2015 and 2014 is as follows:

<b>Classification</b>	<b>December 31, 2014</b>	<b>Additions</b>	<b>Retirements/ transfers</b>	<b>December 31, 2015</b>
Nondepreciable capital assets:				
Land	\$ 797,313	29,266	(1,782)	824,797
Construction-in-progress	1,582,797	1,056,631	(118,022)	2,521,406
Total nondepreciable capital assets	2,380,110	1,085,897	(119,804)	3,346,203
Depreciable capital assets:				
Road bed	3,095,125	—	—	3,095,125
Road surface	1,344,283	28,393	—	1,372,676
Bridges	4,251,077	46,689	—	4,297,766
Buildings and sound barriers	606,910	7,917	—	614,827
Equipment	1,203,633	35,023	—	1,238,656
Total depreciable capital assets	10,501,028	118,022	—	10,619,050
Total capital assets	12,881,138	1,203,919	(119,804)	13,965,253
Less accumulated depreciation:				
Road bed	(692,291)	(30,841)	—	(723,132)
Road surface	(491,320)	(102,648)	—	(593,968)
Bridges	(971,589)	(88,535)	—	(1,060,124)
Buildings and sound barriers	(288,147)	(16,070)	—	(304,217)
Equipment	(404,438)	(78,283)	—	(482,721)
Total accumulated depreciation	(2,847,785)	(316,377)	—	(3,164,162)
Capital assets, net	\$ 10,033,353	887,542	(119,804)	10,801,091

<b>Classification</b>	<b>December 31, 2013</b>	<b>Additions</b>	<b>Retirements/ transfers</b>	<b>December 31, 2014</b>
Nondepreciable capital assets:				
Land	\$ 775,569	26,507	(4,763)	797,313
Construction-in-progress	3,839,776	1,145,650	(3,402,629)	1,582,797
Total nondepreciable capital assets	4,615,345	1,172,157	(3,407,392)	2,380,110
Depreciable capital assets:				
Road bed	2,661,166	433,959	—	3,095,125
Road surface	791,784	552,499	—	1,344,283
Bridges	2,255,389	1,995,688	—	4,251,077
Buildings and sound barriers	526,898	80,012	—	606,910
Equipment	865,336	338,297	—	1,203,633
Total depreciable capital assets	7,100,573	3,400,455	—	10,501,028
Total capital assets	11,715,918	4,572,612	(3,407,392)	12,881,138
Less accumulated depreciation:				
Road bed	(665,492)	(26,799)	—	(692,291)
Road surface	(440,246)	(51,074)	—	(491,320)
Bridges	(919,426)	(52,163)	—	(971,589)
Buildings and sound barriers	(274,298)	(13,849)	—	(288,147)
Equipment	(347,322)	(57,116)	—	(404,438)
Total accumulated depreciation	(2,646,784)	(201,001)	—	(2,847,785)
Capital assets, net	\$ 9,069,134	4,371,611	(3,407,392)	10,033,353

**(5) Accounts Payable and Accrued Expenses**

Accounts payable and accrued expenses consist of the following as of December 31, 2015 and 2014:

	<b>December 31</b>	
	<b>2015</b>	<b>2014</b>
Vendors	\$ 39,765	31,623
Vendors – capital related	114,208	95,768
Accrued salaries and benefits	7,282	13,921
Other accrued expenses	1,524	1,863
Accounts payable – pension related	24,482	24,482
Total	\$ 187,261	167,657

**(6) Bond Indebtedness**

As of December 31, 2015 and 2014, bond indebtedness consisted of the following:

	Interest rate	Maturity	December 31	
			2015	2014
Turnpike revenue bonds:				
Series 1991C, subject to mandatory redemption Jan. 1, 2016	6.50%	Jan. 1, 2016	\$ 67,160	67,160
Series 2000B-G, subject to mandatory redemption Jan. 1, 2021 and Jan. 1, 2030 and optional redemption prior to maturity in whole or part at redemption price of 100% plus accrued interest	Variable rate not to exceed 10.00% (0.42% to 0.45% at Dec. 31, 2015); (0.10% to 0.18% at Dec. 31, 2014);	Jan. 1, 2030	400,000	400,000
Series 2003B (Federally Taxable), not subject to redemption	1.15% to 3.14%	Jan. 1, 2004 through Jan. 1, 2016	70,005	234,210
Series 2004B, Capital appreciation bonds, growth and income securities term bond with sinking fund redemption Jan. 1, 2031 through Jan. 1, 2035, subject to optional redemption on/after Jan. 1, 2017 equal to 100% of accreted value plus accrued interest	5.15%	Jan. 1, 2035	168,646	164,411
Series 2004C-2, not subject to optional redemption prior to maturity	5.50%	Jan. 1, 2025	132,850	132,850
Series 2005A, not subject to optional redemption prior to maturity	5.25%	Jan. 1, 2026 through Jan. 1, 2030	173,650	173,650
Series 2005B (Federally Taxable), not subject to optional redemption prior to maturity	4.81%	Jan. 1, 2019	32,500	32,500
Series 2005D1-D4, (Federally Taxable Converting to Tax-Exempt) convertible to tax-exempt on Jan. 1, 2009 through Jan. 1, 2013, not subject to optional redemption	5.25%	Jan. 1, 2026	208,735	208,735

	Interest rate	Maturity	December 31	
			2015	2014
Series 2009A	Variable 0.04% at Dec. 31, 2014	Jan. 1, 2024	\$ —	92,500
Series 2009B	Variable 0.04% at Dec. 31, 2014	Jan. 1, 2024	—	50,000
Series 2009E, subject to optional redemption prior to maturity on/after Jan. 1, 2019 in whole or in part	5.25%	Jan. 1, 2040	300,000	300,000
Series 2009F, Term Bond, Federally Taxable – Issuer Subsidy – Build America Bonds, subject to redemption prior to maturity at make-whole redemption price, subject to mandatory redemption on Jan. 1, 2037 through Jan. 1, 2040	7.41%	Jan. 1, 2040	1,375,000	1,375,000
Series 2009G, not subject to redemption prior to maturity	5.00%	Jan. 1, 2017 and Jan. 1, 2018	34,770	34,770
Series 2009H, subject to optional redemption prior to maturity on/after Jan. 1, 2019 in whole or part at redemption price plus 100% accrued interest	5.00% and 4.25%	Jan. 1, 2020 through Jan. 1, 2024 and Jan. 1, 2036	306,170	306,170
Series 2009I, subject to optional redemption prior to maturity on/after Jan. 1, 2020 in whole or part at redemption price plus 100% accrued interest	5.00%	Jan. 1, 2031	32,215	32,215
Subject to optional redemption prior to maturity on/after Jan. 1, 2020 in whole or part at redemption price plus 100% accrued interest, subject to mandatory redemption on Jan. 1, 2032 through Jan. 1, 2035	5.00%	Jan. 1, 2035	145,790	145,790

	Interest rate	Maturity	December 31	
			2015	2014
Series 2010A, Federally Taxable – Issuer Subsidy Build America Bonds, subject to optional redemption prior to maturity at make-whole redemption price. Subject to mandatory redemption on Jan. 1, 2035 through Jan. 1, 2041	7.10%	Jan. 1, 2041	\$ 1,850,000	1,850,000
Series 2012A, subject to optional redemption prior to maturity on/after Jan. 1, 2022 in whole or in part	3.63% to 5.00%	Jan. 1, 2031 through Jan. 1, 2033	80,740	80,740
Subject to mandatory redemption on Jan. 1, 2034 and 2035	5.00%	Jan. 1, 2035	60,515	60,515
Series 2012B, not subject to optional redemption prior to Jan. 1, 2023	5.00%	Jan. 1, 2019 through Jan. 1, 2023	329,250	329,250
Subject to optional redemption in whole or in part on any date on/after Jan. 1, 2023	3.50% to 5.00%	Jan. 1, 2024 through Jan. 1, 2030	475,185	475,185
Series 2012G, subject to mandatory tender Sept. 21, 2015, subject to redemption Jan. 1, 2020 to Jan. 1, 2024	Variable 0.72% at Dec 31, 2014	Jan. 1, 2024	—	43,750
Series 2013A, not subject to optional redemption prior to Jan. 1, 2023	3.00% to 5.00%	Jan. 1, 2016 through Jan. 1, 2023	78,315	78,315
Maturing on/after Jan. 1, 2024				
subject to optional redemption on/after Jul. 1, 2022	3.00% to 5.00%	Jan. 1, 2024 through Jan. 1, 2043	1,321,685	1,321,685
Series 2013B, not subject to optional redemption prior to maturity	Variable 0.74% at Dec 31, 2015 0.74% at Dec 31, 2014	Jan. 1, 2018	100,000	100,000
Series 2013C, not subject to optional redemption prior to maturity	Variable 0.49% at Dec 31, 2015 0.52% at Dec 31, 2014 0.56% at Dec 31, 2015 0.59% at Dec 31, 2014	Jan. 1, 2017 Jan. 1, 2018	129,500 141,500	129,500 141,500
Series 2013D1, subject to optional redemption Jul. 1, 2015 and Mandatory tender Jan. 1, 2016	Variable 0.57% at Dec 31, 2014	Jan. 1, 2022	—	72,350
Series 2013D2, subject to optional redemption Jul. 1, 2016 and mandatory tender Jan. 1, 2017	Variable 0.63% at Dec 31, 2015 0.66% at Dec 31, 2014	Jan. 1, 2023	75,025	75,025
Series 2013D3, subject to optional redemption Jul. 1, 2017 and mandatory tender Jan. 1, 2018	Variable 0.69% at Dec 31, 2015 0.72% at Dec 31, 2014	Jan. 1, 2024	77,625	77,625

	Interest rate	Maturity	December 31	
			2015	2014
Series 2013E1, subject to optional redemption Jul. 1, 2015 and Mandatory tender Jan. 1, 2016	Variable 0.57% at Dec 31, 2014	Jan. 1, 2022	\$ —	48,235
Series 2013E2, subject to optional redemption Jul. 1, 2016 and mandatory tender Jan. 1, 2017	Variable 0.63% at Dec 31, 2015 0.66% at Dec 31, 2014	Jan. 1, 2023	50,015	50,015
Series 2013E3, subject to optional redemption Jul. 1, 2017 and mandatory tender Jan. 1, 2018	Variable 0.69% at Dec 31, 2015 0.72% at Dec 31, 2014	Jan. 1, 2024	51,750	51,750
Series 2013F, subject to optional redemption prior to maturity on/after Jan. 1, 2023 in whole or part	3.00% to 5.00%	Jan. 1, 2026 through Jan. 1, 2035	90,880	90,880
Series 2013G, not subject to optional redemption prior to maturity	Variable 0.72% at Dec 31, 2014	Jan. 1, 2024	—	43,750
Series 2014A, subject to optional redemption prior to maturity on/after July. 1, 2024 in whole or part	4.00% to 5.00%	Jan. 1, 2027 through Jan. 1, 2035	1,000,000	1,000,000
Series 2014B-1, subject to optional redemption Jul. 1, 2015 and mandatory tender Jan. 1, 2016 mandatory redemption 2022, 2023, and 2024	Variable 0.37% at Dec 31, 2014	Jan. 1, 2024	—	25,000
Series 2014B-2, subject to optional redemption Jul. 1, 2016 and mandatory tender Jan. 1, 2017 mandatory redemption 2022, 2023, and 2024	Variable 0.58% at Dec 31, 2015 0.52% at Dec 31, 2014	Jan. 1, 2024	50,000	50,000
Series 2014B-3, subject to optional redemption Jul. 1, 2017 and mandatory tender Jan. 1, 2018 mandatory redemption 2022, 2023, and 2024	Variable 0.73% at Dec 31, 2015 0.67% at Dec 31, 2014	Jan. 1, 2024	50,000	50,000
Series 2014C, not subject to optional redemption prior to maturity	5.00%	Jan. 1, 2019 through Jan. 1, 2025	201,860	201,860
Series 2015A, subject to optional redemption in whole or part, on/after Jan. 1, 2016,	Variable 0.94% at Dec. 31, 2015	Jan. 1, 2024	92,500	—
Series 2015B, subject to optional redemption in whole or part, on/after Feb. 1, 2017, mandatory tender Jan. 1, 2020	Variable 0.63% at Dec. 31, 2015	Jan. 1, 2024	50,000	—
Series 2015C, subject to optional redemption in whole or part, on/after Jan. 1, 2017	Variable 0.86% at Dec 31, 2015	Jan. 1, 2024	43,750	—



	Interest rate	Maturity	December 31	
			2015	2014
Series 2015D, subject to optional redemption in whole or part, on/after Jan. 1, 2017	Variable 0.86% at Dec 31, 2015	Jan. 1, 2024	\$ 43,750	—
Series 2015E, subject to optional redemption prior to maturity on/after Jan. 1, 2025 in whole or part	3.375% to 5.00%	Jan. 1, 2031 through Jan. 1, 2045	750,000	—
Series 2015F, subject to optional redemption in whole or part, on/after Jan. 1, 2017	Variable 0.91% at Dec 31, 2015	Jan. 1, 2022	72,350	—
Series 2015G, subject to optional redemption in whole or part, on/after Jan. 1, 2017	Variable 0.89% at Dec 31, 2015	Jan. 1, 2024	25,000	—
Series 2015H, subject to optional redemption in whole or part, on/after Jan. 1, 2017	Variable 1.02% at Dec 31, 2015	Jan. 1, 2022	48,235	—
			<u>10,786,921</u>	<u>10,196,891</u>
Bond premium-Net			474,721	438,676
Bond discount-Net			<u>(10,479)</u>	<u>(10,596)</u>
			<u>464,242</u>	<u>428,080</u>
			<u>\$ 11,251,163</u>	<u>10,624,971</u>

In accordance with its refunding plan, on January 29, 2015, the Authority issued Floating Rate Bonds in the amount of \$142,500 comprised of Series 2015A and 2015B Turnpike Revenue Bonds. The Series 2015A and 2015B Floating Rate Bonds bear interest at 67% and 75% of one month LIBOR Rate respectively, plus a certain spread for each Series. The interest on the Series 2015A and B Floating Rate Bonds is paid monthly. The 2015A and 2015B Floating Rate Bonds are direct purchase transactions and mature on January 1, 2024. The Authority issued the 2015A and 2015B Floating Rate Bonds and used the proceeds to fully refund the Series 2009A and 2009B Bonds, respectively.

On September 18, 2015, the Authority issued \$87,500 of Series 2015C and 2015D Floating Rate Bonds. The Series 2015C and 2015D Floating Rate Bonds bear interest at 67% one month LIBOR Rate, plus a certain spread for each Series. The interest on the Series 2015C and 2015D is paid monthly. The 2015C and 2015D Floating Rate Bonds are direct purchase transactions and mature on January 1, 2024. The Authority issued the 2015C and 2015D Floating Rate Bonds and used the proceeds to fully refund the Series 2012G and 2013G Bonds respectively.

On October 22, 2015, the Authority issued \$750,000 of Series 2015E Turnpike Revenue Bonds. The bonds bear interest at fixed rates from 3.375% to 5.0%, and mature from January 1, 2031 to January 1, 2045. The interest on the Series 2015E bonds is paid semi-annually. The purpose of the Series 2015E Turnpike Revenue Bonds was to pay the costs of construction of various projects which are part of the Authority's \$7 billion capital improvement program for the Turnpike system.

On December 23, 2015, the Authority issued \$145,585 of Series 2015F, 2015G and 2015H Floating Rate Bonds. The Series 2015F, 2015G and 2015H Floating Rate Bonds bear interest at 75%, 69.75% and 67% of one month LIBOR, respectively, plus a certain spread for each Series. The interest on the Series 2015F, 2015G and 2015H Floating Rate Bonds is paid monthly. The 2015F, 2015G and 2015H Floating Rate Bonds are direct purchase transactions. The Series 2015F and 2015H Bonds mature on January 1, 2022 and the Series 2015G Bonds mature January 1, 2024. The Authority issued the 2015F, 2015G and 2015H Floating Rate Bonds and used the proceeds to fully refund the Series 2013D-1, Series 2014B-1 and Series 2013E-1 Bonds, respectively.

**(a) Bond Insurance**

For the Series 2000B-G, Series 2003B-C, Series 2004B-C and Series 2005A-D Bonds, principal and interest payments are insured on the stated maturity and interest payment dates through municipal bond, insurance, which totaled \$1,119,020 and \$1,150,375 as of December 31, 2015 and 2014, respectively.

In order to meet the Debt Reserve Requirement under the Bond Resolution, the Authority must deposit cash and investments in the Debt Reserve Fund. In lieu of cash and investments, the Authority may maintain a surety bond or insurance policy payable to the Trustee. The Debt Reserve Requirement of \$589,672 as of December 31, 2015, was met through investments in the Debt Reserve Fund with a fair market value of \$590,782, and insurance policies payable to the Trustee with a payment limit of \$322,019. The Debt Reserve Requirement of \$561,104 as of December 31, 2014, was met through investments in the Debt Reserve Fund with a fair market value of \$565,212. Although the insurance policies are still in effect at December 31, 2015, according to the terms of the insurance policies, cash and investments in the Debt Reserve Fund must be drawn upon first to satisfy any payments required from the Debt Reserve Fund. As of December 31, 2015 and December 31, 2014, the fair market value of the cash and investments in the Debt Reserve Fund meets the Debt Reserve Requirement in its entirety.

**(b) Interest Payments – Fixed Rate Debt**

Interest payments on all fixed rate debt are payable semi-annually on July 1 and January 1 except for Capital Appreciation Bonds.

**(c) Interest Payments – Capital Appreciation Bonds**

Interest on Capital Appreciation Bonds is not paid as current interest, but rather added to the face value of the bond and paid at maturity.

The Series 2004B bonds, which are capital appreciation bonds, were originally issued in the amount of \$101,280 and are reported at their accreted value of \$168,646 and \$164,411 as of December 31, 2015 and 2014, respectively. The Series 2004B bonds are subject to mandatory redemption on January 1, 2031 through January 1, 2035 at 100% of the principal amount plus accrued interest.

**(d) Interest Payments – Variable Rate Debt**

Interest rates on variable rate debt, except for the Auction Rate Securities (see below) are reset weekly. Interest is paid monthly.

**(e) Auction Rate Bond Interest**

The Series 2000B-G bonds were issued as auction rate bonds with interest rates not to exceed 10%. The auction date for the Series 2000B-G bonds generally occurs every seven days. Interest on the auction rate bonds accrues for each auction interest period and is payable in arrears on each succeeding interest payment date. An interest auction period begins on, and includes, an interest payment date and ends on (but excludes) the next succeeding interest payment date. The final interest payment date on the Series 2000B-G bonds is January 1, 2030.

**(f) Build America Bonds**

The Series 2009F bonds are designated as Federally Taxable, Issuer Subsidy Build America Bonds for purposes of the American Recovery and Reinvestment Act of 2009. The Authority receives a cash subsidy from the United States Treasury originally equal to 35% of the interest payable on the bonds. The Budget Control Act of 2011 reduced the amount of the subsidy paid by the Federal Government through automatic federal spending cuts commonly known as sequestration. The payment to the Authority received for the July 1, 2015 interest payment was reduced by 7.3%, and the payment received in December 2015 (for January 1, 2016 interest payment) was reduced by 6.8%. The Internal Revenue Service has reported that the Authority's payment due on July 1, 2016 will also have a 6.8% reduction. There can be no certainty the Federal Government will not make further cuts to the program. These cash payments constitute pledged revenues under the Authority's bond resolution. The Series 2009F bonds are subject to redemption prior to maturity at the make-whole redemption price which is equal to the greater of (i) 100% of the principal amount of the bonds to be redeemed plus accrued and unpaid interest and (ii) the sum of the present value of the remaining scheduled payments of principal and interest, discounted to the date on which the bonds are to be redeemed on a semi-annual basis, assuming a 360 day year consisting of twelve 30 day months, at the adjusted Treasury Rate plus 50 basis points, plus accrued and unpaid interest. The bonds are also subject to redemption prior to their maturity at the option of the Authority upon a material adverse change to Section 54AA or 6431 of the Internal Revenue Code of 1986 pursuant to which the Authority's 35% cash subsidy payment is reduced or eliminated. In this case the redemption price is equal to the greater of (i) 100% of principal amount of the bonds to be redeemed plus accrued and unpaid interest and (ii) the sum of the present value of the remaining scheduled payments of principal and interest, discounted to the date on which the bonds are to be redeemed on a semi-annual basis, assuming a 360 day year consisting of twelve 30 day months, at the adjusted Treasury Rate plus 100 basis points, plus accrued and unpaid interest. The Series 2009F bonds are subject to mandatory redemption on January 1, 2037 through January 1, 2040 at 100% of the principal amount plus accrued interest.

The Series 2010A bonds are designated as Federally Taxable, Issuer Subsidy Build America Bonds for purposes of the American Recovery and Reinvestment Act of 2009. The Authority receives a cash subsidy from the United States Treasury originally equal to 35% of the interest payable on the bonds. The Budget Control Act of 2011 reduced the amount of the subsidy paid by the Federal Government through automatic federal spending cuts commonly known as sequestration. The payment to the Authority received for the July 1, 2015 interest payment was reduced by 7.3%, and the payment received in December 2015 (for January 1, 2016 interest payment) was reduced by 6.8%. The Internal Revenue Service has reported that the Authority's payment due on July 1, 2016 will also have a 6.8% reduction. There can be no certainty the Federal

Government will not make further cuts to the program. These cash payments constitute Pledged Revenues under the Authority's bond resolution. The Series 2010A bonds are subject to redemption prior to maturity at the make-whole redemption price which is equal to the greater of (i) 100% of the principal amount of the bonds to be redeemed plus accrued and unpaid interest and (ii) the sum of the present value of the remaining scheduled payments of principal and interest, discounted to the date on which the bonds are to be redeemed on a semi-annual basis, assuming a 360 day year consisting of twelve 30 day months, at the adjusted Treasury Rate plus 40 basis points, plus accrued and unpaid interest. The bonds are also subject to redemption prior to their maturity at the option of the Authority upon a material adverse change to Section 54AA or 6431 of the Internal Revenue Code of 1986 pursuant to which the Authority's 35% cash subsidy payment is reduced or eliminated. In this case the redemption price is equal to the greater of (i) 100% of principal amount of the bonds to be redeemed plus accrued and unpaid interest and (ii) the sum of the present value of the remaining scheduled payments of principal and interest, discounted to the date on which the bonds are to be redeemed on a semi-annual basis, assuming a 360 day year consisting of twelve 30 day months, at the adjusted Treasury Rate plus 100 basis points, plus accrued and unpaid interest. The Series 2010A bonds are subject to mandatory redemption on January 1, 2035 through January 1, 2041 at 100% of the principal amount plus accrued interest.

**(g) Floating Rate Bonds and SIFMA Index Bonds**

The following table summarizes the terms of the Authority's direct placement of Floating Rate Bonds, SIFMA Index Bonds, and publically offered Floating Rate Bonds as of December 31, 2015:

Series of bonds	Tax exempt or federally taxable	Final maturity date	Par amount	Floating rate	Interest rate reset	Mandatory tender date
2013B	Tax-Exempt	1/1/2018	\$ 100,000	75% of the sum of 1-month LIBOR + 79bp	Weekly	
2013C1	Tax-Exempt	1/1/2017	121,000	SIFMA + 48 bp	Weekly	
2013C2	Tax-Exempt	1/1/2018	150,000	SIFMA + 55 bp	Weekly	
2013D2	Tax-Exempt	1/1/2023	75,025	SIFMA + 62 bp	Weekly	1/1/2017
2013D3	Tax-Exempt	1/1/2024	77,625	SIFMA + 68 bp	Weekly	1/1/2018
2013E2	Tax-Exempt	1/1/2023	50,015	SIFMA + 62 bp	Weekly	1/1/2017
2013E3	Tax-Exempt	1/1/2024	51,750	SIFMA + 68 bp	Weekly	1/1/2018
2014B2	Tax-Exempt	1/1/2024	50,000	67% LIBOR + 42 bp	Weekly	1/1/2017
2014B3	Tax-Exempt	1/1/2024	50,000	67% LIBOR + 57 bp	Weekly	1/1/2018
2015A	Tax-Exempt	1/1/2024	92,500	67% 1 month LIBOR + 78 bp	Weekly	
2015B	Tax-Exempt	1/1/2024	50,000	75% 1 month LIBOR + 45 bp	Weekly	1/1/2020
2015C	Tax-Exempt	1/1/2024	43,750	67% 1 month LIBOR + 70 bp	Weekly	
2015D	Tax-Exempt	1/1/2024	43,750	67% 1 month LIBOR + 70 bp	Weekly	
2015F	Tax-Exempt	1/1/2022	72,350	75% 1 month LIBOR + 59.5 bp	Weekly	
2015G	Tax-Exempt	1/1/2024	25,000	69.75% 1 month LIBOR + 60 bp	Weekly	
2015H	Tax-Exempt	1/1/2022	48,235	67% 1 month LIBOR + 74 bp	Weekly	

The Series 2013B, Series 2015A, Series 2015B, Series 2015C, Series 2015D, Series 2015F, Series 2015G and Series 2015H Bonds are direct placements of Floating Rate Bonds. The Series 2013C1-C2, Series 2013 D2-D3 and Series 2013E2-E3 are publically offered SIFMA Index Bonds and Series 2014B2-B3 are publically offered Floating Rate Bonds. Pursuant to the terms of the Series 2013B, Series 2015A, Series 2015B, Series 2015C, Series 2015D, Series 2015F, Series 2015G and Series 2015H Bonds, in addition to being subject to mandatory tender for purchase on the Mandatory Tender Date or maturity date set forth in the chart above, upon the occurrence of certain enumerated extraordinary mandatory purchase events, the respective Series of Bonds may also be subject to mandatory tender for purchase at the option of the applicable bank that is the holder of such Series of Bonds prior to the occurrence of such Mandatory Tender Date. In the event that the Authority cannot pay

the purchase price for all or a portion of such Series of Bonds on the Mandatory Tender Date or any such extraordinary mandatory purchase date, (i) 50% of the principal amount of any unpurchased Bonds will be subject to mandatory redemption on the date that is one year after such Mandatory Tender Date or extraordinary mandatory purchase date, at a Redemption Price equal to 100% of the principal amount of such Bonds to be redeemed plus accrued interest to the redemption date, and (ii) the entire remaining aggregate principal amount of such unpurchased Bonds will be subject to mandatory redemption on the date that is two years after such Mandatory Tender Date or extraordinary mandatory purchase date, at a Redemption Price equal to 100% of the principal amount of such Bonds to be redeemed plus accrued interest to the redemption date.

**(h) Security**

All bonds outstanding under the Bond Resolution, together with amounts owed under the interest rate swap agreements, are secured on a parity by a pledge of net revenues of the Authority senior in priority to any other Authority obligations secured by such net revenues.

**(i) Future Payments of Debt Service**

The following table sets forth as of December 31, 2015, payments of principal (through sinking fund installments) and interest to be made to the Debt Service Fund from the Revenue Fund on all outstanding bonds of the Authority for the next five years and thereafter. Interest on variable-rate debt and interest rate swaps in the following table is based upon the variable-rates as of December 31, 2015.

	Principal	Interest	Interest rate swaps, net	Total
December 31:				
2016	\$ 142,115	454,734	69,132	665,981
2017	197,740	507,632	69,591	774,963
2018	218,475	525,744	58,614	802,833
2019	199,685	524,520	46,662	770,867
2020	247,420	514,624	46,662	808,706
2021–2025	1,584,645	2,473,065	145,788	4,203,498
2026–2030	1,708,650	2,185,827	30,364	3,924,841
2031–2035	1,963,603	1,792,182	—	3,755,785
2036–2040	3,182,864	1,074,983	—	4,257,847
2041–2045	1,341,724	141,824	—	1,483,548
	<u>\$ 10,786,921</u>	<u>10,195,135</u>	<u>466,813</u>	<u>21,448,869</u>

**(j) Interest Expense**

Interest expense was comprised of the following:

	<b>Year ended December 31</b>	
	<b>2015</b>	<b>2014</b>
Turnpike Revenue Bonds, Series 1991C	\$ 4,365	4,365
Turnpike Revenue Bonds, Series 2000B – G	13,774	13,340
Turnpike Revenue Bonds, Series 2003B	2,977	9,959
Turnpike Revenue Bonds, Series 2004B	12,920	8,151
Turnpike Revenue Bonds, Series 2004C	7,307	7,307
Turnpike Revenue Bonds, Series 2005A	9,117	18,930
Turnpike Revenue Bonds, Series 2005B	1,563	1,563
Turnpike Revenue Bonds, Series 2005D	10,959	10,959
Turnpike Revenue Bonds, Series 2009A	203	2,722
Turnpike Revenue Bonds, Series 2009B	121	1,645
Turnpike Revenue Bonds, Series 2009E	15,750	15,750
Turnpike Revenue Bonds, Series 2009F	101,943	101,943
Turnpike Revenue Bonds, Series 2009G	1,739	1,739
Turnpike Revenue Bonds, Series 2009H	15,193	15,193
Turnpike Revenue Bonds, Series 2009I	8,900	8,900
Turnpike Revenue Bonds, Series 2010A	131,387	131,387
Turnpike Revenue Bonds, Series 2011A	—	1,679
Turnpike Revenue Bonds, Series 2011B	—	1,157
Turnpike Revenue Bonds, Series 2012A(2)	6,894	6,894
Turnpike Revenue Bonds, Series 2012B(2)	39,772	39,772
Turnpike Revenue Bonds, Series 2012G	1,252	1,745
Turnpike Revenue Bonds, Series 2013A(1)	67,969	67,969
Turnpike Revenue Bonds, Series 2013B – G(2)	42,950	43,638
Turnpike Revenue Bonds, Series 2014A(1)	48,890	29,741
Turnpike Revenue Bonds, Series 2014B	4,759	1,951
Turnpike Revenue Bonds, Series 2014C	10,090	2,355
Turnpike Revenue Bonds, Series 2015A	3,077	—
Turnpike Revenue Bonds, Series 2015B	1,746	—
Turnpike Revenue Bonds, Series 2015C	494	—
Turnpike Revenue Bonds, Series 2015D	495	—
Turnpike Revenue Bonds, Series 2015E	5,765	—
Turnpike Revenue Bonds, Series 2015F	15	—
Turnpike Revenue Bonds, Series 2015G	5	—
Turnpike Revenue Bonds, Series 2015H	55	—
	<b>572,446</b>	<b>550,754</b>

	<b>Year ended December 31</b>	
	<b>2015</b>	<b>2014</b>
Less amortization of bond premium and discount	\$ (21,747)	(16,330)
Less GASB Statement No. 53 interest expense adjustment (2)	(41,166)	(20,023)
Less interest expense capitalized to projects	(199,170)	(309,206)
Net interest expense	<b>\$ 310,363</b>	<b>205,195</b>

(1) Capitalized interest expense paid from bond proceeds

(2) For the Series 2000B-G, 2009A-B, 2011A-B, 2012G 2013B-D and 2013G Bonds

**(k) Defeased Bonds**

As of December 31, 2015 and 2014, the Authority has approximately \$144 and \$692, respectively, of bonds outstanding which have been previously defeased in substance and are secured by investments held by various escrow agents. The escrow accounts are invested in obligations of U.S. government agencies and are not controlled by the Authority. The bonds are considered extinguished and accordingly, the assets and obligations are not reflected on the financial statements of the Authority.

**(7) Derivative Instruments**

The fair value balances and notional amounts of derivative instruments outstanding as of December 31, 2015 and 2014, classified by type, and the changes in fair value of such derivative instruments for the year then ended as reported in the accompanying financial statements are as follows:

Changes in fair value for year ended December 31, 2015			Fair value as of December 31, 2015		Notional
Classification		Amount	Classification	Amount	
Cash flow hedges:					
Pay-fixed, receive-variable interest rate swaps <sup>(1)</sup>	Deferred outflow	\$ (3,680)	Interest rate swap liabilities	\$ (40,199)	1,096,000
Investment derivatives:					
Pay-fixed, receive-variable interest rate swaps	Investment gain	3,720	Restricted investments	(93,175)	400,000
Changes in fair value for year ended December 31, 2014			Fair value as of December 31, 2014		Notional
Classification		Amount	Classification	Amount	
Cash flow hedges:					
Pay-fixed, receive-variable interest rate swaps <sup>(1)</sup>	Deferred outflow	\$ (27,944)	Interest rate swap liabilities	\$ (45,366)	1,096,000
Investment derivatives:					
Pay-fixed, receive-variable interest rate swaps	Investment loss	32,178	Restricted investments	(96,895)	400,000

<sup>(1)</sup> Includes fair value of at-the-market interest rate swaps from hybrid instruments

The fair values of the interest rate swaps were estimated using the zero-coupon method. This method calculates the future net settlement payments required by the swap, assuming that the current forward rates implied by the yield curve correctly anticipate future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement on the swaps.



### Objective and Terms of Derivative Instruments

The following tables display the objective and terms of the Authority's derivative instruments outstanding as of December 31, 2015 and 2014, along with the credit rating of the associated counterparty (amounts in thousands):

	December 31, 2015					
Type	Objective	Notional amount	Effective date	Maturity date	Terms	Counterparty credit rating
Hedging derivative instruments:						
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013B bonds	\$ 100,000	Mar. 14, 2011	Jan. 1, 2018	Pay 5.5728%, receive 75% of 1 month of USD-LIBOR-BBA	A2/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013C1 bonds	121,000	Mar. 14, 2011	Jan. 1, 2018	Pay 5.6346%, receive USD-SIFMA Municipal Swap Index	A2/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013C2 bonds	150,000	Mar. 14, 2011	Jan. 1, 2018	Pay 5.6089%, receive USD-SIFMA Municipal Swap Index	A2/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013D bonds	152,650	May. 21, 2013	Jan. 1, 2024	Pay 3.4486%, receive 73.2% of 1 month of USD-LIBOR-BBA	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013E bonds	101,765	Sep. 1, 2015	Jan. 1, 2024	Pay 3.4486%, receive 63% of 1 month plus 20bp USD-LIBOR-BBA	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2014B2 bonds	50,000	Sep. 1, 2015	Jan. 1, 2024	Pay 3.35%, receive 67% of 1 month USD-LIBOR-BBA	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2014B3 bonds	50,000	Aug. 4, 2014	Jan. 1, 2024	Pay 3.35%, receive 67% of 1 month USD-LIBOR-BBA	A1/A/A+
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015A bonds	87,500	Jan. 29, 2015	Jan. 1, 2024	Pay 2.98%, receive 67% of 1 month USD-LIBOR-BBA	A3/BBB+/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015B bonds	50,000	Feb. 11, 2009	Jan. 1, 2024	Pay 3.331%, receive 75% of 1 month USD-LIBOR-BBA	A2/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015C bonds	43,750	Feb. 11, 2009	Jan. 1, 2024	Pay 3.2488%, receive 67% of 1 month USD-LIBOR-BBA	A2/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015D bonds	43,750	Feb. 11, 2009	Jan. 1, 2024	Pay 3.2525%, receive 67% of 1 month USD-LIBOR-BBA	A2/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015F bonds	72,350	May. 21, 2013	Jan. 1, 2022	Pay 3.4486%, receive until 73.2% of 1 month USD-LIBOR-BBA	Aa2/AA-/AA



December 31, 2015						
Type	Objective	Notional amount	Effective date	Maturity date	Terms	Counterparty credit rating
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015G bonds	\$ 25,000	Sep. 1, 2015	Jan. 1, 2024	Pay 3.35%, receive 67% of 1 month USD-LIBOR-BBA	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2015H bonds	48,235	Sep. 1, 2015	Jan. 1, 2022	Pay 3.305%, receive 67% of 1 month USD-LIBOR-BBA	Aa2/AA-/AA
Investment derivative instruments:						
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2000 B-G bonds	\$ 240,000	Sep. 1, 2015	Jan. 1, 2030	Pay 4.312%, receive 64.459% of 5-year LIBOR	Aa2/AA-/AA
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2000 B-G bonds	160,000	May. 21, 2013	Jan. 1, 2030	Pay 4.312%, receive 64.459% of 5-year LIBOR	Aa2/AA-/AA
December 31, 2014						
Type	Objective	Notional amount	Effective date	Maturity date	Terms	Counterparty credit rating
Hedging derivative instruments:						
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2009A bonds	\$ 87,500	Feb. 12, 2009	Jan. 1, 2024	Pay 3.114%, receive until 1/1/16, lesser of 63% of LIBOR plus 20bp or bond rate; after 1/1/16 63% of LIBOR plus 20bp	Baa2/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2009B bonds	50,000	Feb. 11, 2009	Jan. 1, 2024	Pay 3.294%, receive until 1/1/16, lesser of 63% of LIBOR plus 20bp or bond rate; after 1/1/16 63% of LIBOR plus 20bp	A2/A/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2012G bonds	43,750	Feb. 11, 2009	Jan. 1, 2024	Pay 3.3999%, receive from 9/20/2012 to but excluding termination date 75% of 1 month of USD-LIBOR	A2/A/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013B bonds	100,000	Mar. 14, 2011	Jan. 1, 2018	Pay 5.5728%, receive 75% of 1 month of USD-LIBOR-BBA	A2/A/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013C1 bonds	121,000	Mar. 14, 2011	Jan. 1, 2018	Pay 5.6346%, receive USD-SIFMA Municipal Swap Index	A2/A/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013C2 bonds	150,000	Mar. 14, 2011	Jan. 1, 2018	Pay 5.6089%, receive USD-SIFMA Municipal Swap Index	A2/A/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013D bonds	225,000	May. 21, 2013	Jan. 1, 2024	Pay 3.4486%, receive 73.2% of 1 month of USD-LIBOR-BBA	Aa3/AA-/AA-
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013E bonds	150,000	Aug. 4, 2014	Jan. 1, 2024	Pay 3.4486%, receive until 1/1/15, lesser of 63% of LIBOR plus 20bp or bond rate; after 1/1/15 63% of LIBOR plus 20bp	Baa2/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2013G bonds	43,750	Feb. 11, 2009	Jan. 1, 2024	Pay 3.4035%, receive 75% of 1 month USD-LIBOR-BBA	A2/A/A

December 31, 2014						
Type	Objective	Notional amount	Effective date	Maturity date	Terms	Counterparty credit rating
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2014B1-2 bonds	\$ 75,000	Aug. 4, 2014	Jan. 1, 2024	Pay 3.35%, receive 67% of 1 month USD-LIBOR-BBA	Baa2/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2014B3 bonds	50,000	Aug. 4, 2014	Jan. 1, 2024	Pay 3.50%, receive 67% of 1 month USD-LIBOR-BBA	A2/A/A
Investment derivative instruments:						
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2000 B-G bonds	240,000	Jan. 1, 2007	Jan. 1, 2030	Pay 4.312%, receive 64.459% of 5-year LIBOR	Baa2/A-/A
Pay-fixed, receive-variable interest rate swap	Hedge of interest rate risk on the Series 2000 B-G bonds	160,000	May. 21, 2013	Jan. 1, 2030	Pay 4.312%, receive 64.459% of 5-year LIBOR	Aa3/AA-/AA-

On January 29, 2015, the Authority issued Series 2015A and Series 2015B Bonds in accordance with its refunding plan. At the same time, the Authority also entered into amendments on its existing Interest Rate Swap agreements that were associated with these bonds. The Swap agreement relating to the Series 2009A Bonds with Morgan Stanley was amended and re-identified to the Series 2015A Bonds. The fixed swap rate was changed to 2.98% and the floating rate to 67% of one-month USD-LIBOR-BBA. The Swap agreement relating to the Series 2009B Bonds with Barclay's was amended and re-identified to the Series 2015B Bonds. The fixed swap rate was changed to 3.331% and the floating rate to 75% of one-month USD-LIBOR-BBA.

As of September 11, 2015, the Authority novated three interest rate swap transactions with Morgan Stanley Capital Services, LLC in respect to its Series 2000B-G, Series 2013E and Series 2014B1-2 Bonds, to Wells Fargo Bank, N.A.

On September 18, 2015, the Authority issued Series 2015C and Series 2015D Bonds in accordance with its refunding plan. At the same time, the Authority also entered into amendments on its existing Interest Rate Swap agreements that were associated with these bonds. The Swap agreement relating to the Series 2012G Bonds with Barclay's was amended and re-identified to the Series 2015C Bonds. The fixed swap rate was changed to 3.2488% and the floating rate to 67% of one-month USD-LIBOR-BBA. The Swap agreement relating to the Series 2013G Bonds with Barclays's was amended and re-identified to the Series 2015D Bonds. The fixed swap rate was changed to 3.2525% and the floating rate to 67% of one-month USD-LIBOR-BBA.

On December 21, 2015, the Authority amended an interest rate swap transaction relating to the Series 2013E-1 Bonds with Wells Fargo Bank, N.A. The fixed swap rate was changed to 3.305% and the floating rate to 67% of one-month USD-LIBOR-BBA. On December 23, 2015, the Authority issued Series 2015H Bonds in accordance with its refunding plan. The Swap agreement relating to the Series 2013E-1 Bonds with Wells Fargo Bank, N.A. was re-identified to the Series 2015H Bonds. Also on December 23, 2015, the Authority issued Series 2015F Bonds and Series 2015G Bonds, in accordance with its refunding plan. The Swap agreement relating to the Series 2013D-1 Bonds with Wells Fargo Bank, N.A. was re-identified to the Series 2015F Bonds and the Swap agreement relating to the Series 2014B-1 Bonds with Wells Fargo Bank, N.A. was re-identified to the Series 2015G Bonds.

**(a) Risks**

**Credit risk:** The Authority is exposed to credit risk on derivative instruments that are in asset positions. To minimize its exposure to loss related to credit risk, it is the Authority's policy to require counterparty collateral posting provisions in its derivative instruments. These terms require full collateralization of the fair value of derivative instruments in asset positions (net of the effect of applicable netting arrangements) should the counterparty's credit rating fall below BBB-as issued by Standard & Poor's or Baa3 as issued by Moody's Investors Service. Collateral posted is to be in the form of U.S. Treasury securities held by a third-party custodian. All of the Authority's derivative investments provide for the netting of the value of asset and liability positions with the same counterparty upon termination. There were no derivative instruments in asset positions as of December 31, 2015 and 2014, respectively.

**Basis risk:** The Authority is exposed to basis risk on its pay-fixed, receive-variable interest rate swaps that hedge its Series 2000B-G, 2013D and 2013E bonds because the variable-rate payments received by the Authority on these hedging derivative instruments generally are based on a rate or index other than interest rates the Authority pays on its hedged variable-rate debt, which is remarketed every 7 days. As of December 31, 2015 and 2014, the weighted average interest rate on the Authority's hedged variable-rate debt is 0.53% and 0.34%, respectively, while 64.459% of USD LIBOR is 1.05% and 1.18%, respectively, 73.2% of one-month LIBOR is 0.25% and 0.12%, respectively, 63% of LIBOR plus 20 basis points is 0.46% and 0.30%, respectively.

**Termination risk:** The Authority or its counterparties may terminate a derivative instrument if the other party fails to perform under the terms of the contract. If at the time of termination, a hedging derivative instrument is in a liability position, the Authority would be liable to the counterparty for a payment equal to the liability, subject to netting arrangements.

**(b) Contingencies**

All of the Authority's derivative instruments, except for the \$101,765, \$100,000, \$25,000 and \$48,235 notional value swaps that hedge the Series 2013E, Series 2014B, 2015G, and 2015H bonds, respectively, include provisions that require the Authority to post collateral in the event its credit rating falls below BBB as issued by Standard & Poor's or Baa2 as issued by Moody's Investors Service. For the Series 2013E, 2014B, 2015G and 2015H Swap Agreements only, the rating on the respective Series 2013E, Series 2014B, 2015G, and 2015H Bonds would have to drop below A2 from Moody's, below A from S&P and below A from Fitch for any collateral posting requirements to be imposed upon the Authority under such agreements. The collateral posted is to be

in the form of U.S. Treasury securities in the amount of the fair value of derivative instruments in liability positions. If the Authority does not post collateral, the derivative instrument may be terminated by the counterparty. As of December 31, 2015 and 2014, the aggregate fair value of all derivative instruments with these collateral posting provisions, based on their stated fixed rates, is approximately \$220,118 and \$246,322, respectively. If the collateral posting requirements were triggered as of December 31, 2015 and 2014, the Authority would be required to post \$220,118 and \$246,322, respectively, in collateral to its counterparties. The Authority's credit rating is A3 Moody's, A+ S&P and A Fitch; therefore, no collateral has been posted as of December 31, 2015 or 2014, respectively.

(c) **Hybrid Instrument Borrowings**

The interest rate swaps hedging the series noted below include fixed rates that were off-market at the execution of the interest rate swaps. For financial reporting purposes these interest rate swaps are considered hybrid instruments and are bifurcated between borrowings with an aggregate original amount of \$138,508 and \$151,214 as of December 31, 2015 and 2014, respectively, reflecting the difference between the fair value of the instrument at its execution and an interest rate swap with a fixed rate that was considered at-the-market at execution. Activity for the hybrid instrument borrowings for the years ended December 31, 2015 and 2014 was as follows:

	December 31, 2014	Additions	Reductions	December 31, 2015	Current portion
Hybrid instrument borrowings:					
Series 2009 A	\$ 5,421	—	5,421	—	—
Series 2009 B	3,654	—	3,654	—	—
Series 2012 G	6,611	—	6,611	—	—
Series 2013 B	18,089	—	4,488	13,601	4,511
Series 2013 C1	22,075	—	5,481	16,594	5,506
Series 2013 C2	27,385	—	6,797	20,588	6,830
Series 2013 D	40,113	—	17,921	22,192	58
Series 2013 G	6,833	—	6,833	—	—
Series 2015A	—	10,654	—	10,654	1,060
Series 2015B	—	6,621	—	6,621	655
Series 2015C	—	5,306	—	5,306	177
Series 2015D	—	5,314	—	5,314	177
Series 2015F	—	10,656	—	10,656	38
	<u>\$ 130,181</u>	<u>38,551</u>	<u>57,206</u>	<u>111,526</u>	<u>19,012</u>
	December 31, 2013	Additions	Reductions	December 31, 2014	Current portion
Hybrid instrument borrowings:					
Series 2009 A	\$ 6,103	—	682	5,421	699
Series 2009 B	4,111	—	457	3,654	469
Series 2012 G	7,492	—	881	6,611	891
Series 2013 B	21,335	—	3,246	18,089	4,488
Series 2013 C1	26,345	—	4,270	22,075	5,481
Series 2013 C2	32,298	—	4,913	27,385	6,797
Series 2013 D	42,387	—	2,274	40,113	3,754
Series 2013 G	6,738	487	392	6,833	647
	<u>\$ 146,809</u>	<u>487</u>	<u>17,115</u>	<u>130,181</u>	<u>23,226</u>

The following table sets forth as of December 31, 2015, payments of principal and interest on the hybrid instrument borrowings for the next five years and thereafter. The total payments generally reflect the difference between the stated fixed rate of the hybrid instrument and the at-the-market fixed rate at the execution of the instrument.

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
December 31:			
2016	\$ 19,012	444	19,456
2017	24,389	874	25,263
2018	24,560	702	25,262
2019	7,644	529	8,173
2020	7,737	436	8,173
2021–2024	28,184	817	29,001
	<u>\$ 111,526</u>	<u>3,802</u>	<u>115,328</u>

## (8) Debt Compliance

The Revenue Requirement under Section 713(b) of the Turnpike Revenue Bond Resolution states that in each calendar year, Net Revenues shall at least equal the Net Revenue Requirement for such year. Under Section 101 of said Resolution, Net Revenues are defined as “for any calendar year or other period of time, the Pledged Revenues during such year or period less the amounts of the Operating Expenses for such year or period.” The Net Revenue Requirement means with respect to any period of time, “an amount equal to the greater of (i) the sum of Aggregate Debt Service, Maintenance Reserve Payments, Special Project Reserve Payments and payments, if any, to the Charges Fund for such period or (ii) 1.20 times the Aggregate Debt Service for such period (excluding, for the purposes of clause (ii) only, any payment due and payable by the Authority under a Qualified Swap upon an early termination thereof).”

The net revenue requirement was met under test (i) and (ii) above for 2015 and 2014 as follows:

	<u>2015</u>	<u>2014</u>
(i):		
Net revenue available for Debt Service	\$ 1,218,845	1,166,909
Less net revenue requirements computed under test (the sum of aggregate debt service, maintenance reserve, special project reserve and charges fund payments)	<u>(799,320)</u>	<u>(713,660)</u>
Excess net revenue	<u>\$ 419,525</u>	<u>453,249</u>
(ii):		
Net revenue available for Debt Service	\$ 1,218,845	1,166,909
Less net revenue requirements computed under test (120% x aggregate debt service requirements of \$661,426 and \$608,896 in 2015 and 2014, respectively)	<u>(793,711)</u>	<u>(730,675)</u>
Excess net revenue	<u>\$ 425,134</u>	<u>436,234</u>

The debt service coverage ratio (Net Revenue divided by Debt Service) was 1.84 and 1.92 in 2015 and 2014, respectively.

## (9) Changes in Long-Term Liabilities

Long-term liability activity for the years ended December 31, 2015 and 2014 was as follows:

	December 31, 2014	Additions	Reductions	December 31, 2015	Current portion
Bonds payable, net	\$ 10,624,971	1,205,931	(579,739)	11,251,163	142,115
Hybrid instrument borrowing	130,181	38,551	(57,206)	111,526	19,012
Other long-term obligations:					
Pollution remediation liability	30,257	809	(2,370)	28,696	5,512
Self-insurance	29,947	63,869	(34,471)	59,345	—
Arbitrage liability	3,616	—	(3,616)	—	—
Reserve for E-ZPass tag swap	16,999	4,100	—	21,099	—
Other liabilities	2,839	—	(53)	2,786	—
Reserves	7,623	9,143	(2,190)	14,576	—
Compensated absences	19,134	18,165	(18,611)	18,688	3,945
Other postemployment benefits	319,906	55,958	—	375,864	—
Interest rate swaps liabilities	45,366	19,486	(24,653)	40,199	—
Net pension liability	366,300	68,715	—	435,015	—
Total	\$ 11,597,139	1,484,727	(722,909)	12,358,957	170,584

	December 31, 2013	Additions	Reductions	December 31, 2014	Current portion
Bonds payable, net	\$ 9,686,007	1,481,551	(542,587)	10,624,971	164,205
Hybrid instrument borrowing	146,809	487	(17,115)	130,181	23,226
Other long-term obligations:					
Pollution remediation liability	31,489	2,520	(3,752)	30,257	3,670
Self-insurance	28,748	11,304	(10,105)	29,947	—
Arbitrage liability	3,613	3	—	3,616	—
Reserve for E-ZPass tag swap	11,675	5,330	(6)	16,999	—
Other liabilities	2,834	242	(237)	2,839	—
Reserves	2,000	5,623	—	7,623	—
Compensated absences	18,765	18,869	(18,500)	19,134	4,184
Other postemployment benefits	282,847	37,059	—	319,906	—
Interest rate swaps liabilities	17,423	42,895	(14,952)	45,366	—
Net pension liability	—	366,300	—	366,300	—
Total	\$ 10,232,210	1,972,183	(607,254)	11,597,139	195,285

## (10) Pollution Remediation Obligations

The Authority accounts for its pollution remediation obligations (PRO) in accordance with GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*. As a result, the Authority has recorded in the statements of net position a PRO liability in the amount of \$28,696 and \$30,257 as of December 31, 2015 and 2014, respectively. The Authority's PRO liability is measured based on the expected costs of future activities, estimating a reasonable range of potential outlays and multiplying those outlays by their probability of occurring. The estimate of the liability does not include cost components that are not yet reasonably measurable.

The Authority owns numerous properties with environmental issues that meet the criteria for “obligating events” and disclosure under GASB Statement No. 49. The matters relate to soil and groundwater contamination at various facilities along the New Jersey Turnpike and Garden State Parkway including maintenance districts, toll facilities, service areas and other Authority owned facilities. The following table summarizes the Authority’s expected outlays and payments:

	PRO at December 31	
	2015	2014
Right of Way	\$ 13,400	13,850
Service areas	13,796	15,030
Maintenance districts	974	932
Toll facilities	430	395
Other facilities	96	50
Liability for pollution obligations remediation	\$ 28,696	30,257

## (11) Pension and Deferred Compensation

### 1) Plan description

Permanent full-time employees of the Authority are covered by the State of New Jersey Public Employees’ Retirement System (PERS), a plan that has been characterized for financial accounting purposes as a cost-sharing multiple-employer defined benefit pension plan. PERS is a contributory defined-benefit plan established in January 1955, under the provisions of N.J.S.A. 43:15A to provide coverage to substantially all full-time employees of the State of New Jersey or any county, municipality, school district or public agency, provided the employee is not a member of another State administered retired system. Membership is mandatory and vesting occurs after ten years of service, except for medical benefits, which vest after 25 years of service or under the disability provisions of PERS.

The risks of participating in a cost-sharing multiple-employer plan are different from those of participating in a single-employer plan in the following aspects:

- Assets contributed to the multiple-employer plan by one employer may be used to provide benefits to employees of other participating employers.
- If a participating entity stops contributing to the multiple-employer plan, the unfunded obligations of the plan may be borne by the remaining participating entities.
- If an entity petitions to stop participating in the multiple-employer plan, the entity may be required to pay the plan a withdrawal liability based on the funded status of the plan.

These aspects of cost-sharing multiple-employer plan participation are consistent with the manner of administration of the PERS. These aspects are not required by law but are part of the PERS administrative practices. Neither the financial accounting treatment of the PERS, nor their administrative practices, nor this note shall be deemed a representation that the PERS are subject to any laws that require the multiple-employer plan attributes that are set forth above.

## 2) Benefits provided

A summary of the PERS eligibility requirements is as follows:

	TIER 1 (Enrolled before July 1, 2007)	TIER 2 (Eligible for enrollment on or after July 1, 2007 and before November 2, 2008)	TIER 3 (Eligible for enrollment on or after November 2, 2008 and on or before May 22, 2010)	TIER 4 (Eligible for enrollment after May 22, 2010 and before June 28, 2011)	TIER 5 (Eligible for enrollment on or after June 28, 2011)
ELIGIBILITY	Minimum base salary of \$1,500 required for PERS Tier 1 enrollment. IRS Annual Compensation Limit on maximum salary generally apply (\$265 for 2014, \$255 for 2013, \$250 for 2012, \$245 for 2011, 2010, and 2009; \$230 for 2008).	Minimum base salary of \$2 required for PERS Tier 2 enrollment. PERS salary limited to Social Security maximum wage (\$117 for 2014, \$114 for 2013; \$110 for 2012; \$107 for 2011, 2010, and 2009; \$102 for 2008). PERS members are eligible for participation in the Defined Contribution Retirement Program (DCRP) for salary over the maximum wage limit.	Minimum base salary required for PERS Tier 3 enrollment: (\$8 for 2014, \$8 for 2013; \$8 for 2012; \$8 for 2011 and 2010; \$8 for 2009 and 2008; subject to adjustment in future years.) Employees with base salary between \$5,000 and current minimum PERS Tier 3 salary are eligible for participation in the Defined Contribution Retirement Program (DCRP). PERS salary limited to Social Security maximum wage (\$117 for 2014, \$114 for 2013; \$110 for 2012; \$107 for 2011, 2010, and 2009; \$102 for 2008). PERS members are eligible for participation in the DCRP for salary over the maximum wage limit.	PERS Tier 4 enrollment requires a minimum of 35 hours per week for State Employees, or 32 hours per week for Local Government or Local Education Employees. No minimum salary requirement. Employees who do not work the minimum required hours but who earn base salary of at least \$5 are eligible for participation in the Defined Contribution Retirement Program (DCRP). PERS salary limited to Social Security maximum wage (\$117 for 2014, \$114 for 2013; \$110 for 2012, \$107 for 2011, 2010, and 2009; \$102 for 2008). PERS members are eligible for participation in the DCRP for salary over the maximum wage limit.	PERS Tier 5 enrollment requires a minimum of 35 hours per week for State Employees, or 32 hours per week for Local Government or Local Education Employees. No minimum salary requirement. Employees who do not work the minimum required hours but who earn base salary of at least \$5 are eligible for participation in the Defined Contribution Retirement Program (DCRP). PERS salary limited to Social Security maximum wage (\$117 for 2014, \$114 for 2013; \$110 for 2012, \$107 for 2011, 2010, and 2009; \$102 for 2008). PERS members are eligible for participation in the DCRP for salary over the maximum wage limit.
SERVICE RETIREMENT	Minimum age of 60, no minimum service required. Annual Benefit = Years of Service ÷ 55 X Final Average (3 yrs.) Salary.	Minimum age of 60, no minimum service required. Annual Benefit = Years of Service ÷ 55 X Final Average (3 yrs.) Salary.	Minimum age of 62, no minimum service required. Annual Benefit = Years of Service ÷ 55 X Final Average (3 yrs.) Salary.	Minimum age of 62, no minimum service required. Annual Benefit = Years of Service ÷ 60 X Final Average (5 yrs.) Salary.	Minimum age of 65, no minimum service required. Annual Benefit = Years of Service ÷ 60 X Final Average (5 yrs.) Salary.
DEFERRED RETIREMENT	Collectible at age 60, at least 10 years of service required. Annual Benefit = Years of Service ÷ 55 X Final Average (3 yrs.) Salary.	Collectible at age 60, at least 10 years of service required. Annual Benefit = Years of Service ÷ 55 X Final Average (3 yrs.) Salary.	Collectible at age 62, at least 10 years of service required. Annual Benefit = Years of Service ÷ 55 X Final Average (3 yrs.) Salary.	Collectible at age 62, at least 10 years of service required. Annual Benefit = Years of Service ÷ 60 X Final Average (5 yrs.) Salary.	Collectible at age 65, at least 10 years of service required. Annual Benefit = Years of Service ÷ 60 X Final Average (5 yrs.) Salary.
EARLY RETIREMENT	At least 25 years of service required. Annual Benefit = Years of Service ÷ 55 X Final Average (3 yrs.) Salary. No minimum age; however, if under age of 55, the benefit is reduced 3 percent per year (1/4 of 1 percent per month) for each year under age 55.	At least 25 years of service required. Annual Benefit = Years of Service ÷ 55 X Final Average (3 yrs.) Salary. No minimum age; however, if under age of 60, the benefit is reduced 1 percent per year (1/12 of 1 percent per month) for each year under age 60 but over age 55; and 3 percent per year (1/4 of 1 percent per month) for each year under age 55.	At least 25 years of service required. Annual Benefit = Years of Service ÷ 55 X Final Average (3 yrs.) Salary. No minimum age; however, if under age of 62, the benefit is reduced 1 percent per year (1/12 of 1 percent per month) for each year under age 62 but over age 55; and 3 percent per year (1/4 of 1 percent per month) for each year under age 55.	At least 25 years of service required. Annual Benefit = Years of Service ÷ 60 X Final Average (5 yrs.) Salary. No minimum age; however, if under age of 62, the benefit is reduced 1 percent per year (1/12 of 1 percent per month) for each year under age 62 but over age 55; and 3 percent per year (1/4 of 1 percent per month) for each year under age 55.	At least 30 years of service required. Annual Benefit = Years of Service ÷ 60 X Final Average (5 yrs.) Salary. No minimum age; however, if under age of 65, the benefit is reduced 3 percent per year (1/4 of 1 percent per month) for each year under age 65.
VETERAN RETIREMENT	At least 25 years of service at age 55 or older; or at least 20 years of service at age 60 or older. Annual Benefit = 54.5 percent X last year or highest 12 months of salary; or At least 35 years of service at age 55 or older. Annual Benefit = Years of Service ÷ 55 X Highest 12 Months of Salary.	At least 25 years of service at age 55 or older; or at least 20 years of service at age 60 or older. Annual Benefit = 54.5 percent X last year or highest 12 months of salary; or At least 35 years of service at age 55 or older. Annual Benefit = Years of Service ÷ 55 X Highest 12 Months of Salary.	At least 25 years of service at age 55 or older; or at least 20 years of service at age 60 or older. Annual Benefit = 54.5 percent X last year or highest 12 months of salary; or At least 35 years of service at age 55 or older. Annual Benefit = Years of Service ÷ 55 X Highest 12 Months of Salary.	At least 25 years of service at age 55 or older; or at least 20 years of service at age 60 or older. Annual Benefit = 54.5 percent X last year or highest 12 months of salary; or At least 35 years of service at age 55 or older. Annual Benefit = Years of Service ÷ 55 X Highest 12 Months of Salary.	At least 25 years of service at age 55 or older; or at least 20 years of service at age 60 or older. Annual Benefit = 54.5 percent X last year or highest 12 months of salary; or At least 35 years of service at age 55 or older. Annual Benefit = Years of Service ÷ 55 X Highest 12 Months of Salary.
ORDINARY DISABILITY RETIREMENT	If approved: Annual benefit = 43.6 percent X Final Average (3 yrs.) Salary.	If approved: Annual benefit = 43.6 percent X Final Average (3 yrs.) Salary.	If approved: Annual benefit = 43.6 percent X Final Average (3 yrs.) Salary.	PERS Tier 4 members may be eligible for Disability Insurance Coverage.	PERS Tier 5 members may be eligible for Disability Insurance Coverage.
ACCIDENTAL DISABILITY RETIREMENT	If approved: Annual Benefit = 72.7 percent X Annual Salary at time of accident.	If approved: Annual Benefit = 72.7 percent X Annual Salary at time of accident.	If approved: Annual Benefit = 72.7 percent X Annual Salary at time of accident.	Not Applicable	Not Applicable



### 3) Contributions

The contribution policy for PERS is set by N.J.S.A. 15A and requires contributions by active members and contributing employers. State legislation has modified the amount that is contributed by the State. The State's pension contribution is based on an actuarially determined amount, which includes the employer portion of the normal cost and an amortization of the unfunded accrued liability. Funding for noncontributory group insurance benefits is based on actual claims paid. For Fiscal year 2015 and 2014, the State's pension contribution was less than the actuarial determined amount. The local employers' contribution amounts are based on an actuarially determined rate, which includes the normal cost and unfunded accrued liability. Chapter 19, P.L. 2009 provided an option for local employers of PERS to contribute 50% of the normal and accrued liability contribution amounts certified for payments due in State fiscal year 2009. Such employers will be credited with the full payment and any such amounts will not be included in their unfunded liability. The actuaries will determine the unfunded liability of those retirement systems, by employer, for the reduced normal and accrued liability contributions provided under this law. This unfunded liability will be paid by the employer in level annual payments over a period of 15 years beginning with the payments due in the fiscal year ended June 30, 2012 and will be adjusted by the rate of return on the actuarial value of assets.

Covered Authority employees are required to contribute a percentage of their salary toward their pension benefits. P.L. 2011, c78, effective June 28, 2011, increased the active member contribution rate from 5.5% of annual compensation to 6.5% plus an additional 1% phased-in over 7 years. The payment of automatic cost-of-living adjustment (COLA) additional increases to current and future retirees and beneficiaries was suspended. COLA increases may be reactivated at a future date as permitted by this law. Employee contributions were \$9,089 and \$9,083 for the years ended December 31, 2015 and 2014, respectively. The percentage of employee's contribution rate as a percentage of covered payroll for 2015 and 2014 was 7.0%, and 6.9%, respectively. The payroll subject to pension for the Authority's employees covered by PERS was \$130,000 and \$132,600 for the years ended December 31, 2015 and 2014, respectively. The Authority's total payroll for the years ended December 31, 2015 and 2014 was approximately \$162,000 and \$163,900, respectively.

The Authority is required by statute to contribute to the employee's pension benefits based on an annual actuarial calculation. The valuation is a determination of the financial condition of the retirement system. The PERS employer pension contribution rates were 11.92% and 10.92% for the years ended December 31, 2015 and 2014, respectively. The Authority's required annual contributions to the PERS were \$16,660 and \$16,129 for the years ended December 31, 2015 and 2014, respectively, and are included in the accompanying financial statements. The percentage of employer's contribution rate as a percentage of covered payroll for 2015 and 2014 was 10.28% and 9.84%, respectively. The Authority's required annual contributions represent less than 2% of total contributions by municipalities and local groups to the PERS.

Pension expense recognized in accordance with the requirements of GASB 68 was \$27,077 and \$18,011 at December 31, 2015 and 2014, respectively.

4) Net Pension Liability and Deferred Outflows/Inflows of Resources Related to Pensions

At December 31, 2015 and 2014, the Authority reported a liability of \$435,015 and \$366,300, respectively, for its proportionate share of the collective PERS net pension liability. The net pension liability was measured as of June 30, 2015 and June 30, 2014, respectively, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2014 and July 1, 2013, respectively with amounts rolled forward to the measurement date using update procedures. At June 30, 2015, the Authority's proportion was 1.94%, which was a decrease of 0.02% from 1.96% which was the Authority's proportion measured as of June 30, 2014. The employer allocation percentages are based on the ratio of the contributions of an individual employer to the total contributions to PERS during the measurement period. At December 31, 2015 and 2014, respectively, the Authority reported deferred outflows and deferred inflows of resources related to pensions from the following sources:

	2015		2014	
	Deferred outflows of resources	Deferred inflows of resources	Deferred outflows of resources	Deferred inflows of resources
Differences between expected and actual experience	\$ 10,378	—	—	—
Net difference between projected and actual earnings on pension plan investments	—	6,994	—	21,830
Changes in employer proportion	—	6,661	—	4,546
Changes in assumptions	46,717	—	11,518	—
Employer contribution made subsequent to the measurement date	8,331	—	8,331	—
Total	\$ 65,426	13,655	19,849	26,376

Included in deferred outflows of resources related to pensions at December 31, 2015 and 2014 is \$8,331 from contributions made by the Authority subsequent to the respective measurement date that will be recognized as a reduction of the net pension liability in the following fiscal year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

	2015	2014
Year ended June 30:		
2015	\$ —	(3,340)
2016	9,121	(3,340)
2017	9,121	(3,340)
2018	9,121	(3,340)
2019	14,526	2,117
2020	8,212	931
Total	\$ 50,101	(10,312)

5) Significant Assumptions and Other Inputs Used to Measure Total Pension Liability

The total pension liability for the June 30, 2015 and 2014 measurement date was determined by an actuarial valuation as of July 1, 2014 and 2013, respectively, which was rolled forward to June 30, 2015 and 2014, respectively, using update procedures. The respective actuarial valuations used the following actuarial assumptions.

	2015	2014
Inflation rate	3.04%	3.01%
Salary increases:		
2012–2021	2.15–4.40% based on age	2.15–4.40% based on age
Thereafter	3.15–5.40% based on age	3.15–5.40% based on age
Investment rate of return	7.90%	7.90%

For the July 1, 2014 valuation, mortality rates were based on the RP-2000 Combined Healthy Male and Female Mortality Tables (setback 1 year for males and females) for service retirement and beneficiaries of former members with adjustments for mortality improvements from the base year of 2012 based on Projection Scale AA. The RP-2000 Disabled Mortality Tables (setback 3 years for males and setback 1 year for females) are used to value disabled retirees. For the July 1, 2013 valuation, mortality rates were based on the RP-2000 Combined Healthy Male and Female Mortality Tables (setback 1 year for females) with adjustments for mortality improvements from the base year of 2012 based on Projection Scale AA.

The actuarial assumptions used in the July 1, 2014 and 2013 valuation were based on the results of an actuarial experience study for the period July 1, 2008 to June 30, 2011. It is likely that future experience will not exactly conform to these assumptions. To the extent that actual experience deviates from these assumptions, the emerging liabilities may be higher or lower than anticipated. The more the experience deviates, the larger is the impact on future financial statements.

(a) Long-Term Expected Rate of Return

In accordance with State statute, the long-term expected rate of return on plan investments (7.90% at June 30, 2015 and 2014) is determined by the State Treasurer, after consultation with the Directors of the Division of Investments and Division of Pensions and Benefits, the board of trustees and the actuaries. The long-term expected rate of return was determined using a building block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each

major asset class included in PERS's target asset allocation as of June 30, 2015 and 2014 are summarized in the following table:

Asset class	2015		2014	
	Target allocation	Long-term expected real rate of return	Target allocation	Long-term expected real rate of return
Cash	5.00%	1.04%	6.00%	0.80%
U.S. Treasuries	1.75	1.64	—	—
Investment Grade Credit	10.00	1.79	—	—
Mortgages	2.10	1.62	2.50	2.17
High Yield Bonds	2.00	4.03	5.50	4.82
Inflation-Indexed Bonds	1.50	3.25	2.50	3.51
Broad U.S. Equities	27.25	8.52	25.90	8.22
Developed Foreign Equities	12.00	6.88	12.70	8.12
Emerging Market Equities	6.40	10.00	6.50	9.91
Private Equity	9.25	12.41	8.25	13.02
Hedge Funds/Absolute Return	12.00	4.72	12.25	4.92
Real Estate (Property)	2.00	6.83	3.20	5.80
Commodities	1.00	5.32	2.50	5.35
Global Debt ex US	3.50	(0.40)	—	—
REIT	4.25	5.12	—	—
Core Bonds	—	—	1.00	2.49
Intermediate-Term Bonds	—	—	11.20	2.26

(b) *Discount Rate*

The discount rate used to measure the total pension liability was 4.90% and 5.39% as of June 30, 2015 and 2014, respectively. This single blended discount rate was based on the long-term expected rate of return on pension plan investments of 7.90%, and a municipal bond rate of 3.80% and 4.29% as of June 30, 2015 and 2014, respectively, based on the Bond Buyer 20-Bond GO Index which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current member contribution rates and that contributions from employers will be made based on the average of the last five years of contributions made in relation to the last five years of actuarially determined contributions. Based on those assumptions, the plan's fiduciary net position was projected to be available to make projected future benefit payments of current plan members through 2033. Therefore, the long-term expected rate of return on plan investments was applied to projected benefit payments through 2033, and the municipal bond rate was applied to projected benefit payments after that date in determining the total pension liability.

(c) *Sensitivity of the Authority's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate*

The following presents the Authority's proportionate share of the net pension liability of the participating employers as of June 30, 2015 and 2014, respectively, calculated using the discount rate as disclosed above as well as what the proportionate net pension liability would be if it was calculated using a discount rate that is 1-percentage point lower or 1-percentage-point higher than the current rate:

	<u>1% Decrease</u>	<u>Current discount rate</u>	<u>1% Increase</u>
2015 (3.90%, 4.90%, and 5.90%)	540,670	435,015	346,434
2014 (4.39%, 5.39%, and 6.39%)	460,817	366,300	286,929

PERS issues a stand-alone financial report that is available to the public. The report may be accessed via the State of New Jersey's website at: <http://www.state.nj.us/treasury/pensions/pdf/financial/gasb68-pers16.pdf>

**Deferred Compensation Plan**

The Authority adopted the New Jersey Turnpike Authority Employees' Deferred Compensation Plan (Deferred Compensation Plan) effective as of January 1, 1999, in accordance with the provisions of Section 27:23-1, et seq., of the New Jersey Revised Statutes and as provided in Section 457 of the Internal Revenue Code of 1986, as amended (Code). The Deferred Compensation Plan was amended and restated effective as of January 1, 2011. All permanent employees are eligible to participate in the plan, which permits participants to defer annually a portion of their salary. The Authority does not make any contributions to the plan. Employees of the South Jersey Transportation Authority and the Burlington County Bridge Commission are also eligible to participate in the plan. All amounts of compensation deferred under the plan, all property and rights purchased with these amounts, and all income attributable to these amounts, property, or rights are solely the property of the employees.

**(12) Other Postemployment Benefits**

The Authority provides medical, prescription drug, vision, dental and Medicare Part B reimbursement to retirees and their covered dependents, in accordance with the terms of the applicable collective bargaining agreements or Authority personnel policies for non-bargaining unit members. The Authority maintains single-employer, self-funded health plans administered by third party claims administrators. All active employees who retire from the New Jersey Turnpike Authority and meet the eligibility criteria will receive these benefits. The plan does not issue a stand-alone report.

The Authority currently funds the cost to provide postemployment benefits on a pay-as-you-go basis. For the years ended December 31, 2015 and 2014, approximately 202 and 162 retirees, respectively, contributed to their healthcare cost, in accordance with the provisions of agreements in effect at the time of their retirement and P.L. 2011, c. 78, effective June 28, 2011.

The Authority establishes and has the power to amend benefits and contribution obligations, subject to collective negotiations agreements to the extent they do not conflict with P.L. 2011, c. 78 mandated by the State of New Jersey.

As required by the accounting standards of GASB 45, the Authority must report costs associated with “other postemployment benefits” (OPEB). OPEB costs are actuarially calculated based on benefits that current and retired employees have accrued as a result of years of service. The Standard sets the method for determining the Authority’s postemployment benefits accrual, the Annual Required Contribution (ARC), to include both the value of benefits earned during the year (Normal Cost) and an amortizing of the unfunded actuarial accrued liability over a period not to exceed thirty years. The unfunded actuarial accrued liability is amortized using a level percentage of payroll for a period of 30 years with assumed payroll increases of 3% per year.

The following table shows the components of the Authority’s annual OPEB cost as of December 31, 2015 and 2014:

	<b>December 31</b>	
	<b>2015</b>	<b>2014</b>
Annual required contribution (ARC)	\$ 100,099	75,545
Interest on net OPEB obligation	12,796	9,836
Adjustment to annual required contribution	(12,713)	(9,745)
Total annual OPEB cost (AOC)	100,182	75,636
Contributions made	44,224	38,577
Increase in net OPEB obligation	55,958	37,059
Net OPEB obligation, beginning of year	319,906	282,847
Net OPEB obligation, end of year	\$ 375,864	319,906

The Authority’s annual OPEB cost, the percentage of annual OPEB cost contributed to the plan and the net OPEB obligation (NOO) the for years ending December 31, 2015, 2014 and 2013, respectively, were as follows:

<b>Year ending</b>	<b>Annual OPEB cost</b>	<b>Percentage of annual OPEB cost contributed*</b>	<b>Net OPEB obligation</b>
December 31, 2015	\$ 100,182	44.1%	\$ 375,864
December 31, 2014	75,636	51.0	319,906
December 31, 2013	75,608	50.2	282,847

\* Based on expected benefit payments plus Retiree Drug Subsidy for the applicable year end.

The covered payroll (annual payroll of active employees covered by the plan) was \$128,816, and the ratio of the UAAL to covered payroll was 1106%.

At January 1, 2015, the actuarial accrued liability (AAL) for postemployment benefits earned was approximately \$1,425,000, based on certain actuarial methods and assumptions. Since this liability has not been pre-funded as of the valuation date, the unfunded actuarial accrued liability (UAAL) was \$1,425,000. The AAL represents approximately 75% of the present value of all projected benefits.

At the January 28, 2014 Board of Commissioners Meeting, the Authority approved a plan to establish an Internal Revenue Code (IRC) Section 115 Trust to hold employer contributions for other post-retirement benefits (OPEB) obligations. The plan approved by the Board of

Commissioners includes (1) the establishment of an OPEB Committee comprised of Authority personnel, (2) the issuance of Request For Proposals for an institutional trustee and an investment manager/advisor for the plan assets, (3) the development of an OPEB Trust agreement with outside counsel, (4) obtaining a private letter ruling from the Internal Revenue Service, and (5) obtaining all necessary legal opinions from outside general counsel and bond counsel. As of December 31, 2015, the trust has not been established

The actuarial valuation date is January 1, 2015. Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events in the future. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. The required schedule of funding progress presented as required supplementary information provides multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

#### ***Actuarial Methods and Assumptions***

Projections of benefits are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits in force at the valuation date and the pattern of sharing benefit costs between the employer and the plan members to that point. Actuarial calculations reflect a long-term perspective and employ methods and assumptions that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

For the most recent actuarial valuation dated January 1, 2015, the projected unit credit cost method was used as the actuarial cost method. The actuarial assumptions included an investment rate of return of 4%, and an annual healthcare cost trend rate of 9.5% medical and grading down to an ultimate rate of 5% after 9 years. For prescription drug benefits, the initial trend rate is 10.5%, decreasing to a 5.0% long-term trend rate after 11 years. For Medicare Part B reimbursement, the trend rate is 5.0% and for dental benefits the trend is 3.0%. The amortization method used was the level percentage of payroll, for a period of 30 years, with an assumption that payroll increases by 3% per year.

The unfunded actuarial accrued liability (UAAL) as of January 1, 2015 is approximately \$1,425,271, an increase of \$334,109 from the prior valuation UAAL of \$1,091,162. This increase is due to the demographic changes since last valuation, changes in premium rates on which the retiree contributions are based, changes in demographic assumptions, and changes in per capita claims and trends reflecting more recent claims experience and future expectations.

The annual OPEB cost increased to \$100,182 for the year ended December 31, 2015 from \$75,636 for the year ended December 31, 2014. The increase is due to increase in normal cost as compared to prior valuation period, increase in amortization of UAAL and additional adjustments for timing differences between cash and accrual accounting, to prevent double counting of OPEB plan costs.

The required schedule of funding progress immediately following the notes to the financial statements presents multi-year trend information as of January 1, 2015 and whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.



### (13) Risk Management and Self-Insurance

The New Jersey Turnpike Authority maintains a comprehensive insurance program, which affords various coverage including but not limited to, excess liability (general, automobile, and police professional), excess workers compensation, bridge and property insurance, employee medical benefits, public officials liability, employment practices, commercial crime, cyber liability, and owner controlled insurance programs (OCIP). The following table provides the amount of deductible and/or self-insurance retention amounts and frequency in 2015 and 2014 for select coverages:

Type of insurance coverage	Deductible/retention
Excess Liability (general liability)	\$ 2,000 per occurrence (\$3,000 aggregate)
Excess Liability (automobile liability)	5,000 per occurrence (2014 and 2015)
Excess Liability (State police)	2,000 per occurrence
Bridge and Property	2,000 per occurrence
Commercial Crime	50 per occurrence
Cyber Insurance	250 per occurrence
Employee Medical Benefits	350 per claimant
Public Official and Employment Practices Liability	500 per occurrence
Professional Liability Insurance Architects & Engineers	100 for Project value up to 50,000 and 250
Excess Workers Compensation	1,250 per occurrence
OCIP (Interchange 6-9 Widening Project – general and workers compensation)	500 per occurrence
OCIP (other construction projects – general and workers compensation)	500 per occurrence

The various insurance programs named and listed above afford limits of liability and amounts of insurance in excess of such self-insured retentions and/or deductibles to protect the Authority against losses resulting from third-party liability, workers compensation, employer's liability, direct damage claims and loss of revenue.

Coverage for public officials and employment practices liability, crime and cyber insurance all contain proportional ranges of self-insured retentions and/or deductibles. The OCIPs also provide other insurance coverage for the benefit of the Authority and its contractors, subcontractors, consultants and sub-consultants at proportional ranges of self-insured retentions and/or deductibles. Both OCIPs afford limits of liability and amounts of insurance in excess of such self-insured retentions and/or deductibles to protect the Authority against losses resulting from claims related to the various construction contracts.



Claim liabilities are recorded when it is probable that a loss occurred and the amount of that loss can be reasonably estimated. The liabilities include a provision for case reserves as well as incurred but not reported and future development of known cases. The following tables present the changes in claims liabilities for the years ended December 31, 2015 and 2014:

	December 31, 2014	Change in estimate	Payments	December 31, 2015
General liability	\$ 3,356	523	(523)	3,356
Auto liability	777	57	(57)	777
Workers' compensation	25,814	5,722	(5,722)	25,814
Owner controlled insurance program (OCIP)	—	57,568	(28,170)	29,398
Total	\$ 29,947	63,870	(34,472)	59,345

	December 31, 2013	Change in estimate	Payments	December 31, 2014
General liability	\$ 2,410	1,284	(338)	3,356
Auto liability	759	590	(572)	777
Workers' compensation	25,579	9,430	(9,195)	25,814
Total	\$ 28,748	11,304	(10,105)	29,947

**(14) Blended Component Unit – Garden State Arts Foundation, Inc.**

The Garden State Arts Foundation, Inc. (formerly known as the Garden State Arts Center Foundation) was established in 1984 pursuant to the provisions of Title 15A, Corporations-Non-Profit, of the New Jersey State Statutes. The purpose of the Foundation is to receive contributions from the public or other entities, engage in such fundraising activities as the members deem appropriate, fund and administer an annual scholarship program to provide scholarships to students pursuing an undergraduate degree with a performing arts concentration at four-year New Jersey colleges and universities, support the study of performing arts in New Jersey and support educational and charitable activities. The Foundation provides free entertainment at the PNC Bank Arts Center and various outreach locations throughout the State of New Jersey for New Jersey's senior citizens, school children, and other deserving residents. The Foundation's members include the Commissioners of the New Jersey Turnpike Authority. The Foundation is qualified as a tax-exempt organization as defined by Section 501(c) (3) of the Internal Revenue Code.

The condensed statements of net position and statements of revenues, expenses, and changes in net position of the Foundation as of and for the years ended December 31, 2015 and 2014 are as follows:

Summary of Net Position			
Assets		2015	2014
Current assets		\$ 739	975
Total assets		<u>\$ 739</u>	<u>975</u>
Liabilities			
Liabilities		\$ 2	—
Total liabilities		<u>\$ 2</u>	<u>—</u>
Net Position			
Net position:			
Expendable – restricted by donor agreements		\$ —	75
Unrestricted		<u>737</u>	<u>900</u>
Total net position		<u>\$ 737</u>	<u>975</u>

Summary of Revenues, Expenses, and Changes in Net Position			
		2015	2014
Operating revenues		\$ 531	524
Operating expenses		<u>774</u>	<u>665</u>
Operating loss		(243)	(141)
Nonoperating revenues		<u>5</u>	<u>2</u>
Decrease in net position		(238)	(139)
Net position as of beginning of year		<u>975</u>	<u>1,114</u>
Net position as of end of year		<u>\$ 737</u>	<u>975</u>

## (15) Litigation

The Authority is a party to various legal actions and regulatory reviews arising in the ordinary course of its operations which includes investigation, remediation of existing and projected action level environmental conditions. The Authority is contingently liable under pending lawsuits and claims, relating principally to construction programs and personal injury claims, in which the Authority is named a defendant. The Authority believes the aggregate liability of the Authority under such actions, if adversely determined, would not materially adversely affect the financial position of the Authority and sufficient funds are expected to be available to satisfy any payments required in connection therewith.

The Authority is defending several lawsuits arising from its operations and its contract with the New Jersey State Police for provision of police services on the Turnpike and the Parkway. The contract includes an indemnification provision requiring the Authority to defend and indemnify the State troopers individually, the State Police and the State under certain circumstances. The Authority, under the indemnification provisions of the contract, may be responsible for a State trooper's liability for negligent acts, but not for intentional wrongful acts beyond the scope of employment. The Authority believes the aggregate liability of the Authority under such actions, if adversely determined, would not materially adversely affect

the financial position of the Authority and sufficient funds are expected to be available to satisfy any payments required in connection therewith.

Soil and/or groundwater contamination found on off-site properties and waterway contamination that resulted from or is inferred to be the result of operations conducted at roadway facilities has led to litigation by others against the Authority and may lead to additional litigation in the future. Claims for reimbursement of remediation costs filed by the parties undertaking remediation activities at these properties may be forthcoming. In some cases the Authority may be required to undertake, fund or reimburse others for remediation activities at properties where the contamination has been discovered. The ultimate cost, if any, of these potential liabilities is unknown at this time.

#### **(16) Commitments and Contingent Liabilities**

The Authority has open commitments related to construction contracts totaling approximately \$1,175,668 and \$1,411,224 as of December 31, 2015 and 2014, respectively. This work relates to the Authority's \$7 billion Capital Improvement Program and will be completed over the next several years.

Under the terms of an agreement dated April 27, 1984 and amendments dated August 1, 1995 and March 27, 2000, the Authority agreed to make annual payments to the State of New Jersey to assist in transportation purposes. These payments are \$22,000 annually and are due until all obligations of the New Jersey Transportation Trust Fund Authority, as set forth in the 2000 Amendment, are paid for or such payment has been provided for. The payments are made from the General Reserve Fund and are subordinate to debt service payments on all outstanding bonds and all other obligations under the Authority's General Bond Resolution.

Under the terms of a State Transportation Projects Funding Agreement dated September 30, 2011, the Authority agreed to make annual payments to the State of New Jersey for the development of state transportation purposes. These payments total \$324,000 in calendar 2013, \$324,000 in calendar 2014, \$324,000 in calendar 2015 and \$162,000 in calendar 2016. The agreement terminates on June 30, 2016. The payments are made from the General Reserve Fund and are subordinate to debt service payments on all outstanding bonds and all other obligations under the Authority's General Bond Resolution.

The Authority also made annual payments to the state of \$8,001 in 2015 and 2014 for feeder road maintenance provided by the New Jersey Department of Transportation. The current agreement expires on June 30, 2016 and is expected to be renewed annually.

On September 23, 2015, the Authority has entered into a lease agreement (with an option for purchase) for a new office building located at 1 Hess Plaza. By entering into this lease agreement, this allows the Authority to house its entire administrative staff in one location. The Authority will begin renting the property for 2 years beginning on February 1, 2017 and then the Authority can purchase the property.

#### **(17) Subsequent Events**

On February 2, 2016, the Authority issued \$149,995 of Series 2016A Bonds to refund the Series 2004B Bonds. The bonds bear interest at fixed rates from 3.125% to 5.0%, and mature from January 1, 2031 to January 1, 2035. The interest on the Series 2016A Bonds is paid semi-annually. The refunding resulted in approximately \$29,000 in net present value savings from cash flow.

On June 28, 2016, the Authority's Board of Commissioners authorized the Authority to enter into a State Transportation Projects Funding Agreement ("Funding Agreement") with the Treasurer of the State of New Jersey. Under the Funding Agreement, the Authority will make annual payments to the State of New Jersey to be used for statewide transportation purposes for a five year period beginning on July 1, 2016 and ending on June 30, 2021. The Authority will make annual payments, payable quarterly, of \$204,000 per year in state fiscal years 2017 and 2018, and \$129,000 per year in state fiscal years 2019, 2020, and 2021. The total payments over the five-year period will be \$795,000, nearly half of the total payments required under the expiring agreement. Payments are to be made only from legally available revenues in the General Reserve Fund, and are subordinate to the payments required to be made to the Authority's bondholders and all other payments required to be made under the Authority's General Bond Resolution. The Board of Commissioners also authorized the Authority to enter into a Feeder Road Maintenance and Cost Sharing Agreement with the State for the period July 1, 2016 through June 30, 2023, a term of seven years. Under the terms of the new Feeder Road Agreement, the State will continue to reconstruct, maintain and repair 280 miles of feeder roads leading to 20 interchanges on the New Jersey Turnpike and 36 interchanges on the Garden State Parkway. The Authority will reimburse the State on an annual basis, payable quarterly, \$8,000 in state fiscal year 2017, \$5,000 in state fiscal year 2018, \$4,000 in state fiscal year 2019, \$2,750 in state fiscal year 2020, and \$2,500 per year in state fiscal years 2021, 2022 and 2023, for a total of \$27,250 over the seven year term. If the payments had remained at the current contractual amount of \$8,000 per year, the Authority would have paid \$56,000 over the seven year term of the new Feeder Road Agreement. Thus, the new Feeder Road Agreement represents a reduction of \$28,750 from the current Feeder Road Agreement.

On June 28, 2016, the Authority's Board of Commissioners rescinded its prior approval from August 2009, under Agenda Item No. 195-09, to enter into a multi-party Memorandum of Agreement (MOA) with the Port Authority of New York and New Jersey, New Jersey Department of Transportation (NJDOT), City of Elizabeth, and County of Union to address the funding of roadway improvements along North Avenue in the vicinity of New Jersey Turnpike Interchange 13A. The MOA was to include a financial contribution by the Authority in the amount of \$45,000, payable annually at \$4,500 per year for a ten-year period with payments to be made from the Authority's General Reserve Fund. The MOA was never executed by the parties because the project has not advanced. Authority staff has been informed that the project has been removed from the NJDOT's current capital plan. If the project becomes active in the future, the State has agreed to relieve the Authority of any financial obligation. The Authority had included a \$4,500 payment in its 2016 General Reserve Fund spending budget in the event the MOA was executed this year, and has included the \$4,500 annual payment from its General Reserve Fund in each of the subsequent years as part of its Financial Plan projections. By rescinding this authorization, the Authority will save \$45,000 over a 10 year period beginning in calendar 2016.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)  
Required Supplementary Information (Unaudited)  
Schedule of Funding Progress – Other Postemployment Benefits Plan  
December 31, 2015  
(In thousands)

<b>Valuation date</b>		<b>Actuarial value of assets (a)</b>	<b>Actuarial accrued liability – projected unit credit (b)</b>	<b>Unfunded actuarial accrued liability (b)–(a)</b>	<b>Funded ratio (a)/(b)</b>	<b>Covered payroll (c)</b>	<b>Unfunded actuarial accrued liability as a percentage of covered payroll ((b) – (a))/(c)</b>
01/01/2011	\$	—	1,218,806	1,218,806	—	157,396	774%
01/01/2013		—	1,091,162	1,091,162	—	110,791	985
01/01/2015		—	1,425,271	1,425,271	—	128,816	1,106

See accompanying independent auditors' report.

**Schedule 2****NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

## Required Supplementary Information (Unaudited)

## Schedules of Proportionate Share, Employer Contributions and Notes

## State of New Jersey Public Employees' Retirement System

December 31, 2015

(In thousands)

**Schedule of Proportionate Share of Net Pension Liability at June 30 (measurement date)**

	<b>2015</b>	<b>2014</b>	<b>2013</b>
Proportion of net pension liability – Local Group	1.9379%	1.9564%	1.9846%
Proportion of net pension liability – Total Plan	1.5352	1.6194	1.4164
Proportionate share of net pension liability	\$ 435,015	366,300	379,299
Covered-employee payroll (approximate)	162,000	163,900	162,500
Proportionate share of net pension liability as a percentage of covered-employee payroll	268.53%	223.49%	233.41%
Plan fiduciary net position as a percentage of total pension liability	38.21%	42.74%	40.71%

**Schedule of Employer Contributions**

	<b>2015</b>	<b>2014</b>	<b>2013</b>
Contractually required contributions	\$ 16,660	16,129	14,954
Contributions in relation to the contractually required contributions	16,660	16,129	14,954
Contribution deficiency (excess)	\$ —	—	—
Covered-employee payroll (approximate)	162,000	163,900	162,500
Contributions as a percentage of covered-employee payroll	10.28%	9.84%	9.20%

**Notes**

Changes in benefit terms – There were no significant changes in benefits for the July 1, 2014 and 2013 actuarial valuation used to determine required contributions.

Changes in assumptions – There were no significant changes in assumptions except for the annual change in the discount rate to 4.90% from 5.39% for the July 1, 2014 and 2013 actuarial valuation used to determine required contribution.

See accompanying independent auditors' report.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Net Position – Reconciliation of Bond Resolution to GAAP

December 31, 2015

(With summarized comparative financial information as of December 31, 2014)

(In thousands)

Assets	Revenue	Construction	Maintenance reserve	Special project reserve	General reserve	Charges	Debt service	Debt reserve	Total bond resolution	Garden State Arts Foundation	GAAP Adjustments	Total 2015 GAAP Financials	Total 2014 GAAP Financials
Current assets:													
Cash	\$ 163,780	—	5,543	2,682	3,145	—	—	—	175,150	739	—	175,889	202,456
Restricted cash	—	97,265	—	—	—	83	63,883	—	161,231	—	—	161,231	87,276
Investments (1)	258,274	—	24,284	54,389	254,186	—	—	—	591,133	—	—	591,133	502,669
Restricted investments	—	—	—	—	—	—	338,739	151,063	489,802	—	—	489,802	569,949
Receivables, net of allowance	69,884	—	—	—	12,405	—	—	—	82,289	—	—	82,289	56,180
Restricted receivables	—	—	—	—	—	—	—	—	—	—	—	—	75
Inventory	20,105	—	—	—	—	—	—	—	20,105	—	—	20,105	20,474
Due from State of New Jersey	—	—	—	—	560	—	—	—	560	—	—	560	508
Restricted deposits	2,420	2,428	—	—	22,312	—	—	—	27,160	—	—	27,160	25,336
Prepaid expenses	4,077	—	—	—	—	—	—	—	4,077	—	—	4,077	3,943
Interfund	(140,570)	10,235	72	33	132,507	—	(405)	(1,872)	—	—	—	—	—
Total current assets	377,970	109,928	29,899	57,104	425,115	83	402,217	149,191	1,551,507	739	—	1,552,246	1,468,866
Noncurrent assets:													
Restricted investments	—	843,685	—	—	—	—	—	439,720	1,283,405	—	(93,175)	1,190,230	1,164,147
Capital assets, net of accumulated depreciation	—	10,213,622	339,231	74,715	144,125	—	—	—	10,771,693	—	—	10,801,091	10,033,353
Total noncurrent assets	—	11,057,307	339,231	74,715	144,125	—	—	439,720	12,055,098	—	(63,777)	11,991,321	11,197,500
Total assets	\$ 377,970	11,167,235	369,130	131,819	569,240	83	402,217	588,911	13,606,605	739	(63,777)	13,543,567	12,666,366
<b>Deferred Outflows</b>													
Deferred outflows:													
Accumulated decrease in fair value of hedging derivatives	\$ —	—	—	—	—	—	—	—	—	—	4,807	4,807	6,067
Deferred amount on refunding	—	43,971	—	—	—	—	—	—	43,971	—	105,726	149,697	162,311
Deferred amount relating to pensions	—	—	—	—	—	—	—	—	—	—	65,426	19,849	19,849
Total deferred outflows	\$ —	43,971	—	—	—	—	—	—	43,971	—	175,959	219,930	188,227
<b>Liabilities</b>													
Current liabilities:													
Accounts payable and accrued expenses	\$ 48,570	97,336	8,275	5,327	3,269	—	—	—	162,777	2	24,482	187,261	167,657
Funds held in trust	205,831	31,350	1,518	868	635	—	—	—	240,202	—	—	240,202	216,773
Due to State of New Jersey	2,683	—	—	—	—	—	—	—	2,683	—	—	2,683	2,594
Accrued interest payable	—	—	—	—	—	—	260,102	—	260,102	—	—	260,102	255,972
Unearned revenue	4,801	—	—	—	37,546	—	—	—	42,347	—	—	42,347	50,467
Current portion of bonds payable	—	142,115	—	—	—	—	—	—	142,115	—	—	142,115	164,205
Current portion of hybrid instrument borrowing	—	—	—	—	—	—	—	—	—	—	19,012	19,012	23,226
Current portion of other long-term liabilities	—	—	—	—	150	—	—	—	150	—	9,307	9,457	7,854
Total current liabilities	261,885	270,801	9,793	6,195	41,600	—	260,102	—	850,376	2	52,801	903,179	888,748
Noncurrent liabilities:													
Bonds payable, net	—	11,109,048	—	—	—	—	—	—	11,109,048	—	—	11,109,048	10,460,766
Hybrid instrument borrowing	—	—	—	—	—	—	—	—	—	—	92,514	92,514	106,955
Other long-term obligations	31,427	—	—	—	21,604	—	—	—	53,031	—	82,702	135,733	102,561
Other postemployment benefit liability	—	—	—	—	60,825	—	—	—	60,825	—	315,039	375,864	319,906
Interest rate swaps liabilities	—	—	—	—	—	—	—	—	—	—	40,199	45,366	45,366
Net pension liability	—	—	—	—	—	—	—	—	—	—	435,015	435,015	366,300
Total noncurrent liabilities	31,427	11,109,048	—	—	82,429	—	—	—	11,222,904	—	965,469	12,188,373	11,401,854
Total liabilities	\$ 293,312	11,379,849	9,793	6,195	124,029	—	260,102	—	12,073,280	2	1,018,270	13,091,552	12,290,602
<b>Deferred Inflows</b>													
Deferred inflows:													
Deferred amount relating to pensions	\$ —	—	—	—	—	—	—	—	—	—	13,655	13,655	26,376
Total deferred inflows	\$ —	—	—	—	—	—	—	—	—	—	13,655	13,655	26,376
<b>Net Position</b>													
Net position:													
Net investment in capital assets	\$ —	(177,072)	339,231	74,715	144,125	—	—	588,911	969,910	—	(111,526)	858,384	710,972
Restricted under trust agreements	—	—	—	—	22,313	83	142,115	—	164,511	—	—	164,511	183,764
Unrestricted	84,658	8,429	20,106	50,909	278,773	—	—	—	442,875	737	(808,217)	(364,605)	40,188
GASB 68 adoption	—	—	—	—	—	—	—	—	—	—	—	—	(397,309)
Total net position	\$ 84,658	(168,643)	359,337	125,624	445,211	83	142,115	588,911	1,577,296	737	(919,743)	658,290	537,615

(1) Included in investments above at December 31, 2015 is \$37,363 the Authority has designated as reserved for national toll interoperability requirements under Federal Law P.L. 112-131, the Moving Ahead for Progress in the 21st Century Act (Map-21) (\$10,500), reconstruction of the Grover Cleveland Service Area (\$5,075), widening of New Jersey Turnpike Interchanges 6-9 (\$20,000) and emergency maintenance work (\$1,788). In 2015 there were reductions in investments for Emergency Maintenance by \$5,712 and Grover Cleveland Service Area by \$3,684, for a total of \$ 9,396.

See accompanying independent auditors' report.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Revenues, Expenses, and Changes in Net Position – Reconciliation of Bond Resolution to GAAP

Year ended December 31, 2015

(With summarized comparative financial information for the year ended December 31, 2014)

(In thousands)

	Revenue	Construction	Maintenance reserve	Special project reserve	General reserve	Charges	Debt service	Debt reserve	Total bond resolution	Garden State Arts Foundation	GAAP Adjustments	Total 2015 GAAP Financials	Total 2014 GAAP Financials
Operating revenues:													
Toll revenue	\$ 1,523,133	—	—	—	—	—	—	—	1,523,133	—	—	1,523,133	1,445,748
E-ZPass fees	56,262	—	—	—	—	—	—	—	56,262	—	—	56,262	52,773
Concession revenue	38,993	—	—	—	—	—	—	—	38,993	—	—	38,993	36,842
Miscellaneous revenue	13,104	—	—	—	—	—	—	—	13,104	531	—	13,635	14,377
Total operating revenues	1,631,492	—	—	—	—	—	—	—	1,631,492	531	—	1,632,023	1,549,740
Operating expenses:													
Maintenance of roadway, buildings and equipment	201,129	—	6,337	11,644	29,291	—	—	—	248,401	—	19,600	268,001	245,269
Toll collection	157,558	—	—	82	7,085	—	—	—	164,725	—	7,899	172,624	168,898
State police and traffic control	78,290	—	—	569	1,374	—	—	—	80,233	—	1,774	82,007	76,469
Technology	28,629	—	—	1,808	2,579	—	—	—	33,016	—	3,388	36,404	30,936
General administrative costs	37,847	—	—	206	7,063	—	—	—	45,116	774	4,624	50,514	43,353
Depreciation	—	274,991	22,563	7,988	10,835	—	—	—	316,377	—	—	316,377	201,001
Total operating expenses	503,453	274,991	28,900	22,297	58,227	—	—	—	887,868	774	37,285	925,927	765,926
Operating income (loss)	1,128,039	(274,991)	(28,900)	(22,297)	(58,227)	—	—	—	743,624	(243)	(37,285)	706,096	783,814
Nonoperating revenues (expenses):													
Build America Bonds subsidy	75,908	—	—	—	—	—	—	—	75,908	—	—	75,908	75,745
Payments to the State of New Jersey	—	—	—	—	(354,001)	—	—	—	(354,001)	—	—	(354,001)	(354,001)
Interest expense, Turnpike Revenue Bonds	—	(17,754)	—	—	—	—	(519,311)	—	(537,065)	—	226,702	(310,363)	(205,195)
Other bond expenses	—	(1,482)	—	—	(689)	(581)	—	—	(2,752)	—	—	(2,752)	(4,738)
Sale of capital assets	—	(248)	—	—	—	—	—	—	(248)	—	—	(248)	(4,763)
Investment income (loss)	1,125	1,946	45	47	880	—	256	9,673	13,972	5	(11,574)	2,403	(32,312)
Arts Center	3,632	—	—	—	—	—	—	—	3,632	—	—	3,632	3,530
Total nonoperating revenues (expenses), net	80,665	(17,538)	45	47	(353,810)	(581)	(519,055)	9,673	(800,554)	5	215,128	(585,421)	(521,734)
Income before interfund transfers	1,208,704	(292,529)	(28,855)	(22,250)	(412,037)	(581)	(519,055)	9,673	(56,930)	(238)	177,843	120,675	262,080
Interfund transfers	(1,208,704)	334,242	87,013	50,252	418,646	535	496,965	17,931	196,880	—	(196,880)	—	—
Net change in fund balance/change in net position	—	41,713	58,158	28,002	6,609	(46)	(22,090)	27,604	139,950	(238)	(19,037)	120,675	262,080
Net position (deficit) – beginning of year	84,658	(210,356)	301,179	97,622	438,602	129	164,205	561,307	1,437,346	975	(900,706)	537,615	669,787
GASB 68 adoption	—	—	—	—	—	—	—	—	—	—	—	—	(394,252)
Net position (deficit) – end of year	\$ 84,658	(168,643)	359,337	125,624	445,211	83	142,115	588,911	1,577,296	737	(919,743)	658,290	537,615

See accompanying independent auditors' report.



**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Cash Flows – Reconciliation of Bond Resolution to GAAP

Year ended December 31, 2015

(With summarized comparative financial information for the year ended December 31, 2014)

(In thousands)

	Revenue	Construction	Maintenance reserve	Special project reserve	General reserve	Charges	Debt service	Debt reserve	Total bond resolution	Garden State Arts Foundation	GAAP Adjustments	Total 2015 GAAP Financials	Total 2014 GAAP Financials
Cash flows from operating activities:													
Receipts from customers and patrons	\$ 1,617,415	—	—	—	—	—	—	—	1,617,415	606	—	1,618,021	1,551,259
Payments to suppliers	(213,711)	—	(6,337)	(14,476)	(38,969)	—	—	—	(273,493)	(771)	—	(274,264)	(246,828)
Payments to employees	(162,012)	—	—	—	—	—	—	—	(162,012)	—	—	(162,012)	(163,938)
Payments for self insured health benefits claims	(88,620)	—	—	—	—	—	—	—	(88,620)	—	—	(88,620)	(85,191)
Net cash provided by (used in) operating activities	1,153,072	—	(6,337)	(14,476)	(38,969)	—	—	—	1,093,290	(165)	—	1,093,125	1,055,302
Cash flows from noncapital financing activities:													
Payments to State of New Jersey	—	—	—	—	(354,001)	—	—	—	(354,001)	—	—	(354,001)	(354,001)
Proceeds from Arts Center	3,632	—	—	—	—	—	—	—	3,632	—	—	3,632	3,530
Net cash provided by (used in) noncapital financing activities	3,632	—	—	—	(354,001)	—	—	—	(350,369)	—	—	(350,369)	(350,471)
Cash flows from capital and related financing activities:													
Proceeds acquired from new capital debt	—	1,201,708	—	—	—	—	—	—	1,201,708	—	—	1,201,708	1,479,788
Purchases and sales of capital assets, net	—	(926,546)	(81,419)	(14,637)	(23,935)	—	—	—	(1,046,537)	—	—	(1,046,537)	(1,176,778)
Principal paid on capital debt	—	(164,205)	—	—	—	—	—	—	(164,205)	—	—	(164,205)	(148,565)
Principal paid on defeased capital debt	—	(375,585)	—	—	—	—	—	—	(375,585)	—	—	(375,585)	(360,530)
Proceeds from Build America Bonds subsidy	75,908	—	—	—	—	—	—	—	75,908	—	—	75,908	75,745
Interest paid on capital debt	—	(48,901)	—	—	—	—	(515,182)	—	(564,083)	—	172,531	(391,552)	(235,894)
Payments for bond expenses	—	(1,482)	—	—	(689)	(581)	—	—	(2,752)	—	—	(2,752)	(4,738)
Interfund Transfers related to capital and related financing activities	(1,172,655)	323,764	86,755	51,147	397,324	535	497,163	15,137	199,170	—	(199,170)	—	—
Net cash (used in) provided by capital and related financing activities	(1,096,747)	8,753	5,336	36,510	372,700	(46)	(18,019)	15,137	(676,376)	—	(26,639)	(703,015)	(370,972)
Cash flows from investing activities:													
Purchases of investments	(2,495,985)	(1,559,342)	(287,324)	(272,842)	(2,402,888)	(4,162)	(814,023)	(530,456)	(8,367,022)	—	—	(8,367,022)	(7,648,226)
Sales and maturities of investments	2,414,125	1,559,358	291,040	250,959	2,414,749	4,187	894,324	504,112	8,332,854	—	—	8,332,854	7,289,669
Interest received	12	2,773	43	41	944	—	153	11,206	15,172	4	26,639	41,815	35,392
Net cash provided by (used in) investing activities	(81,848)	2,789	3,759	(21,842)	12,805	25	80,454	(15,138)	(18,996)	4	26,639	7,647	(323,165)
Net increase (decrease) in cash	(21,891)	11,542	2,758	192	(7,465)	(21)	62,435	(1)	47,549	(161)	—	47,388	10,694
Cash – beginning of year	185,671	85,723	2,785	2,490	10,610	104	1,448	1	288,832	900	—	289,732	279,038
Cash – end of year	\$ 163,780	97,265	5,543	2,682	3,145	83	63,883	—	336,381	739	—	337,120	289,732
Reconciliation of operating income (loss) to net cash provided by (used in) operating activities:													
Operating income	\$ 1,128,039	(274,991)	(28,900)	(22,297)	(58,227)	—	—	—	743,624	(243)	(37,285)	706,096	783,814
Adjustments to reconcile operating income (loss) to net cash provided by (used in) operating activities:													
Depreciation expense	—	274,991	22,563	7,988	10,835	—	—	—	316,377	—	—	316,377	201,001
Changes in assets and liabilities:													
Receivables	(13,921)	—	—	108	(12,347)	—	—	—	(26,160)	75	—	(26,085)	21,920
Inventory	370	—	—	—	—	—	—	—	370	—	—	370	(1,783)
Other assets	(135)	—	—	—	—	—	—	—	(135)	—	—	(135)	316
Accounts payable and accrued expenses	1,163	—	—	(515)	2,294	—	—	—	2,942	3	—	2,945	3,840
Unearned revenue	(156)	—	—	—	(7,964)	—	—	—	(8,120)	—	—	(8,120)	(1,404)
Other liabilities	37,712	—	—	240	(610)	—	—	—	37,342	—	(479)	36,863	10,166
Other postemployment benefit liability	—	—	—	—	27,500	—	—	—	27,500	—	28,458	55,958	37,059
Net pension liability	—	—	—	—	—	—	—	—	—	—	68,714	68,714	(12,998)
Deferred outflows of resources related to pension	—	—	—	—	—	—	—	—	—	—	(45,575)	(45,575)	(11,773)
Deferred inflows of resources related to pension	—	—	—	—	—	—	—	—	—	—	(12,722)	(12,722)	26,376
Pollution remediation liability	—	—	—	—	(450)	—	—	—	(450)	—	(1,111)	(1,561)	(1,232)
Net cash provided by (used in) operating activities	\$ 1,153,072	—	(6,337)	(14,476)	(38,969)	—	—	—	1,093,290	(165)	—	1,093,125	1,055,302

See accompanying independent auditors' report.

**Schedule 6**

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Net Revenue Requirement

Years ended December 31, 2015 and 2014

(In thousands)

	<b>2015</b>	<b>2014</b>
Test 1:		
Total operating revenues	\$ 1,631,492	1,549,216
Build America Bonds subsidy	75,908	75,745
Total investment income	13,972	15,119
Less earnings on construction investments	(2,290)	(2,578)
Less fair market value adjustments	(416)	(1,351)
Arts center	3,632	3,530
Total pledged revenues	1,722,298	1,639,681
Less revenue operating expenses	(503,453)	(472,772)
Net revenue available for debt service	1,218,845	1,166,909
Less net revenue requirements:		
Interest expense – debt service	(519,311)	(444,691)
Principal payment – debt service	(142,115)	(164,205)
Revenue transfer to charges	(535)	(1,150)
Revenue transfer to maintenance reserve	(87,058)	(74,814)
Revenue transfer to special project reserve	(50,301)	(28,800)
Excess net revenues	\$ 419,525	453,249
Test 2:		
Total operating revenues	\$ 1,631,492	1,549,216
Build America Bonds subsidy	75,908	75,745
Total investment income	13,972	15,119
Less earnings on construction investments	(2,290)	(2,578)
Less fair market value adjustments	(416)	(1,351)
Arts Center	3,632	3,530
Total pledged revenues	1,722,298	1,639,681
Less revenue operating expenses	(503,453)	(472,772)
Net revenue available for debt service	1,218,845	1,166,909
Less 1.2 times aggregate debt service	(793,711)	(730,675)
Excess net revenues	\$ 425,134	436,234
Debt service coverage ratio	1.84	1.92

See accompanying independent auditors' report.

## Schedule 7A

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

## Schedule of Investments

December 31, 2015

(In thousands)

	<b>Interest rate</b>	<b>Maturity</b>	<b>Par value</b>	<b>Carrying value</b>
Revenue:				
Certificate of deposit	0.73%–0.73%	6/22/16–6/22/16	\$ 50,000	50,194
Commercial paper	0.18–0.58	1/5/16–2/19/16	159,837	159,822
Federal agency notes	0.04–2.13	1/5/16–6/10/16	48,115	48,258
			<u>257,952</u>	<u>258,274</u>
Construction:				
Certificate of deposit	0.32%–0.69%	2/16/16–8/3/16	200,000	200,149
Commercial paper	0.43–0.52	4/4/16–7/12/16	200,000	199,610
Federal agency notes	0.08–0.34	1/6/16–9/12/16	419,300	418,974
U.S. Treasury bill	0.30–0.30	8/18/16–8/18/16	25,000	24,952
			<u>844,300</u>	<u>843,685</u>
Maintenance reserve:				
Commercial paper	0.08%–0.42%	1/5/16–2/9/16	8,288	8,286
Federal agency notes	0.10–0.31	1/12/16–2/5/16	14,000	13,998
U.S. Treasury bill	0.10–0.10	2/11/16–2/11/16	2,000	2,000
			<u>24,288</u>	<u>24,284</u>
Special project reserve:				
Commercial paper	0.25%–0.70%	1/5/16–2/12/16	48,400	48,389
Federal agency notes	0.10–0.21	1/8/16–1/22/16	6,000	6,000
			<u>54,400</u>	<u>54,389</u>
General reserve:				
Commercial paper	0.33%–0.45%	1/5/16–3/30/16	46,000	45,967
Federal agency notes	0.11–0.32	1/20/16–3/30/16	208,288	208,219
			<u>254,288</u>	<u>254,186</u>
Debt service:				
Commercial paper	0.27%–0.28%	1/4/16–1/4/16	73,734	73,732
Federal agency notes	0.03–0.21	1/4/16–1/4/16	265,009	265,007
			<u>338,743</u>	<u>338,739</u>
Debt reserve:				
Certificate of deposit	1.11%–2.00%	11/10/17 – 12/15/20	334,754	335,361
Commercial paper	1.44–1.44	1/4/16 – 1/4/16	151,080	151,063
Federal agency notes	1.05–1.05	4/25/18 – 4/25/18	104,919	104,359
			<u>590,753</u>	<u>590,783</u>
Total			\$ <u>2,364,724</u>	<u>2,364,340</u>

Above is the detail of investments listed on the Schedule of Net Position – Reconciliation of Bond Resolution to GAAP (Schedule 3) for Total Bond Resolution.

See accompanying independent auditors' report.

## Schedule 7B

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

## Schedule of Investments

December 31, 2014

(In thousands)

	<b>Interest rate</b>	<b>Maturity</b>	<b>Par value</b>	<b>Carrying value</b>
Revenue:				
Commercial paper	0.05%–0.20%	1/7/15–3/23/15	\$ 168,320	168,312
Federal agency notes	0.13–0.13	6/26/15–6/26/15	750	750
Repurchase agreement	0.01–0.01	1/2/15–1/2/15	7,000	7,000
			<u>176,070</u>	<u>176,062</u>
Construction:				
Certificate of deposit	0.20%–0.80%	1/5/15–8/12/15	275,217	275,904
Commercial paper	0.15–0.70	1/5/15–8/26/15	304,379	303,779
Federal agency notes	0.02–0.13	1/2/15–6/1/15	196,674	196,624
Municipal	5.00–5.00	3/1/15–8/1/15	68,035	70,417
U.S. Treasury bill	0.00–0.01	1/2/15–1/2/15	93	93
			<u>844,398</u>	<u>846,817</u>
Maintenance reserve:				
Commercial paper	0.08%–0.13%	1/2/15–1/30/15	26,000	25,999
Federal agency notes	0.01–0.01	1/16/15–1/16/15	2,000	2,000
			<u>28,000</u>	<u>27,999</u>
Special project reserve:				
Commercial paper	0.05%–0.12%	1/2/15–2/17/15	30,500	30,498
Federal agency notes	0.06–0.06	2/10/15–2/10/15	2,000	2,000
			<u>32,500</u>	<u>32,498</u>
General reserve:				
Commercial paper	0.11%–0.65%	1/16/15–5/29/15	262,631	262,496
U.S. Treasury bill	0.09–0.09	4/30/15–4/30/15	3,615	3,614
			<u>266,246</u>	<u>266,110</u>
Charges:				
Federal agency notes	0.02%–0.02%	1/2/15–1/2/15	13	13
U.S. Treasury bill	0.01–0.01	1/2/15–1/2/15	12	12
			<u>25</u>	<u>25</u>
Debt service:				
Commercial paper	0.13%–0.20%	1/2/15–1/2/15	64,133	64,133
Federal agency notes	0.01–0.05	1/2/15–1/2/15	281,316	281,316
U.S. Treasury bill	0.01–0.01	1/2/15–1/2/15	73,488	73,488
			<u>418,937</u>	<u>418,937</u>
Debt reserve:				
Certificate of deposit	1.11%–2.70%	1/13/15–7/17/19	307,911	310,626
Commercial paper	1.38–1.38	1/2/15–1/2/15	75,000	74,997
Federal agency notes	1.05–1.05	4/25/18–4/25/18	180,909	179,589
			<u>563,820</u>	<u>565,212</u>
Total			<u>\$ 2,329,996</u>	<u>2,333,660</u>

Above is the detail of investments listed on the Schedule of Net Position – Reconciliation of Bond Resolution to GAAP (Schedule 3) for Total Bond Resolution.

See accompanying independent auditors' report.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Depositories  
December 31, 2015 and 2014  
(In thousands)

	2015			2014		
	Book balance	Bank balance	Market value of securities pledged to secure deposits	Book balance	Bank balance	Market value of securities pledged to secure deposits
JP Morgan Chase:						
Revenue	\$ 118,659	109,237	—	168,310	156,798	—
Construction	91,784	92,741	—	85,544	88,639	—
Maintenance reserve	5,543	5,645	—	2,785	2,785	—
	<u>215,986</u>	<u>207,623</u>	<u>250,160</u>	<u>256,639</u>	<u>248,222</u>	<u>350,538</u>
Bank of America:						
Revenue	33,714	34,484	—	8,365	11,055	—
	<u>33,714</u>	<u>34,484</u>	<u>77,277</u>	<u>8,365</u>	<u>11,055</u>	<u>30,279</u>
Wells Fargo:						
Revenue	10,078	8,033	—	7,491	5,776	—
Special project reserve	2,682	3,355	—	2,491	2,551	—
General reserve	2,901	2,901	—	10,606	10,614	—
	<u>15,661</u>	<u>14,289</u>	<u>17,142</u>	<u>20,588</u>	<u>18,941</u>	<u>30,187</u>
Bank of New York Mellon:						
Revenue	728	242	—	916	192	—
	<u>728</u>	<u>242</u>	<u>641</u> (1)	<u>916</u>	<u>192</u>	<u>830</u> (1)
TD Bank, NA:						
Revenue	250	485	—	251	295	—
	<u>250</u>	<u>485</u>	<u>999</u>	<u>251</u>	<u>295</u>	<u>1,501</u>
Total Subject to Pledged Securities	<u>266,339</u>	<u>257,123</u>	<u>\$ 346,219</u>	<u>286,759</u>	<u>278,705</u>	<u>413,335</u>
Bank of New York Mellon – Trust:						
Construction:	5,481	5,481		179	179	
General reserve	244	244		4	4	
Charges	83	83		104	104	
Debt service	63,883	64,369		1,448	2,172	
	<u>69,691</u>	<u>70,177</u> (2)		<u>1,735</u>	<u>2,459</u> (2)	
U.S. Bank:						
Debt reserve	—	—		1	1	
	<u>—</u>	<u>—</u>		<u>1</u>	<u>1</u>	
Toll collection and other imprest funds:						
Revenue	351	—		338	—	
	<u>351</u>	<u>—</u> (3)		<u>338</u> (3)	<u>—</u>	
Total subject to bond resolution	<u>336,381</u>	<u>327,300</u>		<u>288,833</u>	<u>281,165</u>	
TD Bank, NA:						
Garden State Arts Center Foundation	76	87		632	660	
	<u>76</u>	<u>87</u>		<u>632</u>	<u>660</u>	
Investors Bank:						
Garden State Arts Center Foundation	451	451		—	—	
	<u>451</u>	<u>451</u>		<u>—</u>	<u>—</u>	
Northfield Bank:						
Garden State Arts Center Foundation	212	212		267	267	
	<u>212</u>	<u>212</u>		<u>267</u>	<u>267</u>	
	<u>\$ 337,120</u>	<u>328,050</u>		<u>289,732</u>	<u>282,092</u>	

(1) Also covered by FDIC insurance of \$250.

(2) Funds held by Trustee are not subject to collateral requirements, under the Bond Resolution.

(3) Cash on hand, not at bank.

See accompanying independent auditors' report.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Cost of Investment in Facilities

December 31, 2015

(With summarized comparative financial information for the year ended December 31, 2014)

(In thousands)

	<b>Completed construction funds</b>	<b>2008/2009 Bond anticipation note</b>	<b>Ten year capital program</b>	<b>Maintenance reserve</b>	<b>Special project reserve</b>	<b>General reserve</b>	<b>GAAP Adjustments</b>	<b>2015 Total</b>	<b>2014 Total</b>
Land	\$ 658,189	2,411	155,951	—	118	8,128	—	824,797	797,313
Buildings and sound barriers	440,295	20,373	101,843	—	19,729	32,587	—	614,827	606,910
Road surface	455,186	66,666	681,544	155,139	1,786	12,355	—	1,372,676	1,344,283
Road bed	2,509,073	68,636	515,413	—	57	1,946	—	3,095,125	3,095,125
Bridges	1,877,991	32,866	2,110,213	244,454	64	32,178	—	4,297,766	4,251,077
Equipment	526,687	51,142	468,773	—	94,616	97,438	—	1,238,656	1,203,633
Construction-in-progress	—	—	2,465,961	5,712	2,619	17,716	29,398	2,521,406	1,582,797
Cost of investment in facilities	6,467,421	242,094	6,499,698	405,305	118,989	202,348	29,398	13,965,253	12,881,138
Accumulated depreciation	(2,680,005)	(53,822)	(261,764)	(66,074)	(44,274)	(58,223)	—	(3,164,162)	(2,847,785)
Capital assets, net of accumulated depreciation	<u>\$ 3,787,416</u>	<u>188,272</u>	<u>6,237,934</u>	<u>339,231</u>	<u>74,715</u>	<u>144,125</u>	<u>29,398</u>	<u>10,801,091</u>	<u>10,033,353</u>
Completed construction funds:									
Original turnpike extensions and additional lanes	\$ 61,635								
Revenues invested in facilities	40,536								
1966 Turnpike Improvement	163,651								
1971 Turnpike Improvement	18,494								
1973 Improvement and Funding Program	27,590								
1985-1990 Widening Project	325,756								
Business Plan for the 90's	770,472								
Former NJHA Construction	533,559								
2000 Construction Fund	1,325,356								
2003 Construction Fund	16,296								
2004 Construction Fund	423,064								
2005 Construction Fund	81,007								
	<u>\$ 3,787,416</u>								

See accompanying independent auditors' report.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Bond Indebtedness

December 31, 2015

(In thousands)

	Amount outstanding December 31, 2014	Refunded or acquired and canceled in current year	Mandatory redemption/ sinking fund installments	Debt issuance	Accretion of capital appreciation bonds	Amortization of premiums and discounts	Amount outstanding December 31, 2015
Turnpike revenue bonds:							
Series 1991C	\$ 67,160	—	—	—	—	—	67,160
Series 2000B-G	400,000	—	—	—	—	—	400,000
Series 2003B	234,210	—	(164,205)	—	—	—	70,005
Series 2004B	164,411	—	—	—	4,235	—	168,646
Series 2004C-2	132,850	—	—	—	—	—	132,850
Series 2005A	173,650	—	—	—	—	—	173,650
Series 2005B	32,500	—	—	—	—	—	32,500
Series 2005D1-D4	208,735	—	—	—	—	—	208,735
Series 2009A	92,500	(92,500)	—	—	—	—	—
Series 2009B	50,000	(50,000)	—	—	—	—	—
Series 2009E	300,000	—	—	—	—	—	300,000
Series 2009F	1,375,000	—	—	—	—	—	1,375,000
Series 2009G	34,770	—	—	—	—	—	34,770
Series 2009H	306,170	—	—	—	—	—	306,170
Series 2009I	178,005	—	—	—	—	—	178,005
Series 2010A	1,850,000	—	—	—	—	—	1,850,000
Series 2012A	141,255	—	—	—	—	—	141,255
Series 2012B	804,435	—	—	—	—	—	804,435
Series 2012G	43,750	(43,750)	—	—	—	—	—
Series 2013A	1,400,000	—	—	—	—	—	1,400,000
Series 2013B	100,000	—	—	—	—	—	100,000
Series 2013C	271,000	—	—	—	—	—	271,000
Series 2013D	225,000	(72,350)	—	—	—	—	152,650
Series 2013E	150,000	(48,235)	—	—	—	—	101,765
Series 2013F	90,880	—	—	—	—	—	90,880
Series 2013G	43,750	(43,750)	—	—	—	—	—
Series 2014 A	1,000,000	—	—	—	—	—	1,000,000
Series 2014 B-1	25,000	(25,000)	—	—	—	—	—
Series 2014 B-2	50,000	—	—	—	—	—	50,000
Series 2014 B-3	50,000	—	—	—	—	—	50,000
Series 2014 C	201,860	—	—	—	—	—	201,860
Series 2015 A	—	—	—	92,500	—	—	92,500
Series 2015 B	—	—	—	50,000	—	—	50,000
Series 2015 C	—	—	—	43,750	—	—	43,750
Series 2015 D	—	—	—	43,750	—	—	43,750
Series 2015 E	—	—	—	750,000	—	—	750,000
Series 2015F	—	—	—	72,350	—	—	72,350
Series 2015G	—	—	—	25,000	—	—	25,000
Series 2015H	—	—	—	48,235	—	—	48,235
	10,196,891	(375,585)	(164,205)	1,125,585	4,235	—	10,786,921
Premiums and discounts, net	428,080	—	—	76,111	—	(39,949)	464,242
	<u>\$ 10,624,971</u>	<u>(375,585)</u>	<u>(164,205)</u>	<u>1,201,696</u>	<u>4,235</u>	<u>(39,949)</u>	<u>11,251,163</u>

See accompanying independent auditors' report.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

Schedule of Refunded Bond and Note Indebtedness

December 31, 2015

(With summarized comparative financial information as of December 31, 2014)

(In thousands)

Note:

As of December 31, 2015 and 2014, refunded bond and note indebtedness which is still outstanding in fully collateralized escrow accounts is as follows:

<b>Refunded series</b>	<b>Refunded amount</b>	<b>Matured/ redeemed</b>	<b>2015 outstanding</b>	<b>2014 outstanding</b>
Parkway revenue bonds:				
Series 1989, Serial bonds 5.75% Redemption January 1, 2018 through January 1, 2019	\$ 35,080	—	35,080	50,180
Series 2001, Serial bonds 5.00% to 5.50%, Redemption January 1, 2013 through January 1, 2016	243,080	(228,710)	14,370	35,080
Turnpike Revenue Bonds:				
Series 1991C, 4.80% to 6.50%, Escrowed until January 1, 2016	1,162,185	(1,067,245)	94,940	243,235
Series 2003B (Federally Taxable) 1.15% to 3.14%, Redemption January 1, 2015	32,000	(32,000)	—	32,000
Series 2005C Turnpike Revenue Bonds, Redemption January 1, 2015	95,880	(95,880)	—	95,880
Series 2005A Turnpike Revenue Bonds, Redemption January 1, 2015	235,530	(235,530)	—	235,530
Total	<u>\$ 1,803,755</u>	<u>(1,659,365)</u>	<u>144,390</u>	<u>691,905</u>

See accompanying independent auditors' report.



**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

**NEW JERSEY TURNPIKE**

Schedule of Toll Revenue

Years ended December 31, 2015 and 2014

(Unaudited)

(In thousands)

Class	Description	2015		2014	
		Toll revenue	Number of vehicles	Toll revenue	Number of vehicles
1	Passenger car, motorcycle, taxi or hearse, light truck	\$ 756,561	215,358	704,436	202,347
2	Vehicles having two axles other than type described under Class 1	61,429	8,233	58,764	7,946
3	Vehicle (vehicles), single or in combination, having three axles	27,479	3,374	25,474	3,162
4	Vehicle (vehicles), single or in combination, having four axles	33,465	2,679	30,384	2,492
5	Vehicle (vehicles), single or in combination, having five axles	227,615	14,909	215,957	14,274
6	Vehicle (vehicles), single or in combination, having six or more axles	6,392	335	5,864	316
7	Buses having two axles	2,156	413	2,069	405
8	Buses having three axles	13,849	1,296	13,723	1,300
	Nonrevenue vehicles	—	1,558	—	1,517
		1,128,946	248,155	1,056,671	233,759
	Nonrevenue vehicles	—	(1,558)	—	(1,517)
	Toll adjustments and discounts	(5,106)	—	(4,001)	—
	Net violations	(17,572)	—	(14,926)	—
		<u>\$ 1,106,268</u>	<u>246,597</u>	<u>1,037,744</u>	<u>232,242</u>

See accompanying independent auditors' report.

**NEW JERSEY TURNPIKE AUTHORITY**  
(A Component Unit of the State of New Jersey)

**GARDEN STATE PARKWAY**

Schedule of Toll Revenue

Years ended December 31, 2015 and 2014

(Unaudited)

(In thousands)

Class	Description	2015		2014	
		Toll revenue	Number of vehicles	Toll revenue	Number of vehicles
1	Passenger car, motorcycle, taxi or hearse, light truck	\$ 407,254	374,092	398,210	365,337
2	Vehicles having two axles other than type described under Class 1	2,674	1,124	2,472	1,081
3	Vehicle (vehicles), single or in combination, having three axles	3,476	1,142	3,199	1,046
4	Vehicle (vehicles), single or in combination, having four axles	3,511	815	3,266	772
5	Vehicle (vehicles), single or in combination, having five axles	2,584	532	2,496	520
6	Vehicle (vehicles), single or in combination, having six or more axles	138	25	140	25
7	Buses having two axles	1,589	605	1,521	570
8	Buses having three axles	2,589	949	2,748	998
	Nonrevenue vehicles	—	1,476	—	1,497
		423,815	380,760	414,052	371,846
	Nonrevenue vehicles	—	(1,476)	—	(1,497)
	Toll adjustments and discounts	(474)	—	(393)	—
	Net violations	(6,476)	—	(5,655)	—
		\$ 416,865	379,284	408,004	370,349

See accompanying independent auditors' report.

## **APPENDIX B**

**2017 DRAW DOWN LETTER,  
2015 DRAW DOWN LETTER AND  
REPORT OF TRAFFIC ENGINEER**

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195 Church Street, Suite 7A  
New Haven, CT 06510  
tel: 203 865-2191  
fax: 203 624-0484

March 8, 2017

Ms. Donna Manuelli  
Chief Financial Officer  
New Jersey Turnpike Authority  
P.O. Box 5042  
Woodbridge, NJ 07095

Subject: 2017 New Jersey Turnpike System Draw Down Letter

Dear Ms. Manuelli:

CDM Smith was recently requested to provide updated traffic and toll revenue forecasts for both the New Jersey Turnpike and the Garden State Parkway to the New Jersey Turnpike Authority (NJTA). CDM Smith developed and submitted the New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study (the 2014 Forecast Study) on May 1, 2014, which was a formal investment grade study to be used in support of future revenue bond issuances. The most recent forecast presented to NJTA in October 2015 (2015 Draw Down Letter) provided a forecast of annual transactions and toll revenue through calendar year 2024.

This 2017 Draw Down Letter provides revised short-term transaction and toll revenue forecasts through 2018, based on actual transaction and toll revenue experience and on recent trends and forecasts in motor fuel prices and gross domestic product. Forecasted growth rates beyond 2018 are unchanged from those in our prior report. An additional sixteen months of actual transaction and toll revenue experience was available for the 2017 Draw Down Letter (from September 2015 through December 2016). It is our understanding that the purpose of this 2017 Draw Down Letter is to provide NJTA with a revised set of forecasts for use in support of an upcoming bond transaction(s).

## **Monthly Transaction and Toll Revenue Trends**

### ***New Jersey Turnpike***

Monthly transaction trends for the New Jersey Turnpike from January 2011 through December 2016 are shown in Table 1. Several events had noticeable impacts on Turnpike transactions in recent years. A 53 percent toll increase took effect in January 2012, which negatively impacted transactions. Hurricanes in 2011 and 2012 also negatively impacted Turnpike transactions. Significant winter weather events in February 2013 and the first quarter of 2014 reduced transactions below their normal levels. Closure of one direction of the Pulaski Skyway added transactions to the Turnpike beginning April 2014.



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**Table 1**  
**Historical Toll Transaction Trends By Month**  
**New Jersey Turnpike**  
**(Thousands of Vehicles)**

Passenger Car Transactions											
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change	2016
January	14,550 (2)	2.6	14,935 (5)	(0.5)	14,855	(4.4)	14,202 (2)	4.9	14,894 (2,9)	6.4	15,850 (9)
February	14,454 (2)	1.3	14,649 (1)	(8.4)	13,414 (2)	(4.3)	12,832 (2)	12.0	14,371 (2,9)	12.2	16,127 (1,9)
March	17,114	(4.5)	16,337	(1.9)	16,022	0.6	16,119 (8)	5.4	16,990 (2,9)	8.3	18,402 (9)
April	17,153	(4.8)	16,323	(0.7)	16,210	4.9	17,008 (9)	6.5	18,108 (9)	1.8	18,426 (9)
May	17,798	(3.6)	17,164	(0.3)	17,109	6.0	18,136 (9)	5.2	19,072 (9)	1.6	19,378 (9)
June	17,919	(4.3)	17,143	(1.6)	16,874	7.0	18,053 (9)	4.4	18,856 (9)	4.3	19,662 (9)
July	18,317 (3)	(6.2)	17,182	1.3	17,409	4.8	18,251 (9)	7.9	19,696 (9)	1.2	19,925 (9)
August	17,711 (4)	0.1	17,734	2.4	18,151	2.5	18,608 (9)	6.1	19,748 (9)	2.6	20,270 (9)
September	17,206	(7.0)	16,003	2.3	16,369	5.0	17,183 (9)	5.6	18,144 (9)	3.9	18,853 (9)
October	17,475	(10.7)	15,609 (6)	10.0	17,172	4.5	17,950 (9)	5.9	19,003 (9)	2.1	19,411 (9)
November	16,904	(8.1)	15,538	2.2	15,887	5.3	16,736 (9)	7.9	18,061 (9)	3.2	18,634 (9)
December	17,026	(6.7)	15,891	(1.0)	15,736	9.7	17,270 (9)	6.6	18,415 (9)	1.5	18,696 (9)
TOTAL	203,627	(4.5)	194,508	0.4	195,208	3.7	202,348	6.4	215,358	3.8	223,634

Commercial Vehicle Transactions (7)											
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change	2016
January	2,239 (2)	(0.0)	2,238 (5)	7.9	2,415	(4.0)	2,318 (2)	(0.9)	2,296 (2)	0.8	2,315
February	2,169 (2)	0.6	2,181 (1)	(1.5)	2,148 (2)	(4.2)	2,057 (2)	7.7	2,216 (2)	8.6	2,406 (1)
March	2,581	(6.5)	2,412	(1.7)	2,371	3.7	2,458 (8)	5.5	2,593 (2)	5.6	2,737
April	2,396	(4.4)	2,341	6.5	2,492	1.8	2,536	4.2	2,642	(2.2)	2,584
May	2,519	(0.4)	2,509	2.3	2,567	0.7	2,586	2.1	2,641	1.3	2,675
June	2,742	(10.5)	2,453	(3.0)	2,379	8.4	2,578	8.3	2,793	0.6	2,809
July	2,427	1.4	2,462	3.7	2,554	3.5	2,644	5.5	2,789	(4.6)	2,660
August	2,620 (4)	(2.2)	2,562	1.2	2,593	(2.7)	2,522	5.2	2,654	9.0	2,893
September	2,521	(9.6)	2,279	6.6	2,430	6.0	2,577	4.1	2,682	0.9	2,706
October	2,529	(6.6)	2,363 (6)	13.8	2,688	1.9	2,739	2.0	2,793	(1.9)	2,741
November	2,453	3.3	2,534	(8.9)	2,308	1.9	2,351	8.0	2,538	4.7	2,658
December	2,405	(4.4)	2,299	1.5	2,333	8.4	2,530	2.8	2,601	2.9	2,676
TOTAL	29,601	(3.3)	28,633	2.3	29,278	2.1	29,896	4.5	31,238	2.0	31,860

Total Transactions											
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change	2016
January	16,789 (2)	2.3	17,173 (5)	0.6	17,270	(4.3)	16,520 (2)	4.1	17,190 (2,9)	5.7	18,165 (9)
February	16,623 (2)	1.2	16,830 (1)	(7.5)	15,562 (2)	(4.3)	14,889 (2)	11.4	16,587 (2,9)	11.7	18,533 (1,9)
March	19,695	(4.8)	18,749	(1.9)	18,393	1.0	18,577 (8)	5.4	19,583 (2,9)	7.9	21,139 (9)
April	19,549	(4.5)	18,664	0.2	18,702	4.5	19,544 (9)	6.2	20,750 (9)	1.3	21,010 (9)
May	20,317	(3.2)	19,673	0.0	19,676	5.3	20,722 (9)	4.8	21,713 (9)	1.6	22,053 (9)
June	20,661	(5.2)	19,596	(1.8)	19,253	7.2	20,631 (9)	4.9	21,649 (9)	3.8	22,471 (9)
July	20,744 (3)	(5.3)	19,644	1.6	19,963	4.7	20,895 (9)	7.6	22,485 (9)	0.4	22,585 (9)
August	20,331 (4)	(0.2)	20,296	2.2	20,744	1.9	21,130 (9)	6.0	22,402 (9)	3.4	23,163 (9)
September	19,727	(7.3)	18,282	2.8	18,799	5.1	19,760 (9)	5.4	20,826 (9)	3.5	21,559 (9)
October	20,004	(10.2)	17,972 (6)	10.5	19,860	4.2	20,689 (9)	5.4	21,796 (9)	1.6	22,152 (9)
November	19,357	(6.6)	18,072	0.7	18,195	4.9	19,087 (9)	7.9	20,599 (9)	3.4	21,292 (9)
December	19,431	(6.4)	18,190	(0.7)	18,069	9.7	19,800 (9)	6.1	21,016 (9)	1.7	21,372 (9)
TOTAL	233,228	(4.3)	223,141	0.6	224,486	3.5	232,244	6.2	246,596	3.6	255,494

(1) Leap year - February had 29 days.

(2) Severe winter weather events.

(3) On July 1, 2011, the off-peak discount for passenger cars with non-NJ E-ZPass was eliminated, increasing the rates by 33%.

(4) Hurricane Irene.

(5) A 53% toll increase was implemented on January 1, 2012.

(6) Superstorm Sandy, October 29-30, 2012

(7) Consists of Classes 2 through B3.

(8) Abnormally cold weather.

(9) Construction on the Pulaski Skyway positively impacted passenger car traffic on the Turnpike.

Source: NJTA

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In 2015, passenger car transactions increased 6.4 percent and commercial vehicle transactions increased by 4.5 percent compared to 2014 due to the continued positive impacts of construction on the Pulaski Skyway and the effects of extreme weather that negatively impacted 2014 passenger car transactions.

Passenger car transaction growth has been positive in every month of 2016, through the most recent actual data (December). Growth has ranged from a low of 1.2 percent in July to a high of 12.2 percent in February. February growth was particularly high due to the extra leap year day in February 2016. Both January and March also exhibited relatively high passenger car growth (6.4 and 8.3 percent, respectively) due to severe weather during those same months in 2015. Historically low gas prices in the first quarter of 2016 also contributed to higher traffic levels. Total year-to-date passenger car transaction growth has been 3.8 percent in 2016 compared to the same period in 2015.

Commercial monthly transaction trends in 2016 were more varied than those for passenger cars. This is largely due to the fact that commercial vehicle monthly activity is highly correlated to the number of weekdays in the month compared to the same month in the prior year. The day on which a holiday falls can also impact monthly transaction totals for commercial vehicles. Though January 2016 exhibited rather high growth for passenger cars (6.4 percent), it was only 0.8 percent higher for commercial vehicles; likely because January 2016 had one less weekday. Due to the extra leap day in February 2016, growth was 8.6 percent compared to February 2015. July 2016 exhibited the lowest commercial growth at -4.6 percent. This was likely due to the fact that July 4<sup>th</sup> occurred on a Sunday (the lowest volume day for commercial vehicles) in 2015, but on a Monday in 2016. August 2016 commercial transactions grew by 9.0 percent, likely due to two more weekdays in August 2016 compared to August 2015. Commercial transactions in November 2016 increased by 4.7 percent, growth was likely aided by an additional weekday in November 2016 compared to November 2015. December 2016 commercial vehicle transactions increased by 2.9 percent over December 2015. Total commercial vehicle transaction growth has been 2.0 percent in 2016 compared to 2015.

The high volume of passenger car transactions compared to commercial vehicle transactions results in total vehicle transaction trends closely mirroring those for passenger cars. As shown in Table 1, total Turnpike transaction growth was 3.6 percent compared to 2015.

Table 2 presents recent historical monthly trends in gross toll revenue on the Turnpike from January 2011 through December 2016. For the most part, toll revenue trends mirror toll transaction trends, except in year 2012, when the 53 percent toll increase was implemented in January. The toll increase contributed to the 4.3 percent decrease in total transactions, but resulted in a toll revenue increase of 47.4 percent. In 2013, passenger car toll revenue increased by 0.7 percent and commercial vehicle toll revenue increased by 3.0 percent over 2012 levels. As previously mentioned, 2012 was a leap year so February 2012 included an extra day of toll revenue



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**Table 2**  
**Historical Gross Toll Revenue Trends By Month**  
**New Jersey Turnpike**  
**(Thousands of Dollars)**

Passenger Car Toll Revenue											
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change	2016
January	\$30,466 (2)	62.8	\$49,592 (5)	(0.7)	\$49,246	(4.9)	\$46,857 (2)	5.9	\$49,627 (2,9)	6.9	\$53,075 (9)
February	30,104 (2)	61.1	48,486 (1)	(9.0)	44,132 (2)	(4.5)	42,128 (2)	11.6	46,995 (2,9)	14.1	53,615 (1,9)
March	35,424	53.8	54,497	0.9	54,997	(1.7)	54,042 (8)	4.7	56,593 (2,9)	10.5	62,543 (9)
April	37,125	51.9	56,384 (2.2)	55,132	6.1	58,468 (9)	7.1	62,592 (9)	2.1	63,923 (9)	
May	38,384	54.1	59,139	0.4	59,351	5.3	62,514 (9)	7.4	67,110 (9)	1.4	68,030 (9)
June	38,518	55.1	59,755 (0.7)	59,327	5.2	62,389 (9)	4.7	65,346 (9)	5.1	68,664 (9)	
July	43,075 (3)	43.7	61,901	0.6	62,242	3.7	64,569 (9)	10.0	71,042 (9)	3.1	73,258 (9)
August	40,846 (4)	55.8	63,656	2.8	65,468	3.7	67,897 (9)	6.7	72,439 (9)	1.2	73,343 (9)
September	38,220	43.9	55,002	1.8	55,977	4.0	58,214 (9)	7.0	62,285 (9)	4.0	64,768 (9)
October	38,997	33.2	51,928 (6)	10.7	57,502	5.0	60,366 (9)	7.0	64,572 (9)	3.0	66,531 (9)
November	37,929	35.8	51,526	6.4	54,808	6.4	58,294 (9)	7.7	62,788 (9)	2.4	64,293 (9)
December	38,346	46.4	56,121 (2.6)	54,646	8.7	59,390 (9)	7.1	63,619 (9)	1.1	64,294 (9)	
TOTAL	\$447,434	49.3	\$667,987	0.7	\$672,828	3.3	\$695,128	7.2	\$745,008	4.2	\$776,337

Commercial Vehicle Toll Revenue (7)											
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change	2016
January	\$17,302 (2)	46.9	\$25,415 (5)	4.9	\$26,662	(1.7)	\$26,216 (2)	1.2	\$26,519 (2)	0.6	\$26,687
February	16,630 (2)	49.0	24,783 (1)	(1.6)	24,384 (2)	(4.7)	23,232 (2)	10.3	25,619 (2)	8.1	27,691 (1)
March	19,656	36.9	26,917	0.3	26,989	3.6	27,952 (8)	5.5	29,502 (2)	7.5	31,726
April	18,683	34.4	25,103	16.2	29,159	(0.5)	29,012	6.2	30,799 (3.0)	29,862	
May	19,574	46.5	28,679	2.0	29,243	0.4	29,352	6.1	31,136	1.2	31,502
June	20,085	44.0	28,919 (6.6)	26,996	7.8	29,112	9.9	31,994	1.3	32,415	
July	18,179	58.4	28,790 (0.5)	28,641	2.7	29,417	8.9	32,035 (3.6)	30,870		
August	19,812 (4)	49.6	29,641 (0.9)	29,367 (3.9)	28,208	8.7	30,650	7.6	32,980		
September	19,332	33.9	25,892	9.4	28,313	6.2	30,068	2.4	30,789	0.7	30,990
October	19,803	31.4	26,019 (6)	16.8	30,403	8.1	32,867 (1.9)	32,253 (1.3)	31,821		
November	18,695	47.4	27,555 (1.4)	27,164	3.3	28,062	5.5	29,617	4.6	30,981	
December	17,965	46.5	26,320	1.0	26,571	9.6	29,117	4.2	30,346	1.2	30,695
TOTAL	\$225,716	43.6	\$324,033	3.0	\$333,892	2.6	\$342,615	5.4	\$361,259	1.9	\$368,220

Total Toll Revenue											
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change	2016
January	\$47,768 (2)	57.0	\$75,007 (5)	1.2	\$75,908	(3.7)	\$73,073 (2)	4.2	\$76,146 (2,9)	4.7	\$79,762 (9)
February	46,734 (2)	56.8	73,269 (1)	(6.5)	68,516 (2)	(4.6)	65,360 (2)	11.1	72,614 (2,9)	12.0	81,306 (1,9)
March	55,080	47.8	81,414	0.7	81,986	0.0	81,994 (8)	5.0	86,095 (2,9)	9.5	94,269 (9)
April	55,808	46.0	81,487	3.4	84,291	3.8	87,480 (9)	6.8	93,391 (9)	0.4	93,785 (9)
May	57,958	51.5	87,818	0.9	88,594	3.7	91,866 (9)	6.9	98,246 (9)	1.3	99,532 (9)
June	58,603	51.3	88,674 (2.7)	86,323	6.0	91,501 (9)	6.4	97,340 (9)	3.8	101,079 (9)	
July	61,254 (3)	48.1	90,691	0.2	90,883	3.4	93,986 (9)	9.7	103,077 (9)	1.0	104,128 (9)
August	60,658 (4)	53.8	93,297	1.6	94,835	1.3	96,105 (9)	7.3	103,089 (9)	3.1	106,323 (9)
September	57,552	40.6	80,894	4.2	84,290	4.7	88,282 (9)	5.4	93,074 (9)	2.9	95,758 (9)
October	58,800	32.6	77,947 (6)	12.8	87,905	6.1	93,233 (9)	3.9	96,825 (9)	1.6	98,352 (9)
November	56,624	39.7	79,081	3.7	81,972	5.3	86,356 (9)	7.0	92,405 (9)	3.1	95,274 (9)
December	56,311	46.4	82,441 (1.5)	81,217		88,507 (9)	6.2	93,965 (9)	1.1	94,989 (9)	
TOTAL	\$673,150	47.4	\$992,020	1.5	\$1,006,720	3.1	\$1,037,743	6.6	\$1,106,267	3.5	\$1,144,557

(1) Leap year - February had 29 days.

(2) Severe winter weather events.

(3) On July 1, 2011, the off-peak discount for passenger cars with non-NJ E-ZPass was eliminated, increasing the rates by 33%.

(4) Hurricane Irene.

(5) A 53% toll increase was implemented on January 1, 2012.

(6) Superstorm Sandy, October 29-30, 2012

(7) Consists of Classes 2 through B3.

(8) Abnormally cold weather.

(9) Construction on the Pulaski Skyway positively impacted passenger car traffic on the Turnpike.

Source: NJTA



collection compared to February 2013, which explains the slower growth. Also, winter storm Nemo negatively impacted weekend travel during the month of February 2013. In 2014, passenger car toll revenue increased by 3.3 and commercial vehicle toll revenue increased by 2.6 percent over 2013. The construction on the Pulaski Skyway began in April 2014, which had a positive impact on both transactions and toll revenue. 2015 passenger car toll revenue increased by 7.2 percent and commercial vehicle toll revenue increased by 5.4 percent compared to 2014. The significant increase in toll revenue can be partially attributed to the continued construction on the Pulaski Skyway, lower motor fuel prices and to the negative effects of extreme weather events which dampened 2014 toll revenue.

As with toll transactions, passenger car toll revenue growth has been positive in every month in 2016 compared to the same month in 2015. Growth has ranged from a low of 1.1 percent in December to a high of 14.1 percent in February. Total passenger car revenue growth has been 4.2 percent in 2016 compared to 2015.

As with commercial vehicle transactions, monthly revenue growth for commercial vehicles also varied considerably compared to those for passenger cars in 2016. As discussed above, this is largely due to differences in the number of weekdays versus weekend days in each month as well as what days holidays fall on. Total commercial vehicle revenue growth has been 1.9 percent in 2016 compared to 2015.

The relatively high proportion of total passenger car toll revenue, compared to commercial vehicle revenue, results in total vehicle revenue trends more closely mirroring those for passenger cars. As shown in Table 2, total Turnpike toll revenue growth was 3.5 percent compared to 2015.

### ***Garden State Parkway***

Monthly transaction trends for the Garden State Parkway from January 2011 to December 2016 are shown in Table 3. It should be noted that given the commercial vehicle restrictions on the Parkway north of interchange 105 and the resulting low volumes (less than 1.5 percent of total transactions), very small changes in commercial vehicle volumes have relatively big percent impacts. This is evident in the commercial vehicle transaction and revenue growth rates shown in Tables 3 and 4 for the Parkway.

Parkway transactions show similar patterns as the Turnpike regarding impacts due to the January 2012 toll increase, weather, Superstorm Sandy and the leap year. The toll rate increase on the Parkway was 50 percent (versus 53 percent on the Turnpike). Superstorm Sandy had a severe impact on the Parkway transactions beginning in October 2012. The significant increase in commercial vehicle transactions in 2013 can be partially attributed to truck usage on the facility during hurricane recovery and rebuilding efforts after Superstorm Sandy. As previously mentioned in the Turnpike section, significant winter weather events that occurred during the first part of

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**Table 3**  
**Historical Toll Transaction Trends By Month**  
**Garden State Parkway**  
**(Thousands of Vehicles)**

<b>Passenger Car Transactions</b>										
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change
January	26,113 (2)	2.9	26,862 (4)	1.9	27,372	(6.2)	25,676 (2,8)	0.6	25,831 (2)	4.9
February	26,209 (2)	1.6	26,617 (1)	(7.1)	24,733 (2)	(4.7)	23,563 (2)	4.5	24,629 (2)	12.0
March	30,602	(3.6)	29,498	(1.5)	29,064	(0.1)	29,022 (7)	(0.8)	28,779 (2)	8.5
April	30,367	(3.1)	29,412	1.0	29,719	1.2	30,073	1.5	30,531	1.5
May	32,746	(2.1)	32,053	(0.2)	31,979	2.1	32,642	1.6	33,180	0.4
June	33,847	(2.3)	33,083	(2.2)	32,355	3.0	33,336	0.1	33,376	4.5
July	36,542	(5.6)	34,505	0.3	34,601	1.8	35,228	3.4	36,442	0.5
August	34,059 (3)	3.6	35,285	0.4	35,439	1.2	35,878 (8)	2.7	36,838	0.8
September	31,852	(5.2)	30,182	1.9	30,764	1.1	31,100 (8)	4.1	32,374	0.8
October	31,090	(9.2)	28,223 (5)	10.3	31,126	0.1	31,155	1.9	31,751	1.0
November	29,573	(8.1)	27,181	5.6	28,710	(1.3)	28,339	4.9	29,722	2.3
December	30,057	(5.4)	28,432	(1.5)	28,002	4.7	29,326	4.5	30,640	0.0
TOTAL	373,057	(3.1)	361,333	0.7	363,864	0.4	365,338	2.4	374,093	2.8
<b>Commercial Vehicle Transactions (6)</b>										
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change
January	318 (2)	(0.3)	317 (4)	14.8	364	(4.9)	346 (2,8)	(6.6)	323 (2)	6.2
February	301 (2)	4.3	314 (1)	4.8	329 (2)	(1.2)	325 (2)	(0.9)	322 (2)	7.8
March	386	(2.8)	375	(2.1)	367	(1.4)	362 (7)	5.2	381 (2)	9.7
April	395	(1.3)	390	10.8	432	(4.2)	414	3.6	429	5.1
May	460	(1.7)	452	11.1	502	(4.4)	480	0.4	482	1.0
June	474	(6.1)	445	5.6	470	2.3	481	2.1	491	(2.6)
July	477	(1.0)	472	6.6	503	0.8	507	1.4	514	(10.7)
August	453 (3)	4.0	471	3.6	488	(2.3)	477 (8)	2.5	489	(4.9)
September	421	(5.0)	400	7.0	428	3.3	442 (8)	2.9	455	(7.7)
October	424	(7.8)	391 (5)	14.8	449	1.6	456	3.9	474	(11.6)
November	380	13.4	431	(12.3)	378	(3.2)	366	21.0	443	(14.2)
December	345	6.1	366	(6.0)	344	3.8	357	8.1	386	(7.8)
TOTAL	4,834	(0.2)	4,824	4.8	5,054	(0.8)	5,013	3.5	5,189	(3.2)
<b>Total Transactions</b>										
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change
January	26,431 (2)	2.8	27,179 (4)	2.0	27,736	(6.2)	26,022 (2,8)	0.5	26,154 (2)	4.9
February	26,510 (2)	1.6	26,931 (1)	(6.9)	25,062 (2)	(4.7)	23,888 (2)	4.4	24,951 (2)	12.0
March	30,988	(3.6)	29,873	(1.5)	29,431	(0.2)	29,384 (7)	(0.8)	29,160 (2)	8.5
April	30,762	(3.1)	29,802	1.2	30,151	1.1	30,487	1.6	30,960	1.6
May	33,206	(2.1)	32,505	(0.1)	32,481	2.0	33,122	1.6	33,662	0.4
June	34,321	(2.3)	33,528	(2.1)	32,825	3.0	33,817	0.1	33,867	4.4
July	37,019	(5.5)	34,977	0.4	35,104	1.8	35,735	3.4	36,956	0.3
August	34,512 (3)	3.6	35,756	0.5	35,927	1.2	36,355 (8)	2.7	37,327	0.7
September	32,273	(5.2)	30,582	2.0	31,192	1.1	31,542 (8)	4.1	32,829	0.7
October	31,514	(9.2)	28,614 (5)	10.3	31,575	0.1	31,611	1.9	32,225	0.8
November	29,953	(7.8)	27,612	5.3	29,088	(1.3)	28,705	5.1	30,165	2.1
December	30,402	(5.3)	28,798	(1.6)	28,346	4.7	29,683	4.5	31,026	(0.1)
TOTAL	377,891	(3.1)	366,157	0.8	368,918	0.4	370,351	2.4	379,282	2.7

(1) Leap year - February had 29 days.

(2) Severe winter weather events.

(3) Hurricane Irene.

(4) A 50% toll increase was implemented on January 1, 2012.

(5) Superstorm Sandy, October 29-30, 2012

(6) Consists of Classes 2 through B3. Heavy trucks, registered as 10,000 lbs or more (6 tires or 3-or-more-axes), are prohibited north of Interchange 105.

(7) Abnormally cold weather.

(8) Casino closures: Atlantic Club in January, Showboat in August, and Revel and Trump Plaza in September.

Source: NJTA

2014 suppressed transaction growth on the Parkway as well. Additionally, several casino closures in the Atlantic City area also negatively impacted transactions on the Parkway during 2014. In 2015, passenger car transactions increased by 2.4 percent and commercial vehicle transactions increased by 3.5 percent over 2014. Multiple severe winter weather events negatively impacted transaction growth on the facility during the months of January and February 2015.

Parkway 2016 monthly passenger car transaction growth shows the same patterns as those for the Turnpike. Monthly growth ranges from a high of 12.0 percent in February (due to the extra leap day) to no growth in December, likely due to one extra weekday in December 2015. As on the Turnpike, January and March also exhibited relatively high growth in 2016 (4.9 percent and 8.5 percent, respectively) due to recovery impacts from severe winter weather in January and March 2015 and historically low gas prices. Total passenger car transaction growth has been 2.8 percent in 2016 compared to the same period in 2015.

Commercial vehicle monthly growth in 2016 has been quite variable. As mentioned above, the very low volume of commercial vehicles results in relatively small changes (either positive or negative) in usage having large percent impacts on growth. As shown in Table 3, monthly growth ranged from a high of 9.7 percent in March to -14.2 percent in November. Total commercial vehicle transactions decreased by 3.2 percent in 2016 compared to the same period in 2015.

Total transaction trends closely mirror passenger car transactions because passenger cars account for such a large share of the transaction totals. As shown in Table 3, total 2016 Parkway transaction growth was 2.7 percent compared to 2015.

Table 4 presents historical monthly trends in gross toll revenue on the Parkway from January 2011 through December 2016. Toll revenue trends generally mirror toll transaction trends with the exception of 2012 when the 50 percent toll increase was implemented at the beginning of the calendar year. As shown, 2012 total passenger car toll revenues increased by 45.4 percent. During the same period, commercial vehicle toll revenues increased by 53.0 percent. The additional leap day in February 2012 also added to growth. 2013 passenger car toll revenues increased by 1.4 and commercial vehicle toll revenues increased by 0.5 percent over 2012 levels. Toll revenue growth in 2013 was negatively impacted by severe weather events and the return to a non-leap year compared to 2012. For commercial vehicle revenue, it is important to note that beginning in November 2013 NJTA changed its accounting for toll discounts, resulting in a slightly higher percentage of toll discounts being attributed to commercial vehicles and a decreased percentage being attributed to passenger cars. The large commercial revenue decreases beginning in November 2013 (and extending through most of 2014) are attributable to this accounting change.

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**Table 4**  
**Historical Gross Toll Revenue Trends By Month**  
**Garden State Parkway**  
**(Thousands of Dollars)**

Passenger Car Toll Revenue										
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change
January	\$18,353 (2)	53.5	\$28,181 (4)	2.6	\$28,919	(5.4)	\$27,357 (2,9)	0.1	\$27,396 (2)	4.4
February	18,383 (2)	52.5	28,025 (1)	(6.8)	26,127 (2)	(4.0)	25,078 (2)	3.8	26,034 (2)	12.7
March	21,474	43.9	30,902	(0.1)	30,856	0.1	30,876 (7)	(1.0)	30,573 (2)	8.5
April	21,454	46.2	31,374	0.4	31,496	2.0	32,137	1.5	32,625	0.7
May	23,043	48.7	34,261	(0.4)	34,132	2.4	34,961	2.1	35,690	(0.5)
June	24,036	47.7	35,513	(2.1)	34,762	3.3	35,909	0.3	36,024	3.7
July	26,252	42.2	37,343	0.8	37,650	1.6	38,267	3.4	39,568	0.3
August	24,660 (3)	55.5	38,345	1.1	38,748	1.0	39,125 (9)	2.8	40,207	0.5
September	22,664	43.8	32,587	2.4	33,360	1.3	33,788 (9)	3.1	34,828	0.1
October	22,263	34.0	29,833 (5)	12.1	33,454	0.1	33,476	1.1	33,841	1.0
November	20,843	36.1	28,367	8.8	30,872	(1.3)	30,469	3.9	31,652	1.8
December	21,417	41.2	30,245	(1.1)	29,921	4.7	31,335	3.6	32,472	(0.4)
TOTAL	\$264,842	45.4	\$384,976	1.4	\$390,297	0.6	\$392,778	2.1	\$400,910	2.4

Commercial Vehicle Toll Revenue (6)										
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change
January	\$705 (2)	53.2	\$1,080 (4)	12.1	\$1,211	(20.6)	\$962 (2,8,9)	2.3	\$984 (2)	2.0
February	673 (2)	59.1	1,071 (1)	3.0	1,103 (2)	(17.4)	911 (2,8)	3.7	945 (2)	8.1
March	865	47.5	1,276	(2.1)	1,249	(15.3)	1,058 (2,7,8)	6.8	1,130 (2)	9.9
April	889	51.3	1,345	9.8	1,477	(19.5)	1,189 (8)	9.3	1,299	3.6
May	1,022	53.2	1,566	10.6	1,732	(15.5)	1,463 (8)	1.2	1,480	(0.7)
June	1,075	44.5	1,553	4.2	1,619	(9.5)	1,465 (8)	3.8	1,520	(0.3)
July	1,085	55.0	1,682	4.0	1,749	(8.2)	1,605 (8)	2.4	1,643	(9.4)
August	1,032 (3)	61.7	1,669	2.3	1,707	(10.1)	1,534 (8,9)	3.1	1,582	(1.9)
September	949	49.4	1,418	4.7	1,485	(4.5)	1,418 (8,9)	1.2	1,435	(8.2)
October	966	39.4	1,347 (5)	2.3	1,378	4.4	1,438 (8)	2.4	1,472	(10.0)
November	850	66.5	1,415	(22.7)	1,094 (8)	1.0	1,105	18.3	1,307	(10.6)
December	777	59.6	1,240	(24.0)	943 (8)	14.4	1,079	7.0	1,155	(6.1)
TOTAL	\$10,888	53.0	\$16,662	0.5	\$16,747	(9.1)	\$15,227	4.8	\$15,952	(2.6)

Total Toll Revenue										
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change
January	\$19,058 (2)	53.5	\$29,261 (4)	3.0	\$30,130	(6.0)	\$28,319 (2,9)	0.2	\$28,380 (2)	4.4
February	19,056 (2)	52.7	29,096 (1)	(6.4)	27,230 (2)	(4.6)	25,989 (2)	3.8	26,979 (2)	12.6
March	22,339	44.0	32,178	(0.2)	32,105	(0.5)	31,934 (2,7)	(0.7)	31,703 (2)	8.6
April	22,343	46.4	32,719	0.8	32,973	1.1	33,326	1.8	33,924	0.8
May	24,065	48.9	35,827	0.1	35,864	1.6	36,424	2.0	37,170	(0.5)
June	25,111	47.6	37,066	(1.8)	36,381	2.7	37,374	0.5	37,544	3.5
July	27,337	42.8	39,025	1.0	39,399	1.2	39,872	3.4	41,211	(0.1)
August	25,692 (3)	55.7	40,014	1.1	40,455	0.5	40,659 (9)	2.8	41,789	0.4
September	23,613	44.0	34,005	2.5	34,845	1.0	35,206 (9)	3.0	36,263	(0.2)
October	23,229	34.2	31,180 (5)	11.7	34,832	0.2	34,914	1.1	35,313	0.5
November	21,693	37.3	29,782	7.3	31,966	(1.2)	31,574	4.4	32,959	1.3
December	22,194	41.9	31,485	(2.0)	30,864	5.0	32,414	3.7	33,627	(0.6)
TOTAL	\$275,730	45.7	\$401,638	1.3	\$407,044	0.2	\$408,005	2.2	\$416,862	2.2

(1) Leap year - February had 29 days.

(2) Severe winter weather events.

(3) Hurricane Irene.

(4) A 50% toll increase was implemented on January 1, 2012.

(5) Superstorm Sandy, October 29-30, 2012

(6) Consists of Classes 2 through B3. Heavy trucks, registered as 10,000 lbs or more (6 tires or 3-or-more-axes), are prohibited north of Interchange 105.

(7) Abnormally cold weather.

(8) NJTA changed its accounting for toll discounts, resulting in a slightly greater percentage of discounts attributed to commercial vehicles, and a decreased percentage attributed to passenger cars.

A comparison of commercial vehicle toll revenue to the prior year is not valid. The lost revenue exhibited for the commercial vehicles was added to the car category, but due to the relatively low value of the revenue shift, the impact is not noticeable for passenger cars.

(9) Casino closures: Atlantic Club in January, Showboat in August, and Revel and Trump Plaza in September.

Source: NJTA

Passenger car toll revenues in 2014 increased by 0.6 percent while commercial vehicle toll revenues decreased by 9.1 percent compared to 2013. Significant winter weather events that occurred during the first part of 2014 suppressed toll revenue growth on the Parkway. Additionally, several casino closures in the Atlantic City area also negatively impacted toll revenues on the Parkway during 2014. The above mentioned toll discount accounting change also severely impacted (negatively) commercial vehicle revenue during most of 2014. In 2015, passenger car toll revenues increased by 2.1 percent and commercial vehicle toll revenues increased by 4.8 percent over 2014. Multiple severe winter weather events negatively impacted toll revenue growth on the facility during the months of January and February 2015.

In 2016 monthly passenger car toll revenue on the Parkway has generally mirrored the growth trends observed on the Turnpike, though at a slightly more subdued level. Total passenger car revenue growth in 2016 was 2.4 percent compared to 2015. Commercial vehicle monthly revenue growth in 2016 has closely matched the patterns of growth in monthly toll transactions described above. As shown in Table 4, the patterns are highly variable, ranging from of 9.9 percent in March to -10.6 percent in November. Total 2016 revenue growth for commercial vehicles was -2.6 percent compared to 2015. Total vehicle revenue growth on the Parkway is very nearly identical to that for passenger cars alone. As shown, total revenue growth was 2.2 percent in 2016 versus 2015.

### ***NJTA System Total***

Table 5 shows monthly toll revenue trends for both of the Authority's roadways from January 2011 to December 2016. As shown, total combined toll revenue increased by 46.9 percent in 2012 over 2011, a result of the January 2012 toll rate increase. On a systemwide basis, it is estimated that the impacts of superstorm Sandy reduced total toll revenue by approximately \$15 million in 2012. Absent the impact, total toll revenue would have increased by approximately 48.5 percent in 2012 compared to 2011. Total system toll revenue increased by 1.4 percent between 2012 and 2013. During 2014, total NJTA toll revenue increased by 2.3 percent compared to 2013. As previously discussed above, growth in 2014 was negatively affected by the abnormally frequent and severe weather events during the first quarter that resulted in a state of emergency being declared for six separate events. Absent those negative weather impacts, total year-to-date normal revenue growth would have been around 3.0 percent. Of course, the previously discussed casino closings also negatively impacted Parkway revenue throughout the entire year. For 2015, systemwide toll revenue increased 5.4 percent over 2014.

In 2016, total toll revenue on the Turnpike increased by 3.5 percent compared to 2015. Total toll revenue on the Parkway increased by 2.2 percent during the same period. Systemwide, total toll revenue increased by 3.1 percent compared to 2015.

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**Table 5**  
**Historical Gross Toll Revenue Trends By Month**  
**Total of All Vehicle Classes**  
**(Thousands of Dollars)**

New Jersey Turnpike																	
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change	2016						
January	\$47,768	(2)	57.0	\$75,007	(5)	1.2	\$75,908	(3.7)	\$73,073	(2)	4.2	\$76,146	(2,10)	4.7	\$79,762	(10)	
February	46,734	(2)	56.8	73,269	(1)	(6.5)	68,516	(2)	(4.6)	65,360	(2)	11.1	72,614	(2,10)	12.0	81,306	(1,10)
March	55,080		47.8	81,414		0.7	81,986		0.0	81,994	(9)	5.0	86,095	(2,10)	9.5	94,269	(10)
April	55,808		46.0	81,487		3.4	84,291		3.8	87,480	(10)	6.8	93,391	(10)	0.4	93,785	(10)
May	57,958		51.5	87,818		0.9	88,594		3.7	91,866	(10)	6.9	98,246	(10)	1.3	99,532	(10)
June	58,603		51.3	88,674		(2.7)	86,323		6.0	91,501	(10)	6.4	97,340	(10)	3.8	101,079	(10)
July	61,254	(3)	48.1	90,691		0.2	90,883		3.4	93,986	(10)	9.7	103,077	(10)	1.0	104,128	(10)
August	60,658	(4)	53.8	93,297		1.6	94,835		1.3	96,105	(10)	7.3	103,089	(10)	3.1	106,323	(10)
September	57,552		40.6	80,894		4.2	84,290		4.7	88,282	(10)	5.4	93,074	(10)	2.9	95,758	(10)
October	58,800		32.6	77,947	(8)	12.8	87,905		6.1	93,233	(10)	3.9	96,825	(10)	1.6	98,352	(10)
November	56,624		39.7	79,081		3.7	81,972		5.3	86,356	(10)	7.0	92,405	(10)	3.1	95,274	(10)
December	56,311		46.4	82,441		(1.5)	81,217		9.0	88,507	(10)	6.2	93,965	(10)	1.1	94,989	(10)
TOTAL	\$673,150		47.4	\$992,020		1.5	\$1,006,720		3.1	\$1,037,743		6.6	\$1,106,267		3.5	\$1,144,557	

Garden State Parkway																	
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change	2016						
January	\$19,058	(2)	53.5	\$29,261	(7)	3.0	\$30,130	(6.0)	\$28,319	(2)	0.2	\$28,380	(2)	4.4	\$29,617		
February	19,056	(2)	52.7	29,096	(1)	(6.4)	27,230	(2)	(4.6)	25,989	(2)	3.8	26,979	(2)	12.6	30,373	(1)
March	22,339		44.0	32,178		(0.2)	32,105		(0.5)	31,934	(9)	(0.7)	31,703	(2)	8.6	34,420	
April	22,343		46.4	32,719		0.8	32,973		1.1	33,326		1.8	33,924		0.8	34,206	
May	24,065		48.9	35,827		0.1	35,864		1.6	36,424		2.0	37,170		(0.5)	36,988	
June	25,111		47.6	37,066		(1.8)	36,381		2.7	37,374		0.5	37,544		3.5	38,874	
July	27,337		42.8	39,025		1.0	39,399		1.2	39,872		3.4	41,211		(0.1)	41,178	
August	25,692	(4)	55.7	40,014		1.1	40,455		0.5	40,659		2.8	41,789		0.4	41,946	
September	23,613		44.0	34,005		2.5	34,845		1.0	35,206		3.0	36,263		(0.2)	36,195	
October	23,229		34.2	31,180	(8)	11.7	34,832		0.2	34,914		1.1	35,313		0.5	35,499	
November	21,693		37.3	29,782		7.3	31,966		(1.2)	31,574		4.4	32,959		1.3	33,377	
December	22,194		41.9	31,485		(2.0)	30,864		5.0	32,414		3.7	33,627		(0.6)	33,431	
TOTAL	\$275,730		45.7	\$401,638		1.3	\$407,044		0.2	\$408,005		2.2	\$416,862		2.2	\$426,104	

Total Toll Revenue																	
Month	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015	Percent Change	2016						
January	\$66,826	(2)	56.0	\$104,268	(5,7)	1.7	\$106,038	(4.4)	\$101,392	(2)	3.1	\$104,526	(2,10)	4.6	\$109,379	(10)	
February	65,790	(2)	55.6	102,365	(1)	(6.5)	95,746	(2)	(4.6)	91,349	(2)	9.0	99,593	(2,10)	12.1	111,679	(1,10)
March	77,419		46.7	113,592		0.4	114,091		(0.1)	113,928	(9)	3.4	117,798	(2,10)	9.2	128,689	(10)
April	78,151		46.1	114,206		2.7	117,264		3.0	120,806	(10)	5.4	127,315	(10)	0.5	127,991	(10)
May	82,023		50.7	123,645		0.7	124,458		3.1	128,290	(10)	5.6	135,416	(10)	0.8	136,520	(10)
June	83,714		50.2	125,740		(2.4)	122,704		5.0	128,875	(10)	4.7	134,884	(10)	3.8	139,953	(10)
July	88,591	(3)	46.4	129,716		0.4	130,282		2.7	133,858	(10)	7.8	144,288	(10)	0.7	145,306	(10)
August	86,350	(4)	54.4	133,311		1.5	135,290		1.1	136,764	(10)	5.9	144,878	(10)	2.3	148,269	(10)
September	81,165		41.6	114,899		3.7	119,135		3.7	123,488	(10)	4.7	129,337	(10)	2.0	131,953	(10)
October	82,029		33.0	109,127	(8)	12.5	122,737		4.4	128,147	(10)	3.1	132,138	(10)	1.3	133,851	(10)
November	78,317		39.0	108,863		4.7	113,938		3.5	117,930	(10)	6.3	125,364	(10)	2.6	128,651	(10)
December	78,505		45.1	113,926		(1.6)	112,081		7.9	120,921	(10)	5.5	127,592	(10)	0.6	128,420	(10)
TOTAL	\$948,880		46.9	\$1,393,658		1.4	\$1,413,764		2.3	\$1,445,748		5.4	\$1,523,129		3.1	\$1,570,661	

(1) Leap year - February had 29 days.

(2) Severe winter weather events.

(3) On July 1, 2011, the off-peak discount for passenger cars with non-NJ E-ZPass was eliminated. Non-NJ E-ZPass off-peak rates increased by 33%.

(4) Hurricane Irene.

(5) A 53% toll increase was implemented on January 1, 2012.

(6) The Pascack Valley mainline toll plaza was converted to one-way tolling, resulting in a negative impact on total toll transactions and toll revenue.

(7) A 50% toll increase was implemented on January 1, 2012.

(8) Superstorm Sandy, October 29-30, 2012.

(9) Abnormally cold weather.

(10) Construction on the Pulaski Skyway positively impacted passenger car traffic on the Turnpike.

Source: NJTA

## **Forecast Versus Actual Experience**

The purpose of this section is to review actual versus estimated traffic and revenue experience since completion of CDM Smith's last Draw Down Letter (dated October 2, 2015). The first forecast month at that time was September 2015. Thus, the comparison period is comprised of 16 months, including September 2015 through December 2016. Tables 6 through 8 provide this comparison for the Turnpike, the Parkway and the total NJTA system, respectively.

It should be emphasized that considerable variations may exist between actual and forecast values on a monthly basis. Weather events, accidents, and other variables can impact day to day and month to month traffic in ways that would be difficult to forecast with precision. As a result of these variations, actual traffic and revenue can be higher or lower than estimates, sometimes in the extreme, on a short term basis. While CDM Smith forecasts attempt to take as many of these factors into account as possible (when they are known and can be quantified), our forecasts are much more meaningful when considering them with a longer term perspective. As such, while the information provided in Tables 6 through 8 show monthly variations between actual and forecast values, the more important comparison should be at the aggregate level for the entire comparison period.

Table 6 provides a comparison of actual Turnpike traffic and toll revenue to forecasted traffic and toll revenue over the 16 month period ending in December 2016. Forecasts were developed separately for passenger cars and commercial vehicles. As shown, actual passenger car toll transactions for the 16 months came in 1.5 percent above estimates while commercial vehicle toll transactions equaled estimates. When passenger car and commercial vehicle transactions are combined, total actual transactions were 1.3 percent above estimates.

Passenger car actual toll revenues over this 16 month period exceeded CDM Smith estimates by 1.8 percent. Commercial vehicle revenues were 0.9 percent less than estimates. For the total Turnpike, actual revenue experience exceeded forecasts by 0.9 percent. The overall trend is that actual traffic and revenue experience was generally close to estimates (but higher) for the 16 month period ending in December 2016. The reason for this over performance is likely related to a strengthening economy, continued low motor fuel prices, increasing consumer confidence, steady employment growth and largely favorable weather conditions.

Table 7 shows similar information for the Garden State Parkway, though comparisons are only made on a total vehicle basis since commercial vehicles make up such a small (about 1.5 percent) portion of toll transactions on the Parkway. As shown, total actual toll transactions and total actual toll revenue for the 16 months ending in December 2016 were somewhat higher than estimates by 3.0 and 2.1 percent, respectively.

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**Table 6**  
**Comparison of Estimated and Actual Monthly Transactions and Toll Revenue**  
**New Jersey Turnpike**

		Transactions (thousands)								
		Passenger Cars			Commercial Vehicles			Total Vehicles		
		Percent			Percent			Percent		
Month	Year	Estimate (1)	Difference (2)	Actual (3)	Estimate (1)	Difference (2)	Actual (3)	Estimate (1)	Difference (2)	Actual (3)
September	2015	18,090	0.3	18,144	2,602	3.1	2,682	20,693	0.6	20,826
October	2015	18,792	1.1	19,003	2,756	1.4	2,793	21,548	1.2	21,796
November	2015	17,694	2.1	18,061	2,569	(1.2)	2,538	20,262	1.7	20,599
December	2015	17,658	4.3	18,415	2,529	2.8	2,601	20,187	4.1	21,016
January	2016	15,896	(0.3)	15,850	2,450	(5.5)	2,315	18,346	(1.0)	18,165
February	2016	15,264	5.7	16,127	2,323	3.6	2,406	17,588	5.4	18,533
March	2016	18,060	1.9	18,402	2,706	1.2	2,737	20,766	1.8	21,139
April	2016	18,485	(0.3)	18,426	2,683	(3.7)	2,584	21,168	(0.7)	21,010
May	2016	19,465	(0.4)	19,378	2,772	(3.5)	2,675	22,237	(0.8)	22,053
June	2016	19,390	1.4	19,662	2,781	1.0	2,809	22,171	1.4	22,471
July	2016	19,770	0.8	19,925	2,750	(3.3)	2,660	22,519	0.3	22,585
August	2016	19,959	1.6	20,270	2,790	3.7	2,893	22,750	1.8	23,163
September	2016	18,591	1.4	18,853	2,714	(0.3)	2,706	21,305	1.2	21,559
October	2016	19,248	0.8	19,411	2,866	(4.4)	2,741	22,114	0.2	22,152
November	2016	18,121	2.8	18,634	2,563	3.7	2,658	20,684	2.9	21,292
December	2016	18,300	2.2	18,696	2,618	2.2	2,676	20,918	2.2	21,372
Total		292,784	1.5	297,257	42,471	0.0	42,474	335,255	1.3	339,731

		Gross Toll Revenue (thousands of \$)								
		Passenger Cars			Commercial Vehicles			Total Vehicles		
		Percent			Percent			Percent		
Month	Year	Estimate (1)	Difference (2)	Actual (3)	Estimate (1)	Difference (2)	Actual (3)	Estimate (1)	Difference (2)	Actual (3)
September	2015	\$61,608	1.1	\$62,285	\$30,447	1.1	\$30,789	\$92,055	1.1	\$93,074
October	2015	63,507	1.7	64,572	33,171	(2.8)	32,253	96,678	0.2	96,825
November	2015	61,925	1.4	62,788	30,750	(3.7)	29,617	92,674	(0.3)	92,405
December	2015	61,021	4.3	63,619	29,185	4.0	30,346	90,206	4.2	93,965
January	2016	53,058	0.0	53,075	28,321	(5.8)	26,687	81,380	(2.0)	79,762
February	2016	50,024	7.2	53,615	26,875	3.0	27,691	76,899	5.7	81,306
March	2016	60,276	3.8	62,543	30,799	3.0	31,726	91,074	3.5	94,269
April	2016	64,025	(0.2)	63,923	31,289	(4.6)	29,862	95,313	(1.6)	93,785
May	2016	68,611	(0.8)	68,030	32,669	(3.6)	31,502	101,280	(1.7)	99,532
June	2016	67,381	1.9	68,664	31,873	1.7	32,415	99,254	1.8	101,079
July	2016	71,461	2.5	73,258	31,600	(2.3)	30,870	103,062	1.0	104,128
August	2016	73,298	0.1	73,343	31,304	5.4	32,980	104,602	1.6	106,323
September	2016	63,452	2.1	64,768	31,783	(2.5)	30,990	95,234	0.5	95,758
October	2016	65,195	2.0	66,531	34,542	(7.9)	31,821	99,737	(1.4)	98,352
November	2016	63,562	1.1	64,293	30,709	0.9	30,981	94,271	1.1	95,274
December	2016	63,369	1.5	64,294	30,213	1.6	30,695	93,582	1.5	94,989
Total		\$1,011,773	1.8	\$1,029,601	\$495,531	(0.9)	\$491,225	\$1,507,304	0.9	\$1,520,826

(1) Estimates were developed by CDM Smith and presented to the New Jersey Turnpike Authority in the report titled *2015 New Jersey Turnpike System Draw Down Letter* dated October 2, 2015.

(2) The actual experience is greater or less than the CDM Smith estimate by this percent.

(3) Actual data provided by the New Jersey Turnpike Authority.



**Table 7**  
**Comparison of Estimated and Actual Monthly Transactions and Toll Revenue**  
**Garden State Parkway**

Month	Year	Transactions (thousands)			Toll Revenue (thousands)		
		Estimate (1)	Percent Difference (2)	Actual (3)	Estimate (1)	Percent Difference (2)	Actual (3)
September	2015	31,753	3.4	32,829	\$35,458	2.3	\$36,263
October	2015	31,470	2.4	32,225	34,775	1.5	35,313
November	2015	29,328	2.9	30,165	32,270	2.1	32,959
December	2015	29,312	5.8	31,026	32,015	5.0	33,627
January	2016	27,023	1.5	27,434	29,340	0.9	29,617
February	2016	26,104	7.0	27,933	28,242	7.5	30,373
March	2016	30,498	3.7	31,636	33,178	3.7	34,420
April	2016	30,990	1.5	31,455	33,974	0.7	34,206
May	2016	33,502	0.8	33,786	37,003	(0.0)	36,988
June	2016	34,229	3.3	35,364	37,956	2.4	38,874
July	2016	36,566	1.4	37,069	40,786	1.0	41,178
August	2016	36,219	3.8	37,588	40,522	3.5	41,946
September	2016	32,211	2.6	33,064	35,991	0.6	36,195
October	2016	32,112	1.2	32,487	35,506	(0.0)	35,499
November	2016	29,751	3.5	30,789	32,748	1.9	33,377
December	2016	29,978	3.4	31,004	32,749	2.1	33,431
Total		501,047	3.0	515,854	\$552,514	2.1	\$564,266

- (1) Estimates were developed by CDM Smith and presented to the New Jersey Turnpike Authority in the report titled *2015 New Jersey Turnpike System Draw Down Letter* dated October 2, 2015.
- (2) The actual experience is greater or less than the CDM Smith estimate by this percent.
- (3) Actual data provided by the New Jersey Turnpike Authority.

Table 8 shows a summary of total Turnpike, Parkway, and systemwide toll revenue. As shown, actual total Turnpike toll revenue was higher than estimated Turnpike total revenue by 0.9 percent for the 16 month period ending in December 2016. Total Parkway toll revenue was 2.1 percent above the estimate for the same period. Total combined system wide actual toll revenue was 1.2 percent higher than the CDM Smith estimate.

**Table 8**  
**Comparison of System Total: Estimated and Actual Monthly Gross Toll Revenue**

		Gross Toll Revenue (thousands of \$)								
		New Jersey Turnpike			Garden State Parkway			NJTA Total System		
		Percent			Percent			Percent		
Month	Year	Estimate (1)	Difference (2)	Actual (3)	Estimate (1)	Difference (2)	Actual (3)	Estimate (1)	Difference (2)	Actual (3)
September	2015	\$92,055	1.1	\$93,074	\$35,458	2.3	\$36,263	\$127,513	1.4	\$129,337
October	2015	96,678	0.2	96,825	34,775	1.5	35,313	131,453	0.5	132,138
November	2015	92,674	(0.3)	92,405	32,270	2.1	32,959	124,944	0.3	125,364
December	2015	90,206	4.2	93,965	32,015	5.0	33,627	122,222	4.4	127,592
January	2016	81,380	(2.0)	79,762	29,340	0.9	29,617	110,720	(1.2)	109,379
February	2016	76,899	5.7	81,306	28,242	7.5	30,373	105,142	6.2	111,679
March	2016	91,074	3.5	94,269	33,178	3.7	34,420	124,252	3.6	128,689
April	2016	95,313	(1.6)	93,785	33,974	0.7	34,206	129,287	(1.0)	127,991
May	2016	101,280	(1.7)	99,532	37,003	(0.0)	36,988	138,284	(1.3)	136,520
June	2016	99,254	1.8	101,079	37,956	2.4	38,874	137,210	2.0	139,953
July	2016	103,062	1.0	104,128	40,786	1.0	41,178	143,848	1.0	145,306
August	2016	104,602	1.6	106,323	40,522	3.5	41,946	145,124	2.2	148,269
September	2016	95,234	0.5	95,758	35,991	0.6	36,195	131,225	0.6	131,953
October	2016	99,737	(1.4)	98,352	35,506	(0.0)	35,499	135,244	(1.0)	133,851
November	2016	94,271	1.1	95,274	32,748	1.9	33,377	127,020	1.3	128,651
December	2016	93,582	1.5	94,989	32,749	2.1	33,431	126,331	1.7	128,420
Total		\$1,507,304	0.9	\$1,520,826	\$552,514	2.1	\$564,266	\$2,059,818	1.2	\$2,085,092

(1) Estimates were developed by CDM Smith and presented to the New Jersey Turnpike Authority in the report titled *2015 New Jersey Turnpike System Draw Down Letter* dated October 2, 2015.

(2) The actual experience is greater or less than the CDM Smith estimate by this percent.

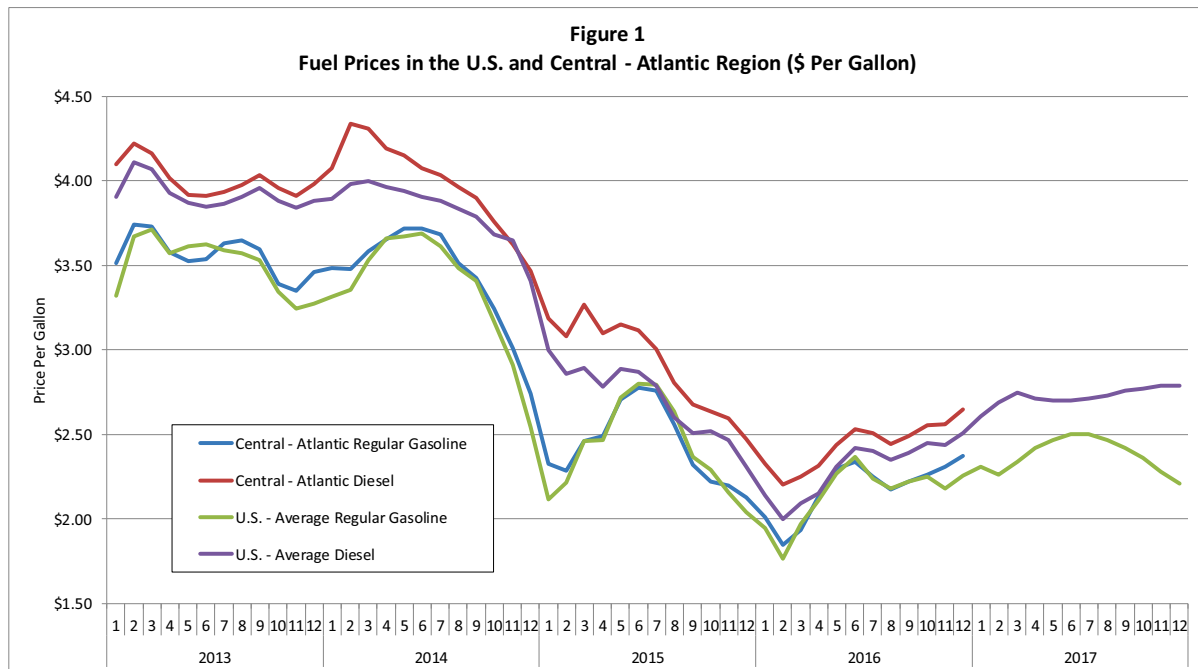
(3) Actual data provided by the New Jersey Turnpike Authority.

## Traffic and Revenue Growth Explanatory Factors

Weather, toll increases, construction, and leap year impacts were discussed previously regarding their impacts on estimated traffic and toll revenue on the NJTA system. Additional variables that can be used to help guide forecasts and explain differences between forecast and actual data are motor fuel prices and general measures of the economy, such as those reflected by gross domestic product (GDP), and consumer confidence. These are discussed below.

### Motor-Fuel Prices

Figure 1 shows the historic, average, regular-grade gasoline and all-types diesel prices for the Central-Atlantic Region and the U.S. from January 2013 through December 2016. Also shown are the forecast average prices for regular-grade gasoline and all-types diesel at the U.S. level from January 2017 through December 2017.



Source: U.S. Energy Information Administration

Note: Actual data through December 31, 2016. Data for 2017 is estimated. Retail prices are in USD for all formulations of regular gasoline and all types of diesel.

Forecasts are only available for U.S. average fuel prices. As shown, gasoline and diesel prices have followed generally similar trends throughout this period. Between January 2013 and around September 2014, both gasoline and diesel prices fluctuated within a relatively narrow range. Beginning around October 2014, however, motor fuel prices began a noticeable decline. In early 2015, gasoline prices broke below \$2.50. In early 2016, gas prices fell even further, below \$2.00 per gallon, due to the expectations of low economic growth, lower global energy demand and a global energy supply glut. However, average national gasoline prices have most recently stayed firmly above \$2.00 per gallon, and lately (as of December 2016) even closer to \$2.25 per gallon. Based on current forecasts from the U.S. Energy Information Administration, near term price forecasts are expected to remain stable. Continued low fuel prices would have a continued positive impact on transaction growth on both the Turnpike and the Parkway.

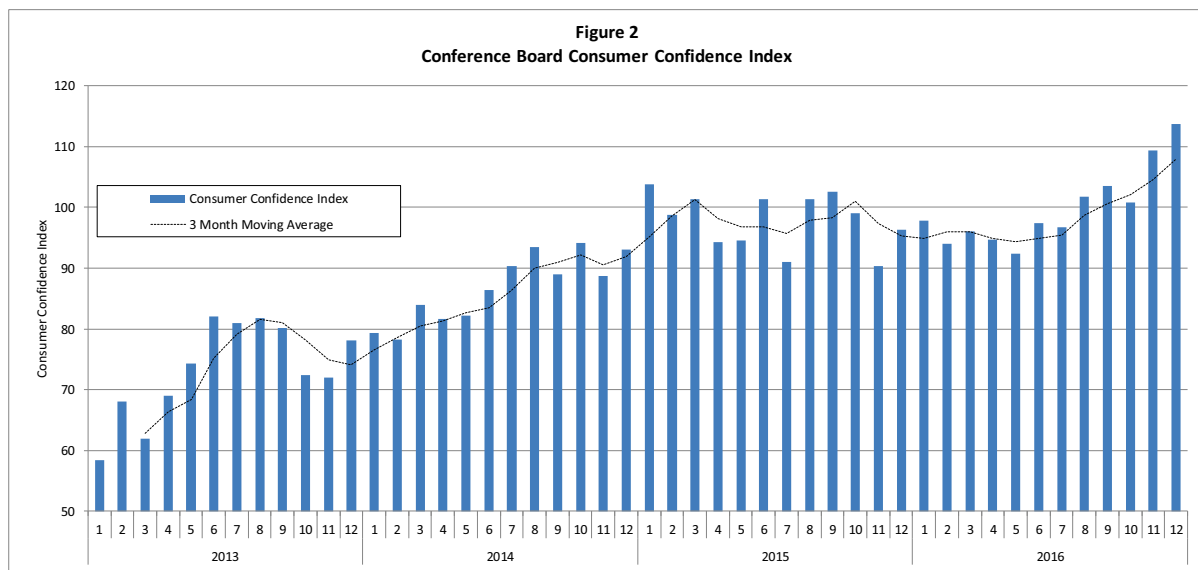
### **Consumer Confidence**

Figure 2 shows the Conference Board Consumer Confidence Index for the period between January 2013 and December 2016. The individual blue bars show the index values for each month while the

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dotted line shows the three-month moving average. As shown, consumer confidence has trended up over the period shown. The average exceeded 70 in 2013, was over 85 in 2014, nearly 98 in 2015, and was approximately 99 in 2016. By the end of 2016, consumer confidence rose to pre-recession levels for the first time since the 2008 recession.

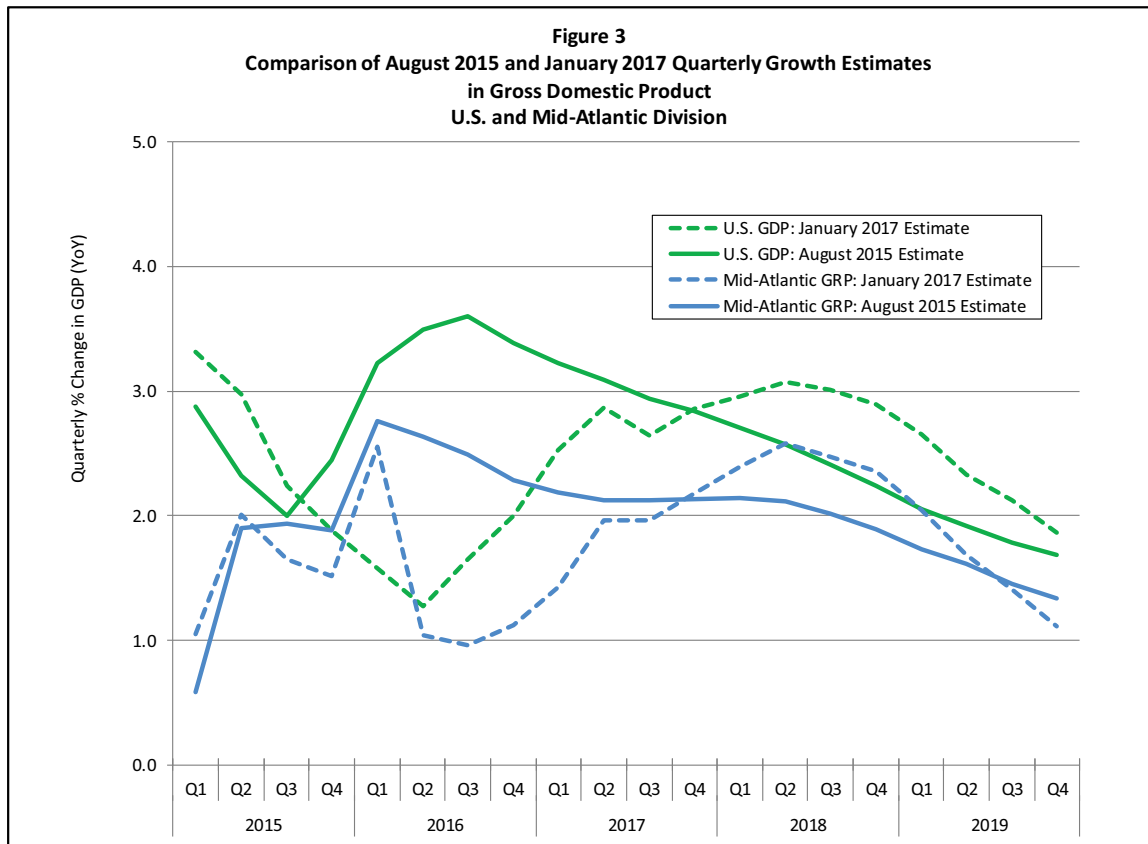
Consumer confidence is an important measure in that it highlights consumer's willingness to travel more, to be more confident in making purchases, etc. This, in turn, spurs demand for various goods and services. For example, based on recent U.S. Commerce Department figures, U.S. construction spending rose in November 2016 to the highest level in just over ten years as a result of both public and private sector investments.



Source: The Conference Board - Consumer Confidence Index®.

### ***Actual and Estimated Gross Domestic and Gross Regional Product***

The 2015 Draw Down Letter was based in part on U.S. gross domestic product (GDP) and Mid-Atlantic gross regional product (GRP) forecasts available in August 2015, both developed by Moody's Analytics. This information was a key input in developing estimated growth forecasts for the NJTA system. This section presents a comparison of the GDP and GRP information available for the 2015 Draw Down Letter with updated forecasts for GDP and GRP (based on January 2017 forecasts) from Moody's Analytics.



Source: Actuals are from the Bureau of Economic Analysis and estimates are by Moody's Analytics.

Last Actual Data:

January 2017 Series: US-3rd Quarter 2016 and Mid-Atlantic - 1st Quarter 2016

August 2015 Series: US - 2nd Quarter 2015 and Mid-Atlantic - 4th Quarter 2014.

A graphic comparison between the economic indicators available for the 2015 Draw Down Letter and this current Draw Down letter are shown in Figure 3. The solid lines in Figure 3 show the U.S. GDP and Mid-Atlantic GRP that were available for the 2015 Draw Down Letter. The dashed lines show the updated GDP and GRP. Growth rates based on the 2017 Series peak in 2018 and then taper down through 2019. The important element of this comparison is that for two years beginning in the fourth quarter of 2015, the new GDP and GRP estimates are slightly lower than those assumed in the 2015 Draw Down Letter. GDP and GRP in 2018 is expected to grow slightly higher than the previous estimates.

The recent overperformance of actual traffic and revenue experience compared to CDM Smith estimates is largely driven by factors other than GDP and GRP, such as motor fuel prices, consumer confidence and historically low unemployment levels. Recent trends and short term forecasts of motor fuel prices, GDP/GRP, and consumer confidence are all positive and help to explain the over performance of actual traffic and revenue experience on the Turnpike and Parkway since completion of the 2015 Draw Down Letter. These trends are expected to continue into the near future and have been factored into the short term forecast developed as part of this Draw Down Letter. The extent of the impact will be discussed in the next section.

### **Other Considerations**

There are two other factors that will have impacts on NJTA system traffic and toll revenue in the near term (and longer) forecast period. These factors include a recent New Jersey state motor fuel tax increase and revised assumptions associated with committed roadway projects that impact NJTA traffic.

#### ***New Jersey Motor Fuel Tax Increase***

On November 1, 2016, the first state gas tax increase since 1988 went into effect in New Jersey. This legislation raised the state gas tax 23 cents from 14.5 cents per gallon to 37.5 cents per gallon. The tax increase will contribute to the state Transportation Trust Fund. A diesel tax increase was also included in the bill which takes place in two parts. On January 1, 2017, a 16.9 cent per gallon tax increase took effect. This amount represented the conversion of a 12.5 percent tax increase to cents per gallon. On July 1, 2017, the second phase of the tax increase will take effect, which will be valued based on 12.5 percent of the per gallon diesel fuel price before taxes. Gasoline tax increases will mostly effect passenger vehicle travel patterns, while the diesel fuel prices almost exclusively impact commercial traffic.

#### ***Committed Roadway Improvements***

CDM Smith provided a list of committed roadway improvements in the 2014 Forecast Study using the information available at the time. At that time, CDM Smith reviewed major committed roadway projects that were taken into consideration through discussions with the NJTA staff and by reviewing the following documents:

- NJTPA FY 2016-2019 TIP (North Jersey Transportation Planning Authority);
- DVRPC FY 2016-2019 TIP for NJ (Delaware Valley Regional Planning Commission);
- DVRPC FY 2016-2019 TIP for PA (Delaware Valley Regional Planning Commission);
- FY 2016 - 2025 New Jersey Statewide Transportation Improvement Program;

- FY 2016-25 Transportation Improvement Program (South Jersey Transportation Planning Organization); and
- 2016 New Jersey Turnpike Authority Capital Project and Investment Plan.

The roadway improvement projects listed in Table 9 and pictured in Figures 4 and 5 were reviewed to determine their potential for impacting traffic and toll revenue on the Turnpike or Parkway, either permanently or temporarily. The listed improvements fall into the following four broad categories. The Improvement Numbers refer to the Project Number shown in Table 9 and Figures 4 and 5.

- 1) New capacity/roadway widening (Improvement Number 4);
- 2) Improved interchanges (Improvement Numbers 2, 5, 6, 7);
- 3) New interchanges (Improvement Number 10); and
- 4) Bridge improvements (Improvement Numbers 1, 3, 8, 9, 11).

The Parkway's widening project continues in its final phase. When the project is complete in 2018, one additional lane in each direction will have been added between mileposts 30 and 80. Five existing interchanges on the Parkway will have new ramps constructed that will provide for previously missing movements. One interchange (14A) on the Turnpike will be realigned and improved in order to deal with anticipated growth in traffic volumes associated with adjacent development. There will also be a new major interchange constructed, creating a direct, high-speed connection between I-276 (PA Turnpike) and I-95 north of Philadelphia, PA. In early 2018 it is planned that ramps in one quadrant of the interchange will be completed. Those ramps will provide access between northbound I-95 to eastbound I-276, and westbound I-276 to southbound I-95.

Several bridge projects are also underway. The rehabilitation of a section of the Pulaski Skyway began in 2014. This project includes replacing the 3.5 mile Pulaski Skyway deck, rehabilitating the ramps and steel superstructure and substructure. A new \$400 million project begins this year to expand the Scudder Falls Bridge on the Pennsylvania border. A new 4 lane span will be constructed, which all traffic will be directed to. Then the currently used 4 lane span will be rehabilitated and the final result will be 4 lanes crossing the Delaware River in each direction.

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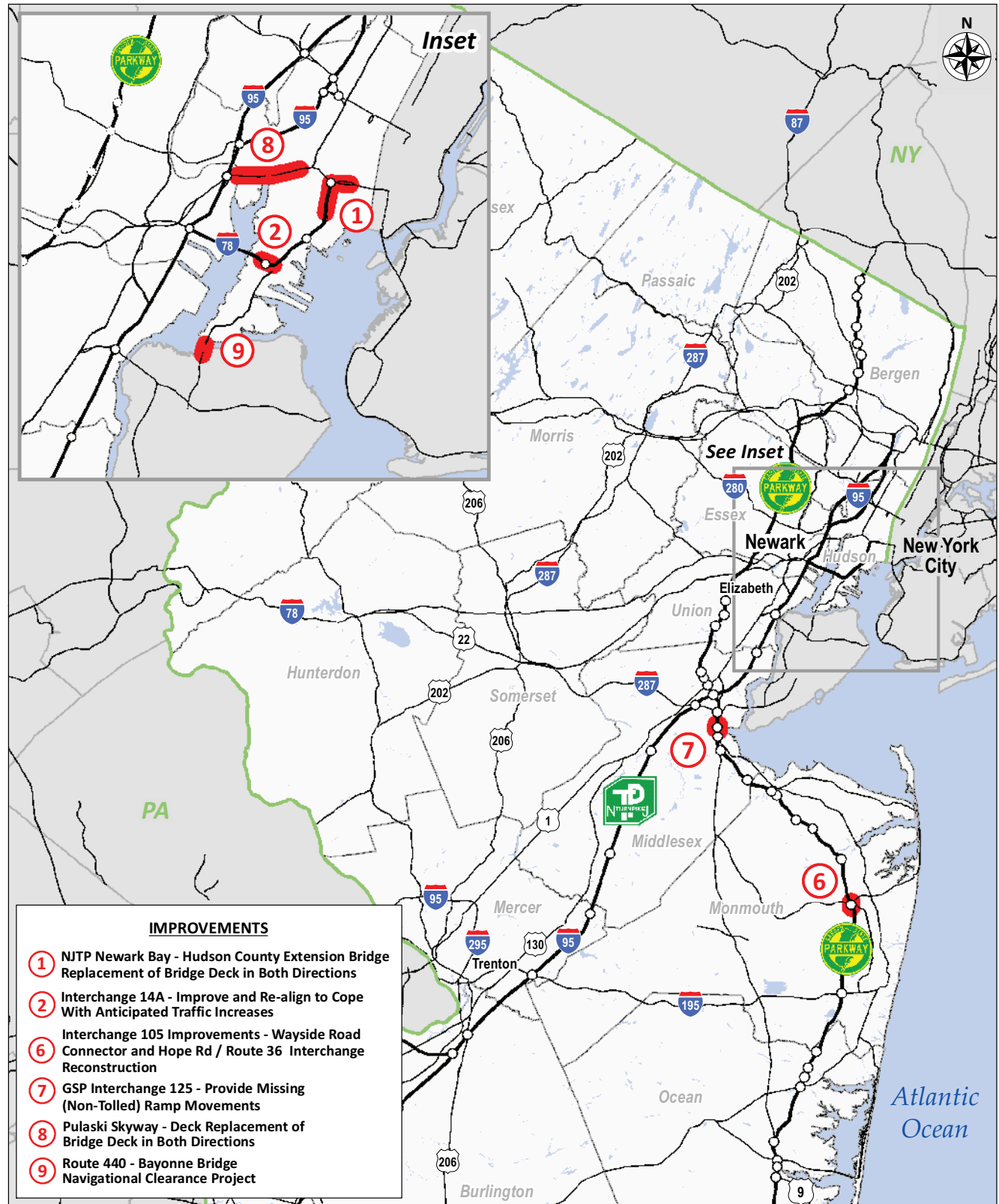
**Table 9**  
**Summary of Major Committed Roadway Improvements**  
**Considered For The Traffic and Toll Revenue Analysis**

<b>Project Number (1)</b>	<b>Location By Interchange (Int) or Milepost (MP)</b>	<b>Description</b>	<b>Actual or Assumed Start Date</b>	<b>Assumed Completion Date</b>
<b>Turnpike</b>				
1	Newark Bay-Hudson County Extension	Replacement of the bridge deck in both directions	2012	2020
2	Interchange 14A	Improve and re-align Interchange 14A to cope with anticipated traffic increases.	2014	2018
<b>Parkway</b>				
3	Great Egg Harbor Bridge Improvement	Replacing southbound and northbound spans of bridge.	2013	2019
4	Interchange 30 to 80 Widening Phase 3 (MP 38 to 48)	Add 1 additional lane per direction to total 3 lanes per direction.	2014	2018
5	Interchange 36 (US 40 / 322), 37 (Washington Ave. Pleasantville), 38 (Atlantic City Expressway)	Provide missing ramp connections.	2014	2018
6	Interchange 105 (Route 18 East)	Wayside Road Connector and Hope Road / Route 36 interchange reconstruction.	2013	2018
7	Interchange 125 (Route 35 / South Amboy)	Provide missing ramp connections.	2012	2019
<b>Other Roadways</b>				
8	Pulaski Skyway	Replacement of the bridge deck in both directions.	2014	2017
9	Route 440 / Bayonne Bridge	Raise height of bridge deck to accommodate boat traffic.	2014	2017
10	I-276 / I-95 Interchange (Stage 1)	Provide a partial interchange between I-276 and I-95.	2012	2018
11	Scudder Falls Bridge	Double bridge capacity with new span.	2017	2021

(1) Corresponds to improvements numbered in Figures 4 and 5.

Sources: DVRPC FY 2016-2019 TIP For NJ (Delaware Valley Regional Planning Commission)  
DVRPC FY 2016-2019 TIP For PA (Delaware Valley Regional Planning Commission)  
FY 2016 - 2025 New Jersey Statewide Transportation Improvement Program  
FY 2016-25 Transportation Improvement Program (South Jersey Transportation Planning Organization)  
2016 New Jersey Turnpike Authority Capital Project and Investment Plan

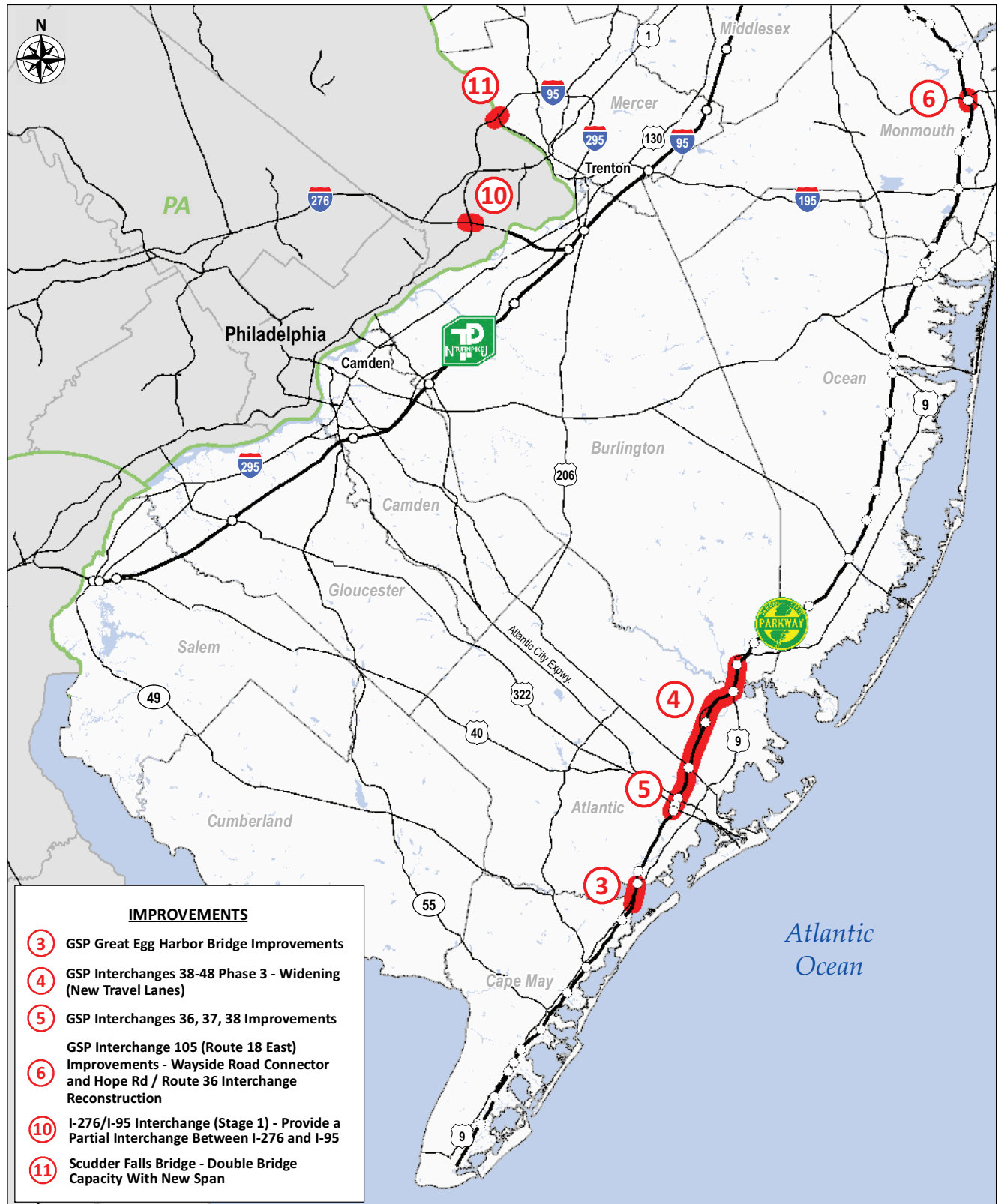




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## ROADWAY IMPROVEMENTS NORTHERN NEW JERSEY

FIGURE 4



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## ROADWAY IMPROVEMENTS SOUTHERN NEW JERSEY

Most of the improvements identified in Table 9 were estimated to have nominal impacts or the impacts were already largely incorporated into current travel patterns (Parkway widening, for example). However, impacts from the following two projects were specifically factored into the forecasts developed by CDM Smith.

**Pulaski Skyway (Number 8 in Figure 4)** - In April 2014, the Pulaski Skyway was closed to eastbound (toward the Holland Tunnel) traffic. The eastbound travel direction was originally scheduled to be closed for a two-year period as the bridge deck was replaced. Due to construction delays and missed deadlines, the bridge is expected to return to normal operations at the beginning of the third quarter of 2017. The primary diversion route during the construction period was identified as the I-78 Turnpike Extension. The CDM Smith forecasts haven been updated to assume the continuation of positive diversion impact of the Pulaski Skyway closure for the first three quarters of 2017. The estimated impact of the Pulaski Skyway closure is about a 1.2 percent increase in total Turnpike toll revenue.

**I-276/I-95 Interchange Project (Number 10 in Figure 5)** - This was shown to have a slight negative impact on Turnpike toll transactions as motorists would be able to use the Turnpike's Pearl Harbor Memorial Extension to access I-95 directly on the Pennsylvania Turnpike for movements to and from the Philadelphia metro area. This is estimated to decrease total Turnpike passenger car transactions by about 0.4 percent. This was split into two negative impacts of 0.2 percent in both 2018 and 2019. Total impacts for commercial vehicles were negligible and are estimated to decrease commercial traffic on the Turnpike by only about 0.1 percent. There is no change in the project completion date.

In addition, the expansion and replacement of the Scudder Falls Bridge on the I-95 crossing into Pennsylvania (Number 11 in Figure 5) is a large budget project that could have an impact on Turnpike traffic. The bridge carries commuter traffic across the Delaware River into the Philadelphia metro area. The old bridge will be demolished and replaced with a new span. The upstream span will carry three lanes, plus one auxiliary lane, of southbound traffic, while the downstream bridge will carry three, plus two auxiliary lanes, of northbound traffic. A toll will be levied by cashless method for all traffic entering Pennsylvania. The combined effect of additional capacity and a new toll will be a net positive for New Jersey Turnpike traffic and revenue. Any positive revenue impacts from traffic diverted from Scudder Fall Bridge, after introduction of tolls, however, have not been factored into these traffic and revenue forecasts.

### **Updated Traffic and Revenue Estimates**

Table 10 provides a summary of the revised estimates of toll traffic and toll revenue for both the Turnpike and the Parkway. These forecasts include actual data through December 2016. Monthly forecasts were reviewed and adjusted for the remainder of 2017 and for 2018; thereafter, growth

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**Table 10**  
**Estimated Annual Traffic and Toll Revenue**  
**New Jersey Turnpike Authority**  
**All Values in Thousands**

Year	Annual Toll Transactions (1)					October 2015 T&R Study System Total	Percent Difference
	Turnpike			Parkway Total	System Total		
	Passenger Cars	Commercial Vehicles	Turnpike Total				
2015	215,358	31,237	246,595	379,283	625,878	617,978	1.3%
2016 (2)	223,634	31,860	255,494	389,609	645,103	631,750	2.1%
2017 (3)(4)	224,240	32,033	256,273	391,297	647,570	634,152	2.1%
2018	223,598	32,591	256,189	394,661	650,850	642,501	1.3%
2019	227,041	33,015	260,056	399,003	659,059	650,612	1.3%
2020 (2)	231,569	33,544	265,113	404,400	669,513	659,297	1.5%
2021	235,034	33,913	268,947	407,385	676,332	667,691	1.3%
2022	239,147	34,370	273,517	411,418	684,935	676,201	1.3%
2023	243,332	34,834	278,166	415,491	693,657	684,666	1.3%
2024 (2)	248,209	35,393	283,602	420,654	704,256	693,247	1.6%
2025	251,923	35,781	287,704	423,759	711,463	--	--
2026	256,332	36,264	292,596	427,954	720,550	--	--

Year	Annual Toll Revenue (1)					October 2015 T&R Study System Total	Percent Difference
	Turnpike			Parkway Total	System Total		
	Passenger Cars	Commercial Vehicles	Turnpike Total				
2015	\$745,007	\$361,261	\$1,106,268	\$416,866	\$1,523,134	\$1,511,870	0.7%
2016 (2)	776,337	368,221	1,144,558	426,105	1,570,663	1,553,686	1.1%
2017 (3)(4)	767,388	369,912	1,137,300	428,123	1,565,423	1,546,359	1.2%
2018	770,961	376,197	1,147,158	432,009	1,579,167	1,567,002	0.8%
2019	782,748	380,152	1,162,900	436,957	1,599,857	1,587,540	0.8%
2020 (2)	797,958	385,841	1,183,799	443,033	1,626,832	1,610,138	1.0%
2021	809,491	389,664	1,199,155	446,470	1,645,625	1,632,665	0.8%
2022	823,243	394,598	1,217,841	451,059	1,668,900	1,655,599	0.8%
2023	837,397	399,710	1,237,107	455,695	1,692,802	1,678,812	0.8%
2024 (2)	854,182	405,999	1,260,181	461,529	1,721,710	1,702,450	1.1%
2025	866,963	410,416	1,277,379	465,109	1,742,488	--	--
2026	882,134	415,957	1,298,091	469,882	1,767,973	--	--

(1) Data through December 2016 is actual.

(2) Leap Year, includes 29 days in February.

(3) Assumes Pulaski Skyway opening to traffic in both direction beginning October 1, 2017.

(4) Includes the traffic and revenue impacts of the Delaware River Turnpike Bridge closure between January 20 and March 12.

forecasts remain unchanged from those provided in CDM Smith's October 2015 Draw Down Letter. For comparative purposes, total systemwide traffic and revenue forecasts from the October 2015 Draw Down Letter are also provided in this table. The revisions incorporated have considered all of the factors described previously in this report, including recent historical experience, updated short term motor fuel prices and GDP forecasts, and highway improvement impacts.

As shown in Table 10, total Turnpike toll transactions are estimated to increase from about 255.5 million in 2016 to just under 292.6 million by 2026, an average annual growth rate of 1.4 percent. Total Parkway toll transactions are estimated to increase from 389.6 million in 2016 to approximately 428.0 million by 2026; this reflects an average annual growth rate of 0.9 percent. Total NJTA System toll transactions increase from 645.1 million to about 720.6 million between 2016 and 2026, an average growth rate of 1.1 percent per year.

Total Turnpike toll revenue is estimated to grow from \$1,144.6 million in 2016 to \$1,298.1 million by 2026, reflecting an average annual growth rate of 1.3 percent. Total Parkway toll revenue is estimated to increase from \$426.1 million to \$469.9 million over the forecast period. This represents an average annual growth rate of 1.0 percent. Finally, total Turnpike System toll revenue is expected to increase from \$1,570.7 million in 2016 to \$1,768.0 million by 2026. The average annual overall forecasted revenue growth is approximately 1.2 percent.

As noted in Table 10 footnote 4, the impacts of the Delaware River Turnpike Bridge (DRTB) closure are included in the estimated 2017 Turnpike traffic and toll revenue forecasts. The DRTB was closed on January 20, 2017 due to a fracture in one of the structural support beams. NJTA staff have announced that the DRTB will be fully operational by Monday, March 13, 2017. CDM Smith analyzed the impact on Turnpike traffic and revenue during the closure and estimated that losses over this period amounted to 1.3 million transactions and \$8.0 million in toll revenue. Thus, absent the DRTB closure, total 2017 Turnpike traffic and revenue would have been 257.6 million and \$1,145.3 million, respectively.

Compared to the previous forecasts developed as part of the October 2015 Draw Down Letter, total actual 2016 transactions are about 2.1 percent greater than the forecast. Lower than expected gas prices, steady economic growth, rising consumer confidence and mild winters are the main factors influencing the better than forecast performance of the NJTA facilities. There is a slight spike in 2017, with the new traffic forecast exceeding the 2015 forecast by 2.3 percent. This is attributable to new assumptions regarding the Pulaski Skyway construction schedule. In the October 2015 Draw Down Letter, the positive impact on the Turnpike from Pulaski Skyway construction was assumed to end in December 2016. Construction has now been extended through the end of third quarter of 2017, resulting in continued positive traffic impacts in 2017 that were not assumed in the October 2015 Draw Down Letter. As noted above, the October 2015 Draw Down Letter growth rates were used for 2018 and beyond. As such, the net impact of all adjustments remains relatively

constant at between 1.3 and 1.6 percent between 2018 and 2024. The slightly higher differences in 2020 and 2024 are due to adjustments related to leap year that were not included in the 2015 forecast.

The same general trend is observed on the revenue side. Total actual toll revenue exceeded the 2015 forecast by 1.1 percent in 2016. Forecasted revenue in 2017 has been raised by 1.7 percent compared to the 2015 Study forecast. Again, the higher positive impact is related to the delayed Pulaski Skyway reopening. In 2018 and beyond the new forecast ranges from 0.8 to 1.1 percent greater than the 2015 Study forecast.

### **Disclaimer**

CDM Smith used currently-accepted professional practices and procedures in the development of the traffic and revenue estimates in this report. However, as with any forecast, it should be understood that differences between forecasted and actual results may occur, as caused by events and circumstances beyond the control of the forecasters. In formulating the estimates, CDM Smith reasonably relied upon the accuracy and completeness of information provided (both written and oral) by the New Jersey Turnpike Authority and other local, state, and federal agencies, as well as private parties. CDM Smith also relied upon the reasonable assurances of independent parties and is not aware of any material facts that would make such information misleading.

CDM Smith made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue estimates that must be considered as a whole; therefore, selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit of partial information extracted from this report.

All estimates and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple agencies, including the New Jersey Turnpike Authority, and some independent parties. These estimates and projections may not be indicative of actual or future values, and are therefore subject to substantial uncertainty. Future developments, economic conditions cannot be predicted with certainty, and may affect the estimates or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any estimate or projection contained within this report.

While CDM Smith believes that the projections and other forward-looking statements contained within the report are based on reasonable assumptions as of the date of the report, such forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions





Ms. Donna Manuelli

March 8, 2017

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contained within the report, as they pertain to socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

The report and its contents are intended solely for use by the New Jersey Turnpike Authority and designated parties approved by the New Jersey Turnpike Authority and CDM Smith. Any use by third-parties, other than as noted above, is expressly prohibited. In addition, any publication of the report without the express written consent of CDM Smith is prohibited.

CDM Smith is not, and has not been, a municipal advisor as defined in Federal law (the Dodd Frank Bill) to the New Jersey Turnpike Authority and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to the New Jersey Turnpike Authority with respect to the information and material contained in this report. CDM Smith is not recommending and has not recommended any action to the New Jersey Turnpike Authority. The New Jersey Turnpike Authority should discuss the information and material contained in this report with any and all internal and external advisors that it deems appropriate before acting on this information.

Sincerely,

A handwritten signature in black ink that reads "Scott A. Allaire". The signature is written in a cursive, flowing style.

Scott A. Allaire  
Vice President  
CDM Smith Inc.

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195 Church Street, Suite 7A  
New Haven, CT 06510  
tel: 203 865-2191  
fax: 203 624-0484

October 2, 2015

Ms. Donna Manuelli  
Chief Financial Officer  
New Jersey Turnpike Authority  
P.O. Box 5042  
Woodbridge, NJ 07095

Subject: 2015 New Jersey Turnpike System Draw Down Letter

Dear Ms. Manuelli:

CDM Smith was recently requested to provide updated traffic and toll revenue forecasts for both the New Jersey Turnpike and the Garden State Parkway to the New Jersey Turnpike Authority (NJTA). CDM Smith developed and submitted the New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study (the 2014 Forecast Study) on May 1, 2014, which was a formal investment grade study to be used in support of future revenue bond issuances. Annual traffic and revenue forecasts were provided through calendar year 2024.

This 2015 Draw Down Letter provides revised short-term transaction and toll revenue forecasts through 2016, based on actual transaction and toll revenue experience and on recent trends and forecasts in motor fuel prices and gross domestic product. Forecasted growth rates beyond 2016 are unchanged from those in our prior report. An additional seventeen months of actual transaction and toll revenue experience was available for the 2015 Draw Down Letter (from April 2014 through August 2015). It is our understanding that the purpose of this 2015 Draw Down Letter is to provide NJTA with a revised set of forecasts for use in support of an upcoming bond transaction(s).

## **Monthly Transaction and Toll Revenue Trends**

### ***New Jersey Turnpike***

Traffic and toll revenue trends for the New Jersey Turnpike are presented in Tables 1 and 2 from January 2010 through August 2015. A 53 percent toll increase took effect in January 2012. As shown in Table 1, the general effect of the toll increase was a decrease in passenger car toll transactions ranging from 3.6 to 6.2 percent through July, excluding the positive growth in January and February. Passenger car growth in January 2012 amounted to 2.6 percent and 0.0 percent for commercial vehicles compared to January 2011. These outliers were largely the result of a return to normal traffic levels in January 2012 after unusually low traffic volumes in January 2011 due to





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**Table 1**  
**Historical Toll Transaction Trends By Month**  
**New Jersey Turnpike**  
**(Thousands of Transactions)**

Passenger Car Transactions										
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change
January	15,661	(7.1)	14,550 (2)	2.6	14,935 (5)	(0.5)	14,855	(4.4)	14,202 (2)	4.9
February	13,084 (2)	10.5	14,454 (2)	1.3	14,649 (1)	(8.4)	13,414 (2)	(4.3)	12,832 (2)	12.0
March	17,360	(1.4)	17,114	(4.5)	16,337	(1.9)	16,022	0.6	16,119 (8)	5.4
April	17,363	(1.2)	17,153	(4.8)	16,323	(0.7)	16,210	4.9	17,008 (9)	6.5
May	18,193	(2.2)	17,798	(3.6)	17,164	(0.3)	17,109	6.0	18,136 (9)	5.2
June	18,183	(1.5)	17,919	(4.3)	17,143	(1.6)	16,874	7.0	18,053 (9)	4.4
July	18,612	(1.6)	18,317 (3)	(6.2)	17,182	1.3	17,409	4.8	18,251 (9)	7.9
August	18,734	(5.5)	17,711 (4)	0.1	17,734	2.4	18,151	2.5	18,608 (9)	6.1
September	17,211	(0.0)	17,206	(7.0)	16,003	2.3	16,369	5.0	17,183 (9)	
October	18,006	(2.9)	17,475	(10.7)	15,609 (6)	10.0	17,172	4.5	17,950 (9)	
November	16,956	(0.3)	16,904	(8.1)	15,538	2.2	15,887	5.3	16,736 (9)	
December	16,324 (2)	4.3	17,026	(6.7)	15,891	(1.0)	15,736	9.7	17,270 (9)	
TOTAL	205,687	(1.0)	203,627	(4.5)	194,508	0.4	195,208	3.7	202,348	
Subtotal Jan. - Aug.	137,190	(1.6)	135,016	(2.6)	131,467	(1.1)	130,044	2.4	133,209	6.4
141,735										
Commercial Vehicle Transactions (7)										
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change
January	2,210	1.3	2,239 (2)	(0.0)	2,238 (5)	7.9	2,415	(4.0)	2,318 (2)	(0.9)
February	2,002 (2)	8.3	2,169 (2)	0.6	2,181 (1)	(1.5)	2,148 (2)	(4.2)	2,057 (2)	7.7
March	2,578	0.1	2,581	(6.5)	2,412	(1.7)	2,371	3.7	2,458 (8)	5.5
April	2,495	(4.4)	2,396	(4.4)	2,341	6.5	2,492	1.8	2,536	4.2
May	2,471	1.9	2,519	(0.4)	2,509	2.3	2,567	0.7	2,586	2.1
June	2,651	3.4	2,742	(10.5)	2,453	(3.0)	2,379	8.4	2,578	8.3
July	2,541	(4.5)	2,427	1.4	2,462	3.7	2,554	3.5	2,644	5.5
August	2,613	0.3	2,620 (4)	(2.2)	2,562	1.2	2,593	(2.7)	2,522	5.2
September	2,490	1.2	2,521	(9.6)	2,279	6.6	2,430	6.0	2,577	
October	2,566	(1.4)	2,529	(6.6)	2,363 (6)	13.8	2,688	1.9	2,739	
November	2,436	0.7	2,453	3.3	2,534	(8.9)	2,308	1.9	2,351	
December	2,340 (2)	2.8	2,405	(4.4)	2,299	1.5	2,333	8.4	2,530	
TOTAL	29,393	0.7	29,601	(3.3)	28,633	2.3	29,278	2.1	29,896	
Subtotal Jan. - Aug.	19,561	0.7	19,693	(2.7)	19,158	1.9	19,519	0.9	19,699	4.7
20,623										
Total Transactions										
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change
January	17,871	(6.1)	16,789 (2)	2.3	17,173 (5)	0.6	17,270	(4.3)	16,520 (2)	4.1
February	15,086 (2)	10.2	16,623 (2)	1.2	16,830 (1)	(7.5)	15,562 (2)	(4.3)	14,889 (2)	11.4
March	19,938	(1.2)	19,695	(4.8)	18,749	(1.9)	18,393	1.0	18,577 (8)	5.4
April	19,858	(1.6)	19,549	(4.5)	18,664	0.2	18,702	4.5	19,544 (9)	6.2
May	20,664	(1.7)	20,317	(3.2)	19,673	0.0	19,676	5.3	20,722 (9)	4.8
June	20,834	(0.8)	20,661	(5.2)	19,596	(1.8)	19,253	7.2	20,631 (9)	4.9
July	21,153	(1.9)	20,744 (3)	(5.3)	19,644	1.6	19,963	4.7	20,895 (9)	7.6
August	21,347	(4.8)	20,331 (4)	(0.2)	20,296	2.2	20,744	1.9	21,130 (9)	6.0
September	19,701	0.1	19,727	(7.3)	18,282	2.8	18,799	5.1	19,760 (9)	
October	20,572	(2.8)	20,004	(10.2)	17,972 (6)	10.5	19,860	4.2	20,689 (9)	
November	19,392	(0.2)	19,357	(6.6)	18,072	0.7	18,195	4.9	19,087 (9)	
December	18,664 (2)	4.1	19,431	(6.4)	18,190	(0.7)	18,069		19,800 (9)	
TOTAL	235,080	(0.8)	233,228	(4.3)	223,141	0.6	224,486	3.5	232,244	
Subtotal Jan. - Aug.	156,751	(1.3)	154,709	(2.6)	150,625	(0.7)	149,563	2.2	152,908	6.2
162,358										

(1) Leap year - February had 29 days.

(2) Severe winter weather events.

(3) On July 1, 2011, the off-peak discount for passenger cars with non-NJ E-ZPass was eliminated, increasing the rates by 33%.

(4) Hurricane Irene.

(5) A 53% toll increase was implemented on January 1, 2012.

(6) Superstorm Sandy, October 29-30, 2012.

(7) Consists of Classes 2 through B3.

(8) Abnormally cold weather.

(9) Construction on the Pulaski Skyway positively impacted passenger car traffic on the Turnpike.

Source: NJTA

severe snow storms. February 2012 growth was also slightly positive for both passenger cars and commercial vehicles. This was the result of the extra leap day in February 2012.

Two hurricane events impacted traffic growth between 2011 and 2012. Hurricane Irene occurred in August 2011. This had an abnormally negative impact on traffic volumes in 2011, thus growth in August 2012 shows a recovery from those depressed levels. As a result, passenger car growth in August 2012 was actually a positive 0.1 percent and commercial vehicles decreased by only 2.2 percent despite the 53 percent toll increase.

Overall transactions on the New Jersey Turnpike were up slightly in 2013 compared to 2012, mostly due to commercial vehicle growth and Hurricane Sandy recovery. February 2013 was greatly affected by severe winter weather, which contributed to keep year to year growth to a modest 0.6 percent.

Passenger car transactions showed positive growth in all months of 2014 except for January and February which were affected by winter weather events. Year over year growth for 2014 was 3.7 percent for passenger cars, and 2.1 percent for commercial vehicles, netting 3.5 percent overall growth for 2014.

Year to date 2015 transactions have increased 6.2 percent overall, with passenger car transactions up 6.4 percent and commercial transactions up 4.7 percent. This strong growth has brought the January through August transactions totals to the highest levels they've been since before 2010. It is important to note that a partial driver of this 2014 and 2015 growth has been due to the closure of the northbound lane of the Pulaski Skyway. The closure, beginning April 2014, has diverted a large portion of the Pulaski Skyway traffic to the New Jersey Turnpike. The Pulaski Skyway closure will be addressed in more detail later in this report.

Table 2 shows the corresponding monthly toll revenue growth for the Turnpike, taking into account the above mentioned toll increase, leap year, and weather events. As shown, passenger car revenue growth in 2014 grew 3.3 percent from 2013, despite the winter storms in January and February. December had the strongest year over year growth at 8.7 percent. Year to date 2015 passenger car revenue growth is 7.2 percent.

Commercial vehicle monthly revenue growth ranged from a low of negative 4.7 percent in February 2014 to a high of 9.6 percent in December 2014 compared to the same months in the prior year. Year to date 2015 revenue figures for commercial vehicles closely match those of passenger vehicles at 7.1 percent growth.

Total 2013 revenue grew 1.5 percent over the previous year, followed by 3.1 percent growth in 2014, maintaining the positive growth trend since the toll increase in 2012. The 8 month year to



Ms. Donna Manuelli  
October 2, 2015  
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**Table 2**  
**Historical Gross Toll Revenue Trends By Month**  
**New Jersey Turnpike**  
**(Thousands of Dollars)**

<b>Passenger Car Toll Revenue</b>											
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015
January	\$33,391	(8.8)	\$30,466 (2)	62.8	\$49,592 (5)	(0.7)	\$49,246	(4.9)	\$46,857 (2)	5.9	\$49,627 (2,9)
February	27,216 (2)	10.6	30,104 (2)	61.1	48,486 (1)	(9.0)	44,132 (2)	(4.5)	42,128 (2)	11.6	46,995 (2,9)
March	36,534	(3.0)	35,424	53.8	54,497	0.9	54,997	(1.7)	54,042 (8)	4.7	56,593 (2,9)
April	37,626	(1.3)	37,125	51.9	56,384	(2.2)	55,132	6.1	58,468 (9)	7.1	62,592 (9)
May	40,149	(4.4)	38,384	54.1	59,139	0.4	59,351	5.3	62,514 (9)	7.4	67,110 (9)
June	39,465	(2.4)	38,518	55.1	59,755	(0.7)	59,327	5.2	62,389 (9)	4.7	65,346 (9)
July	42,160	2.2	43,075 (3)	43.7	61,901	0.6	62,242	3.7	64,569 (9)	10.0	71,042 (9)
August	42,497	(3.9)	40,846 (4)	55.8	63,656	2.8	65,468	3.7	67,897 (9)	6.7	72,439 (9)
September	36,979	3.4	38,220	43.9	55,002	1.8	55,977	4.0	58,214 (9)		
October	38,734	0.7	38,997	33.2	51,928 (6)	10.7	57,502	5.0	60,366 (9)		
November	36,450	4.1	37,929	35.8	51,526	6.4	54,808	6.4	58,294 (9)		
December	34,844 (2)	10.1	38,346	46.4	56,121	(2.6)	54,646	8.7	59,390 (9)		
TOTAL	\$446,045	0.3	\$447,434	49.3	\$667,987	0.7	\$672,828	3.3	\$695,128		\$491,744
Subtotal	\$299,038	(1.7)	\$293,942	54.3	\$453,410	(0.8)	\$449,895	2.0	\$458,864	7.2	\$491,744
Jan. - Aug.											
<b>Commercial Vehicle Toll Revenue (7)</b>											
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015
January	\$17,144	0.9	\$17,302 (2)	46.9	\$25,415 (5)	4.9	\$26,662	(1.7)	\$26,216 (2)	1.2	\$26,519 (2)
February	15,634 (2)	6.4	16,630 (2)	49.0	24,783 (1)	(1.6)	24,384 (2)	(4.7)	23,232 (2)	10.3	25,619 (2)
March	19,975	(1.6)	19,656	36.9	26,917	0.3	26,989	3.6	27,952 (8)	5.5	29,502 (2)
April	19,403	(3.7)	18,683	34.4	25,103	16.2	29,159	(0.5)	29,012	6.2	30,799
May	19,328	1.3	19,574	46.5	28,679	2.0	29,243	0.4	29,352	6.1	31,136
June	20,501	(2.0)	20,085	44.0	28,919	(6.6)	26,996	7.8	29,112	9.9	31,995
July	19,598	(7.2)	18,179	58.4	28,790	(0.5)	28,641	2.7	29,417	8.9	32,035
August	20,052	(1.2)	19,812 (4)	49.6	29,641	(0.9)	29,367	(3.9)	28,208	8.7	30,650
September	19,551	(1.1)	19,332	33.9	25,892	9.4	28,313	6.2	30,068		
October	19,642	0.8	19,803	31.4	26,019 (6)	16.8	30,403	8.1	32,867		
November	18,963	(1.4)	18,695	47.4	27,555	(1.4)	27,164	3.3	28,062		
December	18,057 (2)	(0.5)	17,965	46.5	26,320	1.0	26,571	9.6	29,117		
TOTAL	\$227,848	(0.9)	\$225,716	43.6	\$324,033	3.0	\$333,892	2.6	\$342,615		\$238,255
Subtotal	\$151,635	(1.1)	\$149,921	45.6	\$218,247	1.5	\$221,441	0.5	\$222,501	7.1	\$238,255
Jan. - Aug.											
<b>Total Toll Revenue</b>											
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015
January	\$50,535	(5.5)	\$47,768 (2)	57.0	\$75,007 (5)	1.2	\$75,908	(3.7)	\$73,073 (2)	4.2	\$76,146 (2,9)
February	42,850 (2)	9.1	46,734 (2)	56.8	73,269 (1)	(6.5)	68,516 (2)	(4.6)	65,360 (2)	11.1	72,614 (2,9)
March	56,509	(2.5)	55,080	47.8	81,414	0.7	81,986	0.0	81,994 (8)	5.0	86,095 (2,9)
April	57,029	(2.1)	55,808	46.0	81,487	3.4	84,291	3.8	87,480 (9)	6.8	93,391 (9)
May	59,477	(2.6)	57,958	51.5	87,818	0.9	88,594	3.7	91,866 (9)	6.9	98,246 (9)
June	59,966	(2.3)	58,603	51.3	88,674	(2.7)	86,323	6.0	91,501 (9)	6.4	97,341 (9)
July	61,758	(0.8)	61,254 (3)	48.1	90,691	0.2	90,883	3.4	93,986 (9)	9.7	103,077 (9)
August	62,549	(3.0)	60,658 (4)	53.8	93,297	1.6	94,835	1.3	96,105 (9)	7.3	103,089 (9)
September	56,530	1.8	57,552	40.6	80,894	4.2	84,290	4.7	88,282 (9)		
October	58,376	0.7	58,800	32.6	77,947 (6)	12.8	87,905	6.1	93,233 (9)		
November	55,413	2.2	56,624	39.7	79,081	3.7	81,972	5.3	86,356 (9)		
December	52,901 (2)	6.4	56,311	46.4	82,441	(1.5)	81,217		88,507 (9)		
TOTAL	\$673,893	(0.1)	\$673,150	47.4	\$992,020	1.5	\$1,006,720	3.1	\$1,037,743		\$729,999
Subtotal	\$450,673	(1.5)	\$443,863	51.3	\$671,657	(0.0)	\$671,336	1.5	\$681,365	7.1	\$729,999
Jan. - Aug.											

(1) Leap year - February had 29 days.

(2) Severe winter weather events.

(3) On July 1, 2011, the off-peak discount for passenger cars with non-NJ E-ZPass was eliminated, increasing the rates by 33%.

(4) Hurricane Irene.

(5) A 53% toll increase was implemented on January 1, 2012.

(6) Superstorm Sandy, October 29-30, 2012.

(7) Consists of Classes 2 through B3.

(8) Abnormally cold weather.

(9) Construction on the Pulaski Skyway positively impacted passenger car traffic on the Turnpike.

Source: NJTA

date total toll revenue figures show a 7.1 percent increase in revenue, with February showing the strongest growth due to recovery from strong winter weather conditions during the previous two years.

### ***Garden State Parkway***

Tables 3 and 4 show monthly traffic and toll revenue trends for the Garden State Parkway from January 2010 through August 2015. In 2012, the Parkway shows similar patterns as the Turnpike regarding impacts due to the January 2012 toll increase, weather, and leap year.

While the Turnpike experienced a 53 percent toll increase in January 2012, Parkway toll rates increased by 50 percent. As a result, the impact of the toll increase on Parkway traffic appears to be slightly less than on the Turnpike, particularly for passenger cars. As shown in Table 3, passenger car transactions decreased by 3.1 percent year over year in 2012. Since then, passenger cars on the Parkway have remained largely stable with small growth amounting to 0.7 percent in 2013 and 0.4 percent in 2014. For both of these years, the majority of the growth happened in the second half of the year since both 2013 and 2014 had some severe winter weather events in the early months. Year to date 2015 passenger car transactions show 1.7 percent growth, including a strong February recovery from previous years.

Commercial vehicle trends on the Parkway have not been very similar to passenger car trends. After the toll increase in 2012, the Parkway only experienced a reduction of 0.2 percent in tolled commercial vehicle transactions compared with 3.1 percent of passenger car transactions for the same period. In 2013, commercial vehicle transactions actually grew by 4.8 percent, with the first half of the year posting the strongest growth. The last 3 months of 2013 were turbulent because of the Hurricane that affected those months in the previous year. Commercial vehicle transactions fell slightly in 2014 by 0.8 percent, with the weakest months being January, April and May. Year to date transactions for commercial vehicles show a more modest growth of 1.2 percent despite heavy losses totaling 6.6 percent in January.

Total transactions were reduced by 3.1 percent in 2012 after the toll increase, but have since recovered by 0.8 percent in 2013, 0.4 percent in 2014, and year to date transactions in 2015 continue the growth trend, showing 1.7 percent increased transactions over the same 8 month period in the prior year.

It should also be noted that the closure of several casinos in Atlantic City during 2014 also had a negative effect on Parkway traffic. The year 2014 was a year of transformation in Atlantic City's casino industry. In January 2014, the Atlantic Club permanently closed, followed by the Showboat and Revel in August and September, respectively. Trump Plaza closed later in the month of September. These four casino closings undoubtedly directly affected traffic on the Parkway.

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**Table 3**  
**Historical Toll Transaction Trends By Month**  
**Garden State Parkway**  
**(Thousands of Transactions)**

Passenger Car Transactions											
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014 (8)	Percent Change	2015
January	29,214	(10.6)	26,113 (2)	2.9	26,862 (4)	1.9	27,372	(6.2)	25,676 (2,8)	0.6	25,831 (2)
February	24,219 (2)	8.2	26,209 (2)	1.6	26,617 (1)	(7.1)	24,733 (2)	(4.7)	23,563 (2)	4.5	24,629 (2)
March	30,864	(0.8)	30,602	(3.6)	29,498	(1.5)	29,064	(0.1)	29,022 (7)	(0.8)	28,779 (2)
April	31,241	(2.8)	30,367	(3.1)	29,412	1.0	29,719	1.2	30,073	1.5	30,531
May	33,271	(1.6)	32,746	(2.1)	32,053	(0.2)	31,979	2.1	32,642	1.6	33,180
June	34,043	(0.6)	33,847	(2.3)	33,083	(2.2)	32,355	3.0	33,336	0.1	33,376
July	36,498	0.1	36,542	(5.6)	34,505	0.3	34,601	1.8	35,228	3.4	36,442
August	36,342	(6.3)	34,059 (3)	3.6	35,285	0.4	35,439	1.2	35,878 (8)	2.7	36,838
September	31,995	(0.4)	31,852	(5.2)	30,182	1.9	30,764	1.1	31,100 (8)		
October	31,818	(2.3)	31,090	(9.2)	28,223 (5)	10.3	31,126	0.1	31,155		
November	29,834	(0.9)	29,573	(8.1)	27,181	5.6	28,710	(1.3)	28,339		
December	28,380 (2)	5.9	30,057	(5.4)	28,432	(1.5)	28,002	4.7	29,326		
TOTAL	377,719	(1.2)	373,057	(3.1)	361,333	0.7	363,864	0.4	365,338		249,606
Subtotal Jan. - Aug.	255,692	(2.0)	250,485	(1.3)	247,315	(0.8)	245,262	0.1	245,418	1.7	249,606
Commercial Vehicle Transactions (6)											
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014 (8)	Percent Change	2015
January	323	(1.5)	318 (2)	(0.3)	317 (4)	14.8	364	(4.9)	346 (2,8)	(6.6)	323 (2)
February	306 (2)	(1.6)	301 (2)	4.3	314 (1)	4.8	329 (2)	(1.2)	325 (2)	(0.9)	322 (2)
March	365	5.8	386	(2.8)	375	(2.1)	367	(1.4)	362 (7)	5.2	381 (2)
April	408	(3.2)	395	(1.3)	390	10.8	432	(4.2)	414	3.9	430
May	437	5.3	460	(1.7)	452	11.1	502	(4.4)	480	0.4	482
June	452	4.9	474	(6.1)	445	5.6	470	2.3	481	2.1	491
July	461	3.5	477	(1.0)	472	6.6	503	0.8	507	1.4	514
August	447	1.3	453 (3)	4.0	471	3.6	488	(2.3)	477 (8)	2.5	489
September	410	2.7	421	(5.0)	400	7.0	428	3.3	442 (8)		
October	421	0.7	424	(7.8)	391 (5)	14.8	449	1.6	456		
November	380	0.0	380	13.4	431	(12.3)	378	(3.2)	366		
December	346 (2)	(0.3)	345	6.1	366	(6.0)	344	3.8	357		
TOTAL	4,756	1.6	4,834	(0.2)	4,824	4.8	5,054	(0.8)	5,013		3,432
Subtotal Jan. - Aug.	3,199	2.0	3,264	(0.9)	3,236	6.8	3,455	(1.8)	3,392	1.2	3,432
Total Transactions											
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014 (8)	Percent Change	2015
January	29,537	(10.5)	26,431 (2)	2.8	27,179 (4)	2.0	27,736	(6.2)	26,022 (2,8)	0.5	26,154 (2)
February	24,525 (2)	8.1	26,510 (2)	1.6	26,931 (1)	(6.9)	25,062 (2)	(4.7)	23,888 (2)	4.4	24,951 (2)
March	31,229	(0.8)	30,988	(3.6)	29,873	(1.5)	29,431	(0.2)	29,384 (7)	(0.8)	29,160 (2)
April	31,649	(2.8)	30,762	(3.1)	29,802	1.2	30,151	1.1	30,487	1.6	30,961
May	33,708	(1.5)	33,206	(2.1)	32,505	(0.1)	32,481	2.0	33,122	1.6	33,662
June	34,495	(0.5)	34,321	(2.3)	33,528	(2.1)	32,825	3.0	33,817	0.1	33,867
July	36,959	0.2	37,019	(5.5)	34,977	0.4	35,104	1.8	35,735	3.4	36,956
August	36,789	(6.2)	34,512 (3)	3.6	35,756	0.5	35,927	1.2	36,355 (8)	2.7	37,327
September	32,405	(0.4)	32,273	(5.2)	30,582	2.0	31,192	1.1	31,542 (8)		
October	32,239	(2.2)	31,514	(9.2)	28,614 (5)	10.3	31,575	0.1	31,611		
November	30,214	(0.9)	29,953	(7.8)	27,612	5.3	29,088	(1.3)	28,705		
December	28,726 (2)	5.8	30,402	(5.3)	28,798	(1.6)	28,346	4.7	29,683		
TOTAL	382,475	(1.2)	377,891	(3.1)	366,157	0.8	368,918	0.4	370,351		253,038
Subtotal Jan. - Aug.	258,891	(2.0)	253,749	(1.3)	250,551	(0.7)	248,717	0.0	248,810	1.7	253,038

(1) Leap year - February had 29 days.

(2) Severe winter weather events.

(3) Hurricane Irene.

(4) A 50% toll increase was implemented on January 1, 2012.

(5) Superstorm Sandy, October 29-30, 2012.

(6) Consists of Classes 2 through B3. Heavy trucks, registered as 10,000 lbs or more (6 tires or 3-or-more-axes), are prohibited north of Interchange 105.

(7) Abnormally cold weather.

(8) Casino closures: Atlantic Club in January, Showboat in August, and Revel and Trump Plaza in September.

Source: NJTA

Table 4 provides similar monthly trends for Parkway toll revenue. As shown, 2012 total passenger car toll revenue increased by 45.4 percent. Passenger car revenues in 2013 and 2014 increased by 1.4 and 0.6 percent, respectively. Year to date 2015 passenger car revenue is up 1.7 percent over the same 8 month period in the previous year. Commercial vehicle toll revenue increased by 53.0 percent in 2012, followed by a 0.5 percent increase and a 9.1 percent decrease in 2013 and 2014, respectively. Year to date 2015 revenue for commercial vehicles is up 3.1 percent. Total combined Parkway toll revenue increased by 45.7 percent during 2012. A 1.3 percent increase in 2013 followed by a 0.2 percent increase in 2014 continued the increase in revenue for the Parkway facility since the toll increase. Year to date combined revenue for the Parkway grew by 1.8 percent over the same 8 month period in the previous year.

As footnoted in Table 4, the manner in which NJTA accounted for toll discounts changed in November 2013. This resulted in a slightly higher percentage of the discounts being attributed to commercial vehicles and a decreased percentage distribution to passenger cars. Given the relatively low volume of commercial activity on the Parkway, this had a rather dramatic impact on their revenue when compared to the same period in the previous year. The corresponding positive impact on passenger car revenue during this period is not noticeable since it represented a very small proportion of the passenger car revenue base.

#### ***NJTA System Total***

Table 5 shows monthly toll revenue trends for both of the Authority's roadways from January 2010 through August 2015. As shown, Turnpike toll revenue totals increased by 3.1 percent in 2014, and 7.1 percent 2015 compared to the same 8 month period in the previous year. Total toll revenue on the Parkway increased by 0.2 percent in 2014. Year to date 2015 revenue is up 1.8 percent over the same 8 month period in 2014. Total combined toll revenue increased by 2.3 percent in 2014. Year to date 2015 revenue through August has grown by 5.6 percent system wide.

#### **Forecast Versus Actual Experience**

The 2014 Traffic and Revenue Forecast Study included actual experience through March 2014. The purpose of this section is to review actual experience through August 2015 (the latest month with actual data available). Thus, the comparison period is comprised of seventeen months. Tables 6 through 8 provide this comparison for the Turnpike, the Parkway and the total NJTA system, respectively.

It should be emphasized that considerable variations may exist between actual and forecast values on a monthly basis. Weather events, accidents, and other variables can impact day to day and month to month traffic in ways that would be difficult to forecast with precision. As a result of these variations, actual traffic and revenue can be higher or lower than estimates, sometimes in the

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**Table 4**  
**Historical Gross Toll Revenue Trends By Month**  
**Garden State Parkway**  
**(Thousands of Dollars)**

<b>Passenger Car Toll Revenue</b>											
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014 (9)	Percent Change	2015
January	\$19,750	(7.1)	\$18,353 (2)	53.5	\$28,181 (4)	2.6	\$28,919	(5.4)	\$27,357 (2,9)	0.1	\$27,396 (2)
February	16,360 (2)	12.4	18,383 (2)	52.5	28,025 (1)	(6.8)	26,127 (2)	(4.0)	25,078 (2)	3.8	26,034 (2)
March	21,748	(1.3)	21,474	43.9	30,902	(0.1)	30,856	0.1	30,876 (7)	(0.7)	30,656 (2)
April	22,059	(2.7)	21,454	46.2	31,374	0.4	31,496	2.0	32,137	1.5	32,625
May	23,586	(2.3)	23,043	48.7	34,261	(0.4)	34,132	2.4	34,961	2.1	35,690
June	24,631	(2.4)	24,036	47.7	35,513	(2.1)	34,762	3.3	35,909	0.3	36,024
July	26,385	(0.5)	26,252	42.2	37,343	0.8	37,650	1.6	38,267	3.4	39,568
August	26,445	(6.7)	24,660 (3)	55.5	38,345	1.1	38,748	1.0	39,125 (9)	2.8	40,207
September	23,002	(1.5)	22,664	43.8	32,587	2.4	33,360	1.3	33,788 (9)		
October	22,531	(1.2)	22,263	34.0	29,833 (5)	12.1	33,454	0.1	33,476		
November	21,128	(1.3)	20,843	36.1	28,367	8.8	30,872	(1.3)	30,469		
December	20,017 (2)	7.0	21,417	41.2	30,245	(1.1)	29,921	4.7	31,335		
TOTAL	\$267,642	(1.0)	\$264,842	45.4	\$384,976	1.4	\$390,297	0.6	\$392,778		\$268,200
Subtotal Jan. - Aug.	\$180,964	(1.8)	\$177,655	48.6	\$263,944	(0.5)	\$262,690	0.4	\$263,710	1.7	\$268,200

<b>Commercial Vehicle Toll Revenue (6)</b>											
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014 (9)	Percent Change	2015
January	\$697	1.1	\$705 (2)	53.2	\$1,080 (4)	12.1	\$1,211	(20.6)	\$962 (2,8,9)	2.3	\$984 (2)
February	627 (2)	7.3	673 (2)	59.1	1,071 (1)	3.0	1,103 (2)	(17.4)	911 (2,8)	3.7	945 (2)
March	810	6.8	865	47.5	1,276	(2.1)	1,249	(15.3)	1,058 (2,7,8)	(0.9)	1,048 (2)
April	907	(2.0)	889	51.3	1,345	9.8	1,477	(19.5)	1,189 (8)	9.3	1,299
May	985	3.8	1,022	53.2	1,566	10.6	1,732	(15.5)	1,463 (8)	1.2	1,480
June	1,037	3.7	1,075	44.5	1,553	4.2	1,619	(9.5)	1,465 (8)	3.8	1,520
July	1,042	4.1	1,085	55.0	1,682	4.0	1,749	(8.2)	1,605 (8)	2.4	1,644
August	1,019	1.3	1,032 (3)	61.7	1,669	2.3	1,707	(10.1)	1,534 (8,9)	3.2	1,583
September	938	1.2	949	49.4	1,418	4.7	1,485	(4.5)	1,418 (8,9)		
October	949	1.8	966	39.4	1,347 (5)	2.3	1,378	4.4	1,438 (8)		
November	853	(0.4)	850	66.5	1,415	(22.7)	1,094 (8)	1.0	1,105		
December	767 (2)	1.3	777	59.6	1,240	(24.0)	943 (8)	14.4	1,079		
TOTAL	\$10,631	2.4	\$10,888	53.0	\$16,662	0.5	\$16,747	(9.1)	\$15,227		\$10,503
Subtotal Jan. - Aug.	\$7,124	3.1	\$7,346	53.0	\$11,242	5.4	\$11,847	(14.0)	\$10,187	3.1	\$10,503

<b>Total Toll Revenue</b>											
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014 (9)	Percent Change	2015
January	\$20,447	(6.8)	\$19,058 (2)	53.5	\$29,261 (4)	3.0	\$30,130	(6.0)	\$28,319 (2,9)	0.2	\$28,380 (2)
February	16,987 (2)	12.2	19,056 (2)	52.7	29,096 (1)	(6.4)	27,230 (2)	(4.6)	25,989 (2)	3.8	26,979 (2)
March	22,558	(1.0)	22,339	44.0	32,178	(0.2)	32,105	(0.5)	31,934 (2,7)	(0.7)	31,704 (2)
April	22,966	(2.7)	22,343	46.4	32,719	0.8	32,973	1.1	33,326	1.8	33,924
May	24,571	(2.1)	24,065	48.9	35,827	0.1	35,864	1.6	36,424	2.0	37,170
June	25,668	(2.2)	25,111	47.6	37,066	(1.8)	36,381	2.7	37,374	0.5	37,544
July	27,427	(0.3)	27,337	42.8	39,025	1.0	39,399	1.2	39,872	3.4	41,212
August	27,464	(6.5)	25,692 (3)	55.7	40,014	1.1	40,455	0.5	40,659 (9)	2.8	41,790
September	23,940	(1.4)	23,613	44.0	34,005	2.5	34,845	1.0	35,206 (9)		
October	23,480	(1.1)	23,229	34.2	31,180 (5)	11.7	34,832	0.2	34,914		
November	21,981	(1.3)	21,693	37.3	29,782	7.3	31,966	(1.2)	31,574		
December	20,784 (2)	6.8	22,194	41.9	31,485	(2.0)	30,864	5.0	32,414		
TOTAL	\$278,273	(0.9)	\$275,730	45.7	\$401,638	1.3	\$407,044	0.2	\$408,005		\$278,703
Subtotal Jan. - Aug.	\$188,088	(1.6)	\$185,001	48.7	\$275,186	(0.2)	\$274,537	(0.2)	\$273,897	1.8	\$278,703

(1) Leap year - February had 29 days.

(2) Severe winter weather events.

(3) Hurricane Irene.

(4) A 50% toll increase was implemented on January 1, 2012.

(5) Superstorm Sandy, October 29-30, 2012.

(6) Consists of Classes 2 through B3. Heavy trucks, registered as 10,000 lbs or more (6 tires or 3-or-more-axes), are prohibited north of Interchange 105.

(7) Abnormally cold weather.

(8) NJTA changed its accounting for toll discounts, resulting in a slightly greater percentage of discounts attributed to commercial vehicles, and a decreased percentage attributed to passenger cars. A comparison of commercial vehicle toll revenue to the prior year is not valid. The lost revenue exhibited for the commercial vehicles was added to the car category, but due to the relatively low value of the revenue shift, the impact is not noticeable for passenger cars.

(9) Casino closures: Atlantic Club in January, Showboat in August, and Revel and Trump Plaza in September.

Source: NJTA





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**Table 5**  
**Historical Gross Toll Revenue Trends By Month**  
**Total of All Vehicle Classes**  
**(Thousands of Dollars)**

New Jersey Turnpike											
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015
January	\$50,535	(5.5)	\$47,768 (2)	57.0	\$75,007 (5)	1.2	\$75,908	(3.7)	\$73,073 (2)	4.2	\$76,146 (2,11)
February	42,850 (2)	9.1	46,734 (2)	56.8	73,269 (1)	(6.5)	68,516 (2)	(4.6)	65,360 (2)	11.1	72,614 (2,11)
March	56,509	(2.5)	55,080	47.8	81,414	0.7	81,986	0.0	81,994 (9)	5.0	86,095 (2,11)
April	57,029	(2.1)	55,808	46.0	81,487	3.4	84,291	3.8	87,480 (11)	6.8	93,391 (11)
May	59,477	(2.6)	57,958	51.5	87,818	0.9	88,594	3.7	91,866 (11)	6.9	98,246 (11)
June	59,966	(2.3)	58,603	51.3	88,674	(2.7)	86,323	6.0	91,501 (11)	6.4	97,341 (11)
July	61,758	(0.8)	61,254 (3)	48.1	90,691	0.2	90,883	3.4	93,986 (11)	9.7	103,077 (11)
August	62,549	(3.0)	60,658 (4)	53.8	93,297	1.6	94,835	1.3	96,105 (11)	7.3	103,089 (11)
September	56,530	1.8	57,552	40.6	80,894	4.2	84,290	4.7	88,282 (11)		
October	58,376	0.7	58,800	32.6	77,947 (8)	12.8	87,905	6.1	93,233 (11)		
November	55,413	2.2	56,624	39.7	79,081	3.7	81,972	5.3	86,356 (11)		
December	52,901 (2)	6.4	56,311	46.4	82,441	(1.5)	81,217	9.0	88,507 (11)		
TOTAL	\$673,893	(0.1)	\$673,150	47.4	\$992,020	1.5	\$1,006,720	3.1	\$1,037,743		\$729,999
Subtotal	\$450,673	(1.5)	\$443,863	51.3	\$671,657	(0.0)	\$671,336	1.5	\$681,365	7.1	\$729,999
Jan. - Aug.											
Garden State Parkway											
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015
January	\$20,447	(6.8)	\$19,058 (2)	53.5	\$29,261 (7)	3.0	\$30,130	(6.0)	\$28,319 (2,10)	0.2	\$28,380 (2)
February	16,987 (2,6)	12.2	19,056 (2)	52.7	29,096 (1)	(6.4)	27,230 (2)	(4.6)	25,989 (2)	3.8	26,979 (2)
March	22,558	(1.0)	22,339	44.0	32,178	(0.2)	32,105	(0.5)	31,934 (9)	(0.7)	31,704 (2)
April	22,966	(2.7)	22,343	46.4	32,719	0.8	32,973	1.1	33,326	1.8	33,924
May	24,571	(2.1)	24,065	48.9	35,827	0.1	35,864	1.6	36,424	2.0	37,170
June	25,668	(2.2)	25,111	47.6	37,066	(1.8)	36,381	2.7	37,374	0.5	37,544
July	27,427	(0.3)	27,337	42.8	39,025	1.0	39,399	1.2	39,872	3.4	41,212
August	27,464	(6.5)	25,692 (4)	55.7	40,014	1.1	40,455	0.5	40,659 (10)	2.8	41,790
September	23,940	(1.4)	23,613	44.0	34,005	2.5	34,845	1.0	35,206 (10)		
October	23,480	(1.1)	23,229	34.2	31,180 (8)	11.7	34,832	0.2	34,914		
November	21,981	(1.3)	21,693	37.3	29,782	7.3	31,966	(1.2)	31,574		
December	20,784 (2)	6.8	22,194	41.9	31,485	(2.0)	30,864	5.0	32,414		
TOTAL	\$278,273	(0.9)	\$275,730	45.7	\$401,638	1.3	\$407,044	0.2	\$408,005		\$278,703
Subtotal	\$188,088	(1.6)	\$185,001	48.7	\$275,186	(0.2)	\$274,537	(0.2)	\$273,897	1.8	\$278,703
Jan. - Aug.											
Total Toll Revenue											
Month	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014	Percent Change	2015
January	\$70,982	(5.9)	\$66,826 (2)	56.0	\$104,268 (5,7)	1.7	\$106,038	(4.4)	\$101,392 (2,10)	3.1	\$104,526 (2,11)
February	59,837 (2,6)	9.9	65,790 (2)	55.6	102,365 (1)	(6.5)	95,746 (2)	(4.6)	91,349 (2)	9.0	99,593 (2,11)
March	79,067	(2.1)	77,419	46.7	113,592	0.4	114,091	(0.1)	113,928 (9)	3.4	117,799 (2,11)
April	79,995	(2.3)	78,151	46.1	114,206	2.7	117,264	3.0	120,806 (11)	5.4	127,315 (11)
May	84,048	(2.4)	82,023	50.7	123,645	0.7	124,458	3.1	128,290 (11)	5.6	135,416 (11)
June	85,634	(2.2)	83,714	50.2	125,740	(2.4)	122,704	5.0	128,875 (11)	4.7	134,885 (11)
July	89,185	(0.7)	88,591 (3)	46.4	129,716	0.4	130,282	2.7	133,858 (11)	7.8	144,289 (11)
August	90,013	(4.1)	86,350 (4)	54.4	133,311	1.5	135,290	1.1	136,764 (11,10)	5.9	144,879 (11)
September	80,470	0.9	81,165	41.6	114,899	3.7	119,135	3.7	123,488 (11,10)		
October	81,856	0.2	82,029	33.0	109,127 (8)	12.5	122,737	4.4	128,147 (11)		
November	77,394	1.2	78,317	39.0	108,863	4.7	113,938	3.5	117,930 (11)		
December	73,685 (2)	6.5	78,505	45.1	113,926	(1.6)	112,081	7.9	120,921 (11)		
TOTAL	\$952,166	(0.3)	\$948,880	46.9	\$1,393,658	1.4	\$1,413,764	2.3	\$1,445,748		\$1,008,702
Subtotal	\$638,761	(1.5)	\$628,864	50.6	\$946,843	(0.1)	\$945,873	1.0	\$955,262	5.6	\$1,008,702
Jan. - Aug.											

(1) Leap year - February had 29 days.

(2) Severe winter weather events.

(3) On July 1, 2011, the off-peak discount for passenger cars with non-NJ E-ZPass was eliminated. Non-NJ E-Zpass off-peak rates increased by 33%.

(4) Hurricane Irene.

(5) A 53% toll increase was implemented on January 1, 2012.

(6) The Pascack Valley mainline toll plaza was converted to one-way tolling, resulting in a negative impact on total toll transactions and toll revenue.

(7) A 50% toll increase was implemented on January 1, 2012.

(8) Superstorm Sandy, October 29-30, 2012.

(9) Abnormally cold weather.

(10) Casino closures: Atlantic Club in January, Showboat in August, and Revel and Trump Plaza in September.

(11) Construction on the Pulaski Skyway positively impacted passenger car traffic on the Turnpike.

Source: NJTA

extreme, on a short term basis. While CDM Smith forecasts attempt to take as many of these factors into account as possible (when they are known and can be quantified), our forecasts are much more meaningful when considering them with a longer term perspective. As such, while the information provided in Tables 6 through 8 shows monthly variations between actual and forecast values, the more important comparison should be at the aggregate level for the entire comparison period.

Table 6 provides a comparison of actual Turnpike traffic and toll revenue to forecasted traffic and toll revenue over the seventeen month period ending in August 2015. Forecasts were developed separately for passenger cars and commercial vehicles. As shown, actual passenger car toll transactions for this period were 1.6 percent greater than estimates. Total commercial vehicle transactions were 1.2 percent above estimates. When passenger car and commercial vehicle transactions are combined, actual traffic was 1.5 percent above estimates.

Actual toll revenue experience for passenger cars over this seventeen month period exceeded CDM Smith estimates by 2.5 percent. Commercial vehicle revenue exceeded estimates by 2.3 percent. For the total Turnpike, actual revenue experience exceeded forecasts by 2.4 percent.

The overall trend is that actual traffic and revenue experience was generally close to estimates (some months slightly higher, some slightly lower) for the April through November period. Beginning in December, however, actual traffic experience began to exceed CDM Smith forecasts by a larger margin. The only exception is for the January through March period, when severe winter weather negatively impacted travel on the Turnpike. The reason for this over performance is likely related to a strengthening economy, a noticeable decrease in motor fuel prices, and increasing consumer confidence. This will be discussed in more detail later in this report.

Table 7 shows similar information for the Garden State Parkway, though comparisons are only made on a total vehicle basis since commercial vehicles make up such a small (about 1.3 percent) portion of toll transactions on the Parkway. As shown, total actual toll transactions for the seventeen month period were 0.7 percent lower than estimates. Total actual toll revenue over the same period was lower than estimates by 1.0 percent. The effects of severe winter weather in January, February, and March are evident in this table. January and February traffic and revenue are both down by an average of more than 8.0 percent compared to CDM Smith estimates. As mentioned earlier, the impact of several casino closings (which were not assumed in the 2014 Forecast Study) also had a negative impact on Parkway traffic and revenue over this forecast period.

**Table 6**  
**Comparison of Estimated and Actual Monthly Transactions and Toll Revenue**  
**New Jersey Turnpike**

		Thousands of Transactions								
		Passenger Cars			Commercial Vehicles			Total Vehicles		
		Percent			Percent			Percent		
Month	Year	Estimate (1)	Difference (2)	Actual (3)	Estimate (1)	Difference (2)	Actual (3)	Estimate (1)	Difference (2)	Actual (3)
April	2014	16,734	1.6	17,008	2,534	0.1	2,536	19,268	1.4	19,544
May	2014	17,889	1.4	18,136	2,611	(0.9)	2,586	20,499	1.1	20,722
June	2014	17,644	2.3	18,053	2,462	4.7	2,578	20,106	2.6	20,631
July	2014	18,173	0.4	18,251	2,598	1.8	2,644	20,771	0.6	20,895
August	2014	18,948	(1.8)	18,608	2,637	(4.4)	2,522	21,586	(2.1)	21,130
September	2014	17,088	0.6	17,183	2,472	4.3	2,577	19,560	1.0	19,760
October	2014	17,926	0.1	17,950	2,734	0.2	2,739	20,659	0.1	20,689
November	2014	16,585	0.9	16,736	2,447	(3.9)	2,351	19,032	0.3	19,087
December	2014	16,469	4.9	17,270	2,372	6.6	2,530	18,841	5.1	19,800
January	2015	15,592	(4.5)	14,894	2,457	(6.6)	2,296	18,049	(4.8)	17,190
February	2015	14,857	(3.3)	14,371	2,303	(3.8)	2,216	17,161	(3.3)	16,587
March	2015	16,997	(0.0)	16,990	2,500	3.7	2,593	19,497	0.4	19,583
April	2015	17,285	4.8	18,108	2,577	2.5	2,642	19,862	4.5	20,750
May	2015	18,244	4.5	19,072	2,655	(0.5)	2,641	20,898	3.9	21,713
June	2015	17,993	4.8	18,856	2,504	11.5	2,793	20,497	5.6	21,649
July	2015	18,534	6.3	19,696	2,642	5.6	2,789	21,176	6.2	22,485
August	2015	19,324	2.2	19,748	2,682	(1.1)	2,653	22,006	1.8	22,401
Total		296,283	1.6	300,930	43,186	1.2	43,686	339,469	1.5	344,616

		Gross Toll Revenue (Thousands of Dollars)								
		Passenger Cars			Commercial Vehicles			Total Vehicles		
		Percent			Percent			Percent		
Month	Year	Estimate (1)	Difference (2)	Actual (3)	Estimate (1)	Difference (2)	Actual (3)	Estimate (1)	Difference (2)	Actual (3)
April	2014	\$56,629	3.2	\$58,468	\$29,577	(1.9)	\$29,012	\$86,206	1.5	\$87,480
May	2014	61,499	1.7	62,514	29,659	(1.0)	29,352	91,158	0.8	91,866
June	2014	61,461	1.5	62,389	27,841	4.6	29,112	89,302	2.5	91,501
July	2014	64,342	0.4	64,569	29,022	1.4	29,417	93,364	0.7	93,986
August	2014	67,502	0.6	67,897	29,776	(5.3)	28,208	97,277	(1.2)	96,105
September	2014	57,937	0.5	58,214	28,723	4.7	30,068	86,659	1.9	88,282
October	2014	59,552	1.4	60,366	30,835	6.6	32,867	90,387	3.1	93,233
November	2014	56,723	2.8	58,294	28,676	(2.1)	28,062	85,399	1.1	86,356
December	2014	56,671	4.8	59,390	26,942	8.1	29,117	83,613	5.9	88,507
January	2015	51,317	(3.3)	49,627	27,851	(4.8)	26,519	79,168	(3.8)	76,146
February	2015	48,693	(3.5)	46,995	26,058	(1.7)	25,619	74,751	(2.9)	72,614
March	2015	56,838	(0.4)	56,593	28,471	3.6	29,502	85,309	0.9	86,095
April	2015	58,533	6.9	62,592	30,138	2.2	30,799	88,672	5.3	93,391
May	2015	62,973	6.6	67,110	30,220	3.0	31,136	93,193	5.4	98,246
June	2015	62,935	3.8	65,346	28,350	12.9	31,995	91,285	6.6	97,341
July	2015	65,874	7.8	71,042	29,552	8.4	32,035	95,427	8.0	103,077
August	2015	68,975	5.0	72,439	30,332	1.0	30,650	99,307	3.8	103,089
Total		\$1,018,454	2.5	\$1,043,845	\$492,023	2.3	\$503,470	\$1,510,477	2.4	\$1,547,315

(1) Estimates were developed by CDM Smith and presented to the New Jersey Turnpike Authority in the report titled *New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study* dated May 2014.

(2) The actual experience is greater or less than the CDM Smith estimate by this percent.

(3) Actual data provided by the New Jersey Turnpike Authority.

**Table 7**  
**Comparison of Estimated and Actual Monthly Transactions and Toll Revenue**  
**Garden State Parkway**

Month	Year	Thousands of Transactions			Gross Toll Revenue (Thousands of Dollars)		
		Estimate (1)	Percent Difference (2)	Actual (3)	Estimate (1)	Percent Difference (2)	Actual (3)
April	2014	30,486	0.0	30,487	\$33,395	(0.2)	\$33,326
May	2014	32,842	0.9	33,122	36,281	0.4	36,424
June	2014	33,810	0.0	33,817	37,489	(0.3)	37,374
July	2014	35,807	(0.2)	35,735	40,202	(0.8)	39,872
August	2014	36,326	0.1	36,355	40,918	(0.6)	40,659
September	2014	31,816	(0.9)	31,542	35,563	(1.0)	35,206
October	2014	31,925	(1.0)	31,611	35,240	(0.9)	34,914
November	2014	29,410	(2.4)	28,705	32,335	(2.4)	31,574
December	2014	28,857	2.9	29,683	31,420	3.2	32,414
January	2015	28,363	(7.8)	26,154	30,883	(8.1)	28,380
February	2015	27,113	(8.0)	24,951	29,509	(8.6)	26,979
March	2015	30,118	(3.2)	29,160	32,748	(3.2)	31,704
April	2015	30,824	0.4	30,961	33,813	0.3	33,924
May	2015	33,206	1.4	33,662	36,699	1.3	37,170
June	2015	34,185	(0.9)	33,867	37,919	(1.0)	37,544
July	2015	36,204	2.1	36,956	40,660	1.4	41,212
August	2015	36,729	1.6	37,327	41,384	1.0	41,790
Total		548,021	(0.7)	544,095	\$606,457	(1.0)	\$600,466

(1) Estimates were developed by CDM Smith and presented to the New Jersey Turnpike Authority in the report titled *New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study* dated May 2014.

(2) The actual experience is greater or less than the CDM Smith estimate by this percent.

(3) Actual data provided by the New Jersey Turnpike Authority.

Table 8 shows a summary of total Turnpike, Parkway, and system wide toll revenue. As shown, actual Turnpike toll revenue was 2.4 percent greater than estimated revenue. Total Parkway toll revenue was 1.0 percent under estimates for the seventeen month period. Total system wide toll revenue was 1.5 percent greater than CDM Smith estimates. The larger negative divergences between actual and estimated gross toll revenue in January and February 2015 were due to the impacts of severe winter storms.

**Table 8**  
**Comparison of System Total: Estimated and Actual Monthly Gross Toll Revenue**

Month	Year	Gross Toll Revenue (Thousands of Dollars)								
		New Jersey Turnpike			Garden State Parkway			NJTA Total System		
		Estimate (1)	Percent Difference (2)	Actual (3)	Estimate (1)	Percent Difference (2)	Actual (3)	Estimate (1)	Percent Difference (2)	Actual (3)
April	2014	\$86,206	1.5	\$87,480	\$33,395	(0.2)	\$33,326	\$119,601	1.0	\$120,806
May	2014	91,158	0.8	91,866	36,281	0.4	36,424	127,439	0.7	128,290
June	2014	89,302	2.5	91,501	37,489	(0.3)	37,374	126,791	1.6	128,875
July	2014	93,364	0.7	93,986	40,202	(0.8)	39,872	133,566	0.2	133,858
August	2014	97,277	(1.2)	96,105	40,918	(0.6)	40,659	138,195	(1.0)	136,764
September	2014	86,659	1.9	88,282	35,563	(1.0)	35,206	122,223	1.0	123,488
October	2014	90,387	3.1	93,233	35,240	(0.9)	34,914	125,626	2.0	128,147
November	2014	85,399	1.1	86,356	32,335	(2.4)	31,574	117,734	0.2	117,930
December	2014	83,613	5.9	88,507	31,420	3.2	32,414	115,033	5.1	120,921
January	2015	79,168	(3.8)	76,146	30,883	(8.1)	28,380	110,052	(5.0)	104,526
February	2015	74,751	(2.9)	72,614	29,509	(8.6)	26,979	104,260	(4.5)	99,593
March	2015	85,309	0.9	86,095	32,748	(3.2)	31,704	118,057	(0.2)	117,799
April	2015	88,672	5.3	93,391	33,813	0.3	33,924	122,484	3.9	127,315
May	2015	93,193	5.4	98,246	36,699	1.3	37,170	129,892	4.3	135,416
June	2015	91,285	6.6	97,341	37,919	(1.0)	37,544	129,204	4.4	134,885
July	2015	95,427	8.0	103,077	40,660	1.4	41,212	136,087	6.0	144,289
August	2015	99,307	3.8	103,089	41,384	1.0	41,790	140,691	3.0	144,879
Total		\$1,510,477	2.4	\$1,547,315	\$606,457	(1.0)	\$600,466	\$2,116,934	1.5	\$2,147,781

(1) Estimates were developed by CDM Smith and presented to the New Jersey Turnpike Authority in the report titled *New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study* dated May 2014.

(2) The actual experience is greater or less than the CDM Smith estimate by this percent.

(3) Actual data provided by the New Jersey Turnpike Authority.

## Additional Factors Impacting The NJTA System Transactions and Toll Revenue

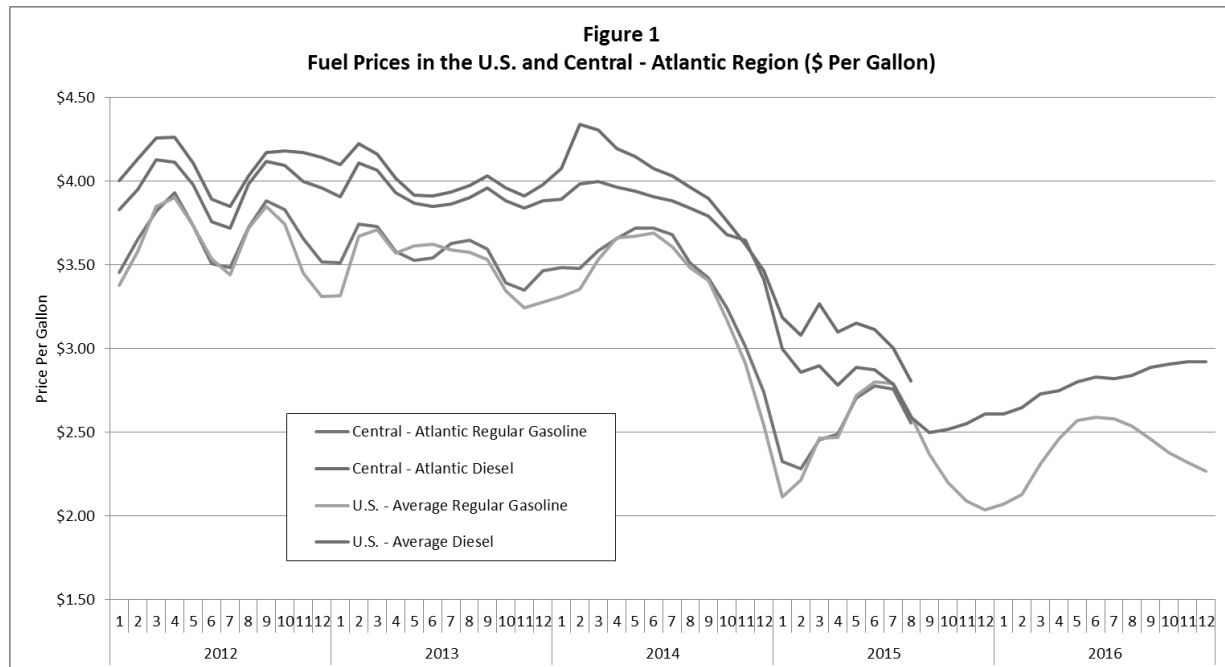
Weather, toll increases, and leap year impacts were discussed above in relation to their impacts on estimated traffic and toll revenue on the NJTA system. Additional variables that can be used to help guide forecasts and explain differences between forecast and actual data are motor fuel prices, general measures of the economy, such as those reflected by Gross Domestic Product (GDP), and consumer confidence. These are discussed below.

### Motor-Fuel Prices

Figure 1 shows the historic, average, regular-grade gasoline and all-types diesel prices for the Central-Atlantic Region and the U.S. from January 2012 through August 2015. Also shown are the

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forecast average prices for regular-grade gasoline and all-types diesel at the U.S. level from September 2015 through December 2016.



Source: U.S. Energy Information Administration

Note: Actual Data Through August 31, 2015. Retail prices are in USD for all formulations of regular gasoline and all types of diesel. Forecasts are only available for U.S. average fuel prices.

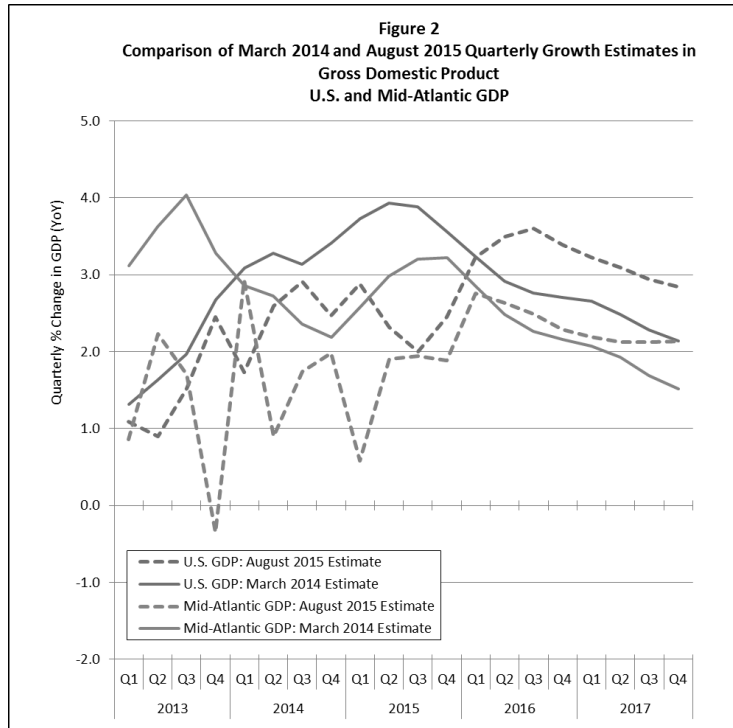
As shown, gasoline and diesel prices have followed generally similar trends throughout this period. Between January 2012 and around September 2014, both gasoline and diesel prices fluctuated within a relatively narrow range. Beginning around October 2014, however, motor fuel prices began a noticeable decline. Based on current forecasts from the U.S. Energy Information Administration, near term price forecasts are expected to remain low. This should prove positive to current trend in strong passenger car and commercial vehicle traffic growth on both the Turnpike and Parkway.

### ***Actual and Estimated Gross Domestic and Gross Regional Product***

The 2014 Forecast Study was based in part on U.S. gross domestic product (GDP) and Mid-Atlantic gross regional product (GRP) forecasts available in March 2014, both developed by Moody's Analytics. This information was a key input in developing estimated growth forecasts for the NJTA system. This section presents a comparison of the GDP and GRP information available for the 2014

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Forecast Study with updated forecasts for GDP and GRP (based on August 2015 forecasts) from Moody's Analytics.



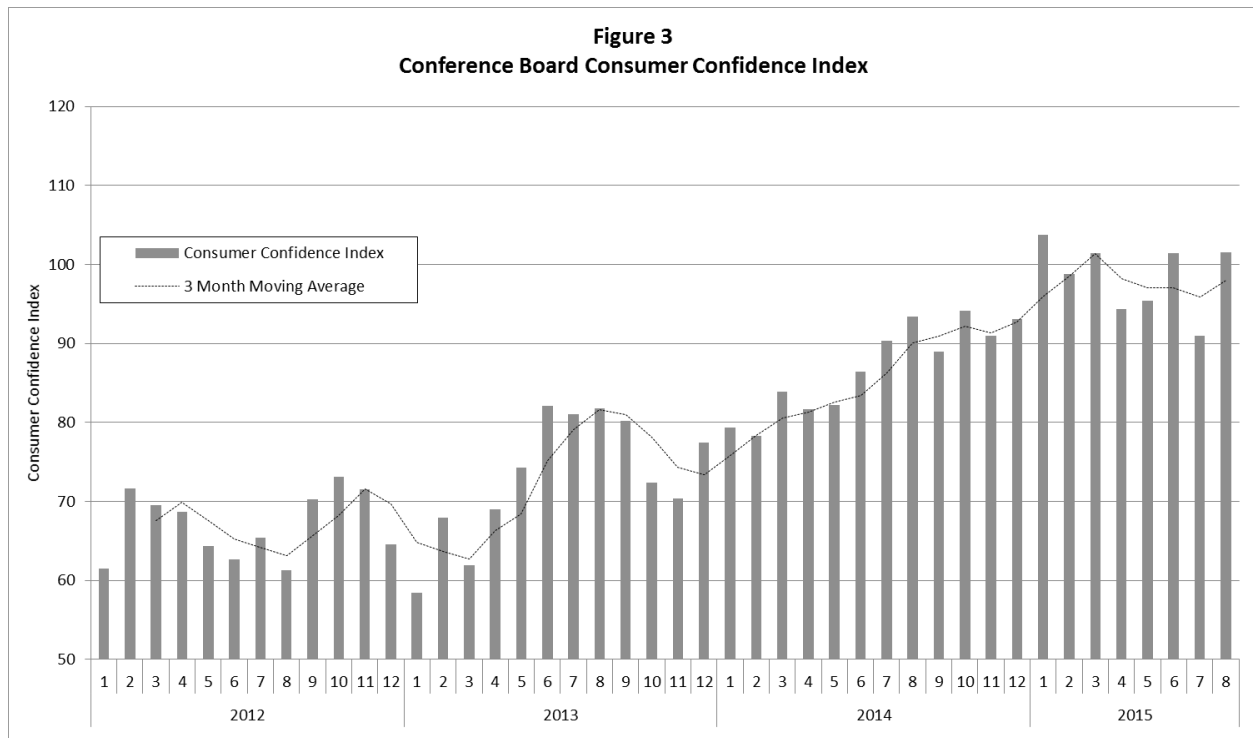
Source: Actuals are from the Bureau of Economic Analysis and estimates are by Moody's Analytics.  
Last Actual Data: August 2015 Series: US-2nd Quarter 2015 and Mid-Atlantic - 4th Quarter 2014 March 2014 Series: US - 3rd Quarter 2013 and Mid-Atlantic - 4th Quarter 2012.

A graphic comparison between the economic indicators available for the 2014 Forecast Study and this current Draw Down letter are shown in Figure 2. The solid lines in Figure 2 show the U.S. GDP and Mid-Atlantic GRP that was available for the 2014 Forecast Study. The dashed lines show the updated GDP and GRP. As shown, forecasts for the second half of 2015 show growing GDP and GRP. Growth rates for both measures peak in 2016 and then moderate slightly in 2017. The important element of this comparison is that current GDP and GRP forecasts slightly exceed those assumed in the 2014 Forecast Study. This helps to explain the current overperformance of actual experience compared to forecasted traffic and revenue, and would lead one to expect for that overperformance to continue into the near future.

## Consumer Confidence

Figure 3 shows the Conference Board Consumer Confidence Index for the period between January 2012 and August 2015. The individual blue bars show the index values for each month while the dotted line shows the three month moving average. As shown, consumer confidence has trended up over the period shown. The average was under 70 in 2012, exceeded 70 in 2013, was near 85 in 2014, and is approximately 95 thus far in 2015.

Consumer confidence is an important measure in that it highlights consumer's willingness to travel more, to be more confident in making purchases, etc. This, in turn, spurs demand for various goods and services. For example, based on recent U.S. Commerce Department figures, U.S. construction spending rose in July 2015 to the highest level in just over seven years as private outlays surged.



Source: The Conference Board - Consumer Confidence Index®.

Recent trends and short term forecasts of motor fuel prices, GDP/GRP, and consumer confidence are all positive and help to explain the over performance of actual traffic and revenue experience on the Turnpike and Parkway since completion of the 2014 Forecast Study. These trends are expected to continue into the near future and have been factored into the short term forecast developed as part of this Draw Down Letter. The extent of the impact will be discussed in the next section.

### Updated Traffic and Revenue Estimates

Table 9 provides a summary of the revised estimates of toll transactions and toll revenue for both the Turnpike and the Parkway. These forecasts include actual data through August 2015. Monthly forecasts were reviewed and adjusted for the remainder of 2015 and for 2016, thereafter, growth forecasts remain unchanged from those provided in CDM Smith's 2014 Forecast Study. For comparative purposes, total system traffic and revenue forecasts from the 2014 Forecast Study are also provided in this table. The revisions incorporated here have taken into account all of the factors described above, including recent historical experience, updated short term motor fuel prices and GDP forecasts, and recovery for weather related impacts in January, February, and March 2015.



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**Table 9**  
**Estimated Annual Traffic and Toll Revenue**  
**New Jersey Turnpike Authority**

**All Transaction and Revenue Values in Thousands**

<b>Annual Toll Transactions</b>						April 2014 T&R Study System Total	Percent Difference
<b>Year</b>	Passenger Cars	Commercial Vehicles	Turnpike Total	Parkway Total	System Total		
2013 (1)	195,208	29,278	224,486	368,918	593,404	593,404	0.0
2014 (1)	202,347	29,896	232,243	370,349	602,592	600,879	0.3
2015 (1)	213,969	31,079	245,048	374,902	619,950	618,860	0.2
2016	220,550	32,016	252,566	379,184	631,750	623,259	1.4
2017	218,984	32,458	251,442	382,710	634,152	630,198	0.6
2018	222,357	32,880	255,237	387,264	642,501	638,470	0.6
2019	225,781	33,307	259,088	391,524	650,612	646,499	0.6
2020	229,709	33,757	263,466	395,831	659,297	655,082	0.6
2021	233,729	34,212	267,941	399,750	667,691	663,365	0.7
2022	237,820	34,674	272,494	403,707	676,201	671,761	0.7
2023	241,982	35,142	277,124	407,542	684,666	680,109	0.7
2024	246,216	35,617	281,833	411,414	693,247	688,569	0.7

<b>Annual Toll Revenue</b>						April 2014 T&R Study System Total	Percent Difference
<b>Year</b>	Passenger Cars	Commercial Vehicles	Turnpike Total	Parkway Total	System Total		
2013 (1)	\$672,828	\$333,892	\$1,006,720	\$407,044	\$1,413,764	\$1,413,764	0.0
2014 (1)	695,129	342,614	1,037,743	408,005	1,445,748	1,432,877	0.9
2015 (1)	739,804	361,808	1,101,612	413,221	1,514,833	1,480,609	2.3
2016	763,712	371,978	1,135,690	417,996	1,553,686	1,495,401	3.9
2017	746,980	377,322	1,124,302	422,057	1,546,359	1,516,756	2.0
2018	758,383	381,389	1,139,772	427,230	1,567,002	1,536,590	2.0
2019	769,960	385,498	1,155,458	432,082	1,587,540	1,556,395	2.0
2020	782,867	390,308	1,173,175	436,963	1,610,138	1,578,216	2.0
2021	796,068	395,178	1,191,246	441,419	1,632,665	1,600,041	2.0
2022	809,492	400,188	1,209,680	445,919	1,655,599	1,622,264	2.1
2023	823,141	405,344	1,228,485	450,327	1,678,812	1,644,752	2.1
2024	837,021	410,650	1,247,671	454,779	1,702,450	1,667,825	2.1

(1) Data through August 2015 is actual.

There is no difference between the 2013 traffic and revenue values in the 2014 Forecast Study and the current analysis. This is because a full year of data was available at the time of the 2014 Forecast Study. 2014 data is now all actual data as well, but this was the first forecast year in the 2014 Forecast Study (it included actual data through March 2014).

As shown in Table 9, total Turnpike toll transactions are estimated to increase from about 224.5 million in 2013 to just over 281.8 million by 2024, an average annual growth rate of 2.1 percent. Total Parkway toll transactions are estimated to increase from 368.9 million in 2013 to approximately 411.4 million by 2024; this reflects an average annual growth rate of 1.0 percent. Total NJTA System toll transactions increase from 593.4 million to about 693.2 million between 2013 and 2024, an average growth rate of 1.4 percent per year.

Total Turnpike toll revenue is estimated to grow from \$1,006.7 million in 2013 to \$1,247.7 million by 2024 reflecting an average annual growth rate of 2.0 percent. Total Parkway toll revenue is estimated to increase from \$407.0 million to \$454.8 million over the forecast period. This represents an average annual growth rate of 1.0 percent. Finally, total Turnpike System toll revenue is expected to increase from \$1,413.8 million in 2013 to \$1,702.5 million by 2024. This averages out to about 1.7 percent growth per year over the forecast period.

Compared to the previous forecasts developed as part of the 2014 Forecast Study, total actual 2014 transactions are about 0.3 percent greater than the forecast. In 2015 the new traffic forecasts are 0.2 percent greater than the previous estimates. Growth in 2015 would have been higher, but was negatively affected by the slightly lower actual experience on the Parkway due to the full impact of the casino closings. In addition, the severe winter weather in January through March 2015 resulted in actual traffic coming in well below estimates developed in the 2014 Forecast Study.

There is a slight spike in 2016, with the new traffic forecast exceeding the 2014 forecast by 1.4 percent. This is attributable to new assumptions regarding the Pulaski Skyway construction schedule. In the 2014 Forecast Study, the positive impact on the Turnpike from Pulaski Skyway construction was assumed to end in April 2016. Construction has now been extended through the end of 2016, resulting in continued positive traffic impacts in 2016 that were not assumed in the 2014 forecast. As noted above, the 2014 Forecast Study growth rates were used for 2017 and beyond. As such, the net impact of all adjustments remains relatively constant at between 0.6 and 0.7 percent between 2017 and 2024.

The same general trend is observed on the revenue side. Total actual toll revenue exceeded the 2014 forecast by 0.9 percent. Strong growth in revenue on the Turnpike during the first eight months of 2015 have resulted in total System toll revenue exceeding the 2014 forecast by 2.3 percent. The impact of extending the Pulaski Skyway construction results in a revised 2016 revenue forecast that is 3.9 percent greater than the 2014 forecast. In 2017 and beyond the new forecast ranges from 2.0 to 2.1 percent greater than the 2014 forecast.

### **Disclaimer**

Current accepted professional practices and procedures were used in the development of these traffic and revenue forecasts. However, as with any forecast of the future, it should be understood that there may be differences between forecasted and actual results caused by events and circumstances beyond the control of the forecasters. In formulating its forecasts, CDM Smith has reasonably relied upon the accuracy and completeness of information provided (both written and oral) by the New Jersey Turnpike Authority and other local, state, and federal agencies, as well as private parties. CDM Smith also has relied upon the reasonable assurances of some independent parties and is not aware of any facts that would make such information misleading.

CDM Smith has made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue forecasts that must be considered as a whole; therefore selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit to partial information extracted from this report.

All estimates and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple federal, state and local agencies, including the New Jersey Turnpike Authority, and some independent parties. These estimates and projections may not be indicative of actual or future values, and are therefore subject to substantial uncertainty. Future developments cannot be predicted with certainty, and may affect the estimates or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any estimate or projections contained within this report.

While CDM Smith believes that some of the projections or other forward-looking statements contained within the report are based on reasonable assumptions as of the date in the report, such forward looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, CDM Smith will



Ms. Donna Manuelli  
October 2, 2015  
Page 20

take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

Sincerely,

A handwritten signature in black ink that reads "Scott A. Allaire".

Scott A. Allaire  
Vice President  
CDM Smith Inc.

# New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study



Final  
May 2014



**CDM  
Smith**

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# Chapter 1

## Introduction

This study presents the traffic and toll revenue forecasts from 2014 through 2024 developed by CDM Smith for the New Jersey Turnpike (Turnpike), the Garden State Parkway (Parkway), and the Total System (the Turnpike and Parkway). This investment grade study was undertaken at the request of the New Jersey Turnpike Authority (NJTA) for use in future bond issuances. CDM Smith forecasts have been used by the NJTA for more than 27 years in support of the issuance of bond financing and for internal financial planning. In light of the current economic climate, it is more important than ever to have up-to-date traffic and toll revenue forecasts based on the most currently available information.

CDM Smith last completed a detailed investment grade traffic and toll revenue study for the NJTA in July 2012. Since that time a “draw down” letter was developed to update the forecast presented in the 2012 study. The draw down letter was presented to the NJTA on February 15, 2013. The purpose of a draw down letter is to update actual traffic and revenue experience since the last study and to adjust short term (2 to 5 year) forecasts based on recent trends. Detailed economic analyses are not conducted as part of a draw down letter and therefore, longer term forecasts are not adjusted from those originally developed as part of the prior investment grade study.

This current investment grade study presents a new ten-year forecast of traffic and toll revenue for the Turnpike and Parkway. The traffic and revenue forecasts were based on a detailed analysis of the past relationship between actual Turnpike and Parkway transactions and actual socio-economic data. The development of the new forecasts relied on the most currently available socio-economic forecasts, historic traffic and toll revenue trends through March 2014, and the NJTA’s most recent assumptions regarding future toll schedules, discount programs and future capital improvements. No toll increases or discount program changes are planned during the projection period. In addition, the estimated E-ZPass market share was developed for the forecast period based on historical trends and on future toll schedule assumptions. Site visits and meetings with local Metropolitan Planning Organizations (MPOs) and other agencies were conducted in order to complete the analysis of the potential growth in traffic and toll revenue on the Turnpike and Parkway. This study resulted in a new ten-year forecast of traffic and toll revenue for the Turnpike and the Parkway.

## Report Structure

This report is comprised of five chapters, including the following:

Chapter 1 (Introduction) provides an introduction to the study, outlines the report structure and presents the basic study methodology.

Chapter 2 (Current Turnpike System Characteristics) introduces the NJTA Turnpike System and provides information on current Turnpike and Parkway characteristics, including per-mile toll rates and toll discount programs, current E-ZPass market shares, and vehicle class compositions on the two facilities. Also included are mainline traffic volumes and recent monthly and daily variations at select mainline locations.

Chapter 3 (Historical Traffic and Toll Revenue Trends) reviews annual and monthly transaction and toll revenue trends on the Turnpike and Parkway. Data are provided for passenger cars and commercial vehicles on the Turnpike and total vehicles on the Parkway. Information is provided on historical changes in the toll schedule and discount programs. Also included are historical E-ZPass market share trends and trends in vehicle composition.

Chapter 4 (Corridor Growth Analysis) summarizes the methodology that was employed to estimate future growth in toll transactions on the Turnpike and Parkway. This includes a description of the econometric model that was utilized as well as the site visits and meetings with local MPOs and other regional or local government agencies. A socioeconomic analysis was conducted to identify potentially explanatory factors that may influence future toll transactions. A discussion of the factors, including population, employment, unemployment, retail sales, and gross regional product trends and forecasts, is provided in Chapter 4. The ultimate product of the corridor growth analysis is a set of estimated annual normal growth rates for Turnpike passenger cars and commercial vehicles, and Parkway total vehicles. These estimated growth rates are presented in Chapter 4 along with a discussion of the explanatory factors.

Chapter 5 (Estimated Annual Toll Transactions and Gross Toll Revenue) presents a summary of the planned roadway improvement program on the Turnpike, the Parkway, and other roads in the study corridor. The estimated toll elasticity and associated impacts on toll transactions and toll revenue associated with the January 2012 toll rate increase are described. Estimates of future E-ZPass market shares are described. Lastly, estimated annual toll transactions and gross toll revenue are provided from 2014 through 2024. The annual estimates are provided for Turnpike passenger cars and commercial vehicles, and for total Parkway vehicles.

## Chapter 2

# Current Turnpike System Characteristics

This chapter describes the two toll facilities that comprise the NJTA System; the Turnpike and Parkway, and presents current characteristics of the two facilities. The characteristics include the current toll collection system, toll rates and accepted methods of payment. The proportion of 2013 toll transactions and toll revenue by each facility is provided. Other characteristics include the E-ZPass market share and the vehicle class composition. Average daily mainline traffic volumes are presented for calendar year 2013, along with a presentation of monthly and daily traffic variations at select mainline locations. It should be noted that gross toll revenue is defined in this report as toll revenue including all toll adjustments and discounts, but not including maintenance and operation costs.

## Facility Descriptions

The NJTA toll road facilities are comprised of the New Jersey Turnpike and the Garden State Parkway. Figure 2-1 shows the location of these two toll roads. Interchange locations in northern and southern New Jersey are shown in Figures 2-2 and 2-3, respectively.

### The New Jersey Turnpike

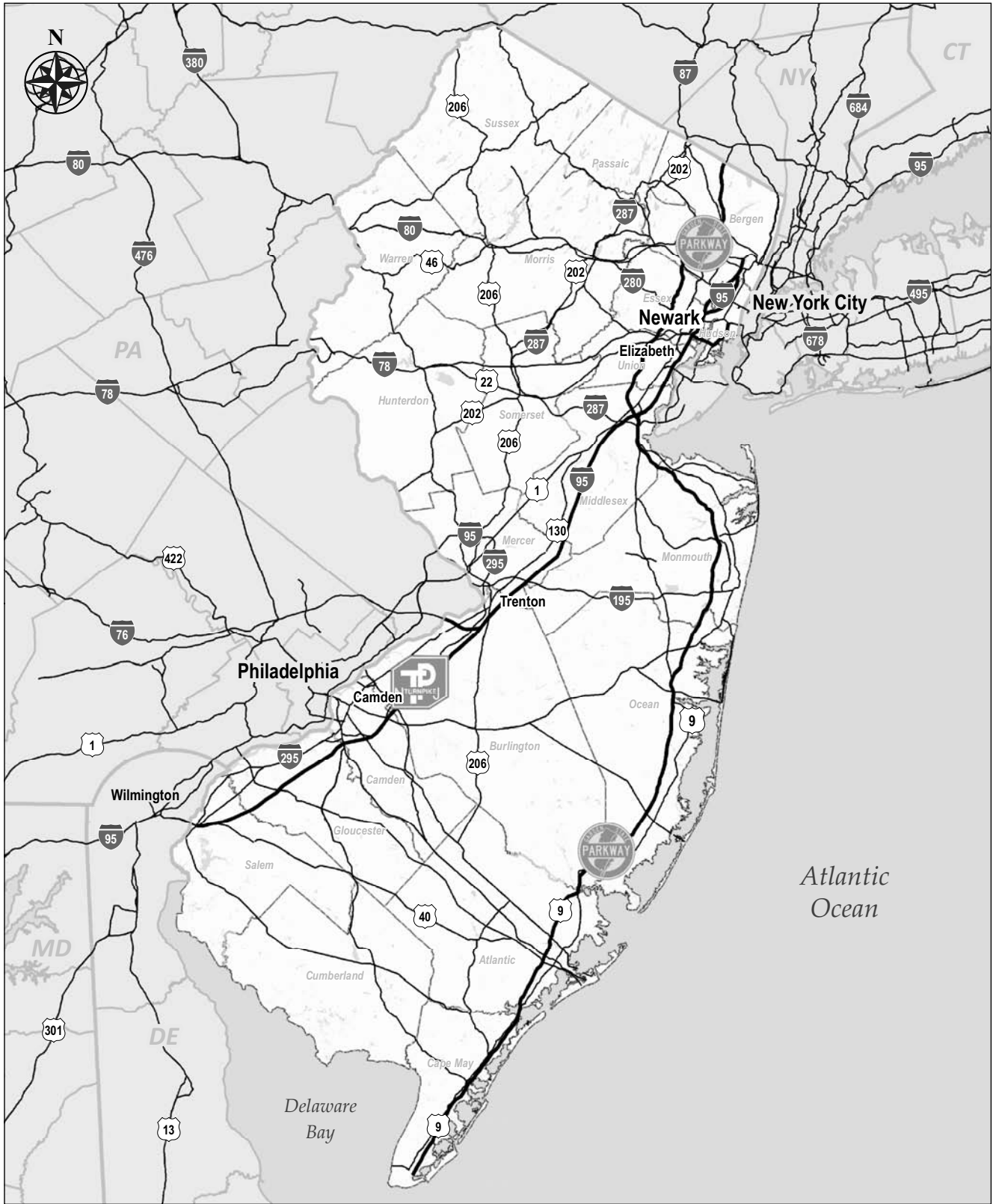
The Turnpike consists of a 122-mile mainline and two extensions, the 8.2 mile Newark Bay-Hudson County Extension (which crosses Newark Bay and connects the cities of Newark with Bayonne and Jersey City), and the 5.7 mile Pearl Harbor Memorial Turnpike Extension (which connects the Turnpike to the Pennsylvania Turnpike, I-276, via a bridge over the Delaware River). The Turnpike mainline is a principal north-south roadway in New Jersey linking major economic centers of the east coast, including Boston, New York City, Philadelphia, and Washington, D.C. Within New Jersey, the Turnpike provides access to a major seaport in Newark and Elizabeth, and to a major airport (the Newark International Airport).

Interchanges on the Turnpike are numbered sequentially from the southern terminus to the northern, ranging from Interchange 1 to 18W/18E. At its southern terminus the Turnpike connects, via a short section of US Route 40, with the Delaware Memorial Bridge, the only crossing between New Jersey and Delaware. At its northern terminus, the Turnpike feeds into the George Washington Bridge, one of the most heavily traveled bridges in the world. North of Interchange 6, the Turnpike carries the I-95 designation.

The Turnpike currently provides two travel lanes per direction between Interchange 1 (Delaware Memorial Bridge) to Interchange 4 (Camden-Philadelphia), and three travel lanes per direction between Interchange 4 to Interchange 8A (Jamesburg/Cranbury). Between Interchange 8A to just north of Interchange 14 (Newark), the Turnpike has an inner roadway and an outer roadway in each direction (four separate roads). Under normal operations, the outer roadway permits truck, bus and passenger-car traffic, while the inner roadway permits only passenger-car traffic. This system of inner and outer roadways is called the “dual/dual” roadway.

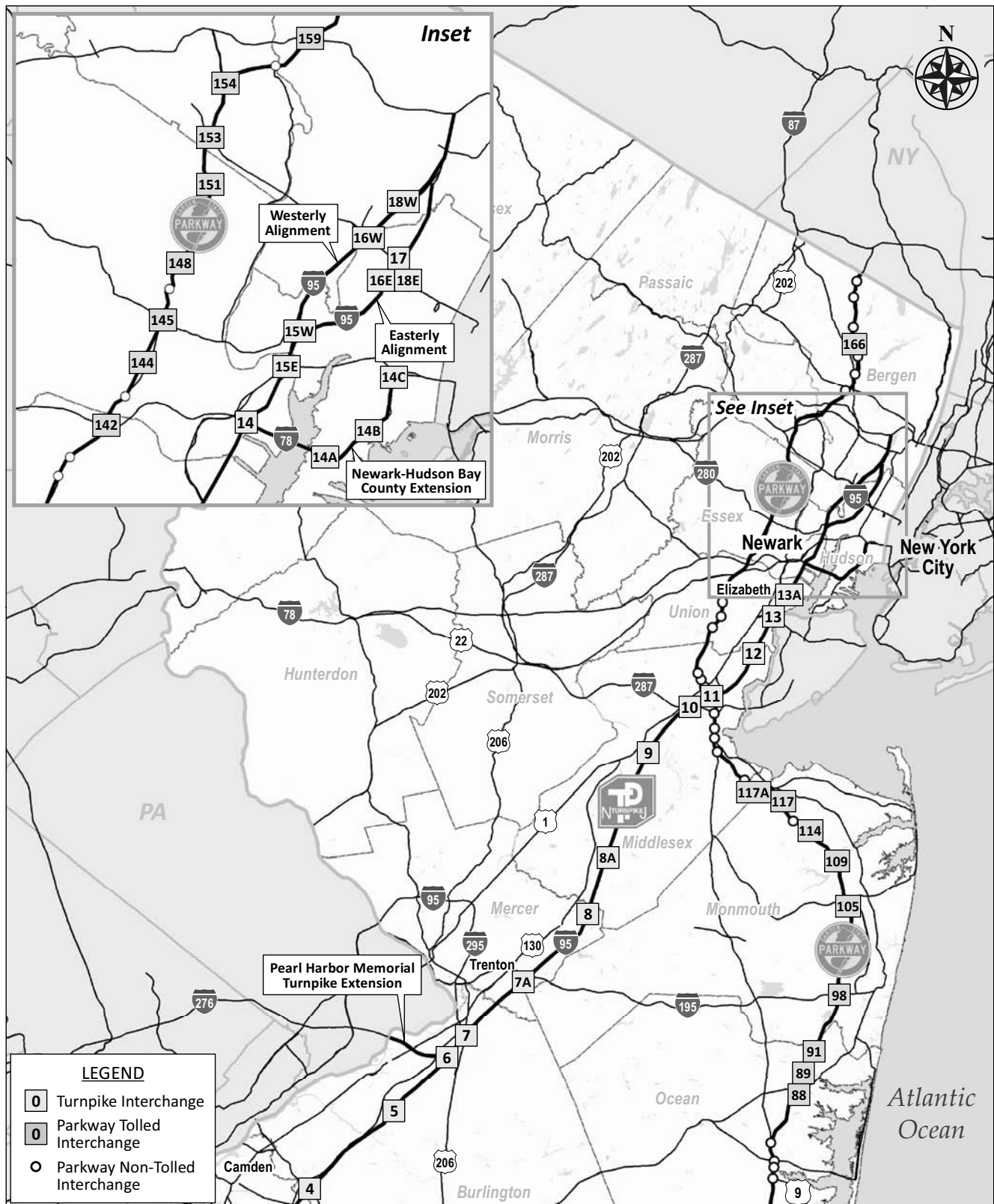
New Jersey Turnpike System  
2014 Traffic and Toll Revenue Forecast Study

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# New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study

NJ 104341 / 2014 IG T&R Study / 4-18-14 / Detail Map of Northern New Jersey.mxd



NJ 104341 / 2014 IG T&R Study / 4-18-14 / Detail Map of Southern New Jersey.mxd



## FIGURE 2-3

Between Interchanges 8A and 9 (East Brunswick), there are a total of five lanes per direction; two outer lanes and three inner lanes. Between Interchanges 9 and 11 there are six lanes per direction; three outer lanes and three inner lanes.

The NJTA is currently implementing the Interchange 6 to 9 Widening Program, which is also described in Chapter 5 in the section Committed Roadway Improvements. This widening program will create a dual/dual roadway between Interchanges 6 and 8A, adding about 25 miles of additional dual/dual roadway, and making the dual/dual system continuous between Interchanges 6 and 8A. Between these two interchanges, the currently existing three lanes per direction will be expanded to three outer lanes and three inner lanes per direction. In addition, the outer roadway will be expanded by one lane per direction between Interchanges 8A and 9, resulting in three outer and three inner lanes per direction. This construction project was initiated in 2009 and is expected to be completed in late 2014. North of Interchange 14, the inner and outer roadways merge together and then split into two alignments, a westerly alignment west of the Hackensack River and an easterly alignment on the east side of the river. Each alignment serves both northbound and southbound traffic. The westerly alignment provides three travel lanes per direction north to Interchange 16W (NJ Route 30), and two travel lanes per direction between Interchange 16W and the merge with the easterly alignment. The easterly alignment provides three travel lanes per direction.

The Newark Bay-Hudson County Extension is a four-lane, 8.2 mile roadway that extends from Interchange 14 and provides access to Bayonne, Jersey City and the Holland Tunnel via Interchanges 14A, 14B, and 14C, respectively. This extension is designated as I-78 on its entire length. The Pearl Harbor Memorial Turnpike Extension is a six-lane, 5.7 mile roadway that provides a connection between the Turnpike mainline and the Pennsylvania Turnpike (I-276/I-76). There is only one Interchange on this extension (Interchange 6).

## The Garden State Parkway

The Parkway is a 173-mile roadway that follows the New Jersey coastline from its southern terminus in Cape May northward to Woodbridge where the Parkway crosses the Turnpike and continues in a northerly direction further inland, passing through Newark and Clifton before reaching the NJ/NY State line. The Parkway connects to the New State Thruway (Interstate 87) just north of the NJ/NY State line. Interchanges on the Parkway are numbered by milepost from south to north beginning with Interchange 0 in Cape May and ending with Interchange 171 in northern New Jersey. The Parkway provides access to the Atlantic City Expressway; Interstate Routes 195, 287, 78, 280, and 80; the New Jersey Turnpike; and various U.S. and state highways.

Both commuters and tourists are served by the Parkway. Commuter and business traffic is high in the northern sections of the Parkway, as it passes through Bergen, Passaic, Essex, Union, and Middlesex counties near the New Jersey cities of New Brunswick, Newark, Jersey City, and New York City, NY. The proportion of tourist and recreational trips increases on the southern Parkway through Monmouth, Ocean, Atlantic and Cape May counties. While commercial traffic does occur on the Parkway, heavy commercial vehicles (registered as 10,000 lbs. or more, or those having six tires or three-or-more axles) are prohibited from using the Parkway north of Interchange 105 in Monmouth County.

Two travel lanes per direction are provided on the Parkway from Interchange 0 (Cape May) to Interchange 6 in the northbound travel lanes and to Interchange 9 in the southbound lanes. The

Parkway then has three lanes per direction until just north of Interchange 11. The Parkway maintains two lanes per direction until Interchange 48 (US 9 in Atlantic County). Three travel lanes per direction are provided northward to Interchange 91 (Route 549 in Monmouth County), four lanes per direction through Interchange 102 (Neptune in Monmouth County), and five lanes per direction through Interchange 117 (Route 35 in Monmouth County). Six travel lanes per direction are provided between Interchanges 117 and 127 (I-287 in Union County), and five lanes per direction are provided northward through Interchange 140 in Union County. Four travel lanes per direction exist northward to Interchange 145 (I-280 in Essex County), six lanes per direction continue northward to Interchange 168 in Bergen County, and four lanes per direction continue to the New York State border.

The NJTA is currently implementing a widening program on the Parkway between interchanges 36 and 48, to add an additional lane in each direction, totaling three lanes per direction. This construction project scheduled to begin in summer 2014 and to be opened to traffic in May 2017.

## Toll Collection

This section presents information on the current toll collection system, the toll schedule and accepted methods of payment, and discount programs.

### Toll Collection Systems

There are two toll collection systems on the Turnpike System: a ticket system on the Turnpike (with the exception of two barrier toll plazas described below) and an open-barrier system on the Parkway.

On the Turnpike, motorists pick up a ticket upon entering the Turnpike and pay for the trip upon exiting the Turnpike. The toll rate is based on the trip entrance and exit (the trip distance), the vehicle class, the time of day, and the method of payment. There are no toll-free movements on the ticket system. There are two barrier plazas that are part of the Turnpike, but not part of the ticket system. These are located at Interchanges 6A (Florence) and 17 (Lincoln Tunnel, Secaucus). At these two locations, motorists pay a fixed toll for passing through the toll plaza. Tolls are collected in the northbound direction at Interchange 17 and in the eastbound direction at Interchange 6A. There are 28 interchanges on the Turnpike.

On the Parkway, motorists pay a fixed toll at mainline and ramp barrier toll plazas. The toll is based on the type of barrier (mainline or ramp), vehicle class, the time of day, and method of payment. One trip may pass through multiple toll barriers. There are 11 mainline barrier locations, and 23 interchanges that have ramp barrier toll plazas. Out of the 11 mainline barriers, only one, Toms River at milepost 85, support toll collection in both the northbound and southbound directions. The ten other mainline barriers were all gradually converted from two-way to one-way toll collection (either northbound or southbound) to create greater efficiencies in the toll collection system and reduce motorist delay.

### Toll Schedule and Methods of Payment

Both the Turnpike and the Parkway accept cash and E-ZPass for toll payments. Peak periods are defined by the NJTA as 7:00 to 9:00 AM and 4:30 to 6:30 PM Monday through Friday, and all day Saturday and Sunday for both toll road facilities. Both toll roads have a separate toll schedule for the following vehicle classes:

- 2 axle passenger cars;



- 2 axle trucks;
- 3 axle trucks;
- 4 axle trucks;
- 5 axle trucks;
- 6-or-more axle trucks;
- 2 axle buses; and
- 3 axle buses.

The NJTA offers automatic discounted toll rates on both toll roads to vehicles equipped with a NJ E-ZPass transponder. The eligibility for the discount is based on time of day, vehicle class, and other factors. Other discount programs which require enrollment are offered on one or both of the toll roads. These programs include a Senior Citizen Discount and a Green Pass Discount (eligible low emissions vehicles) among others.

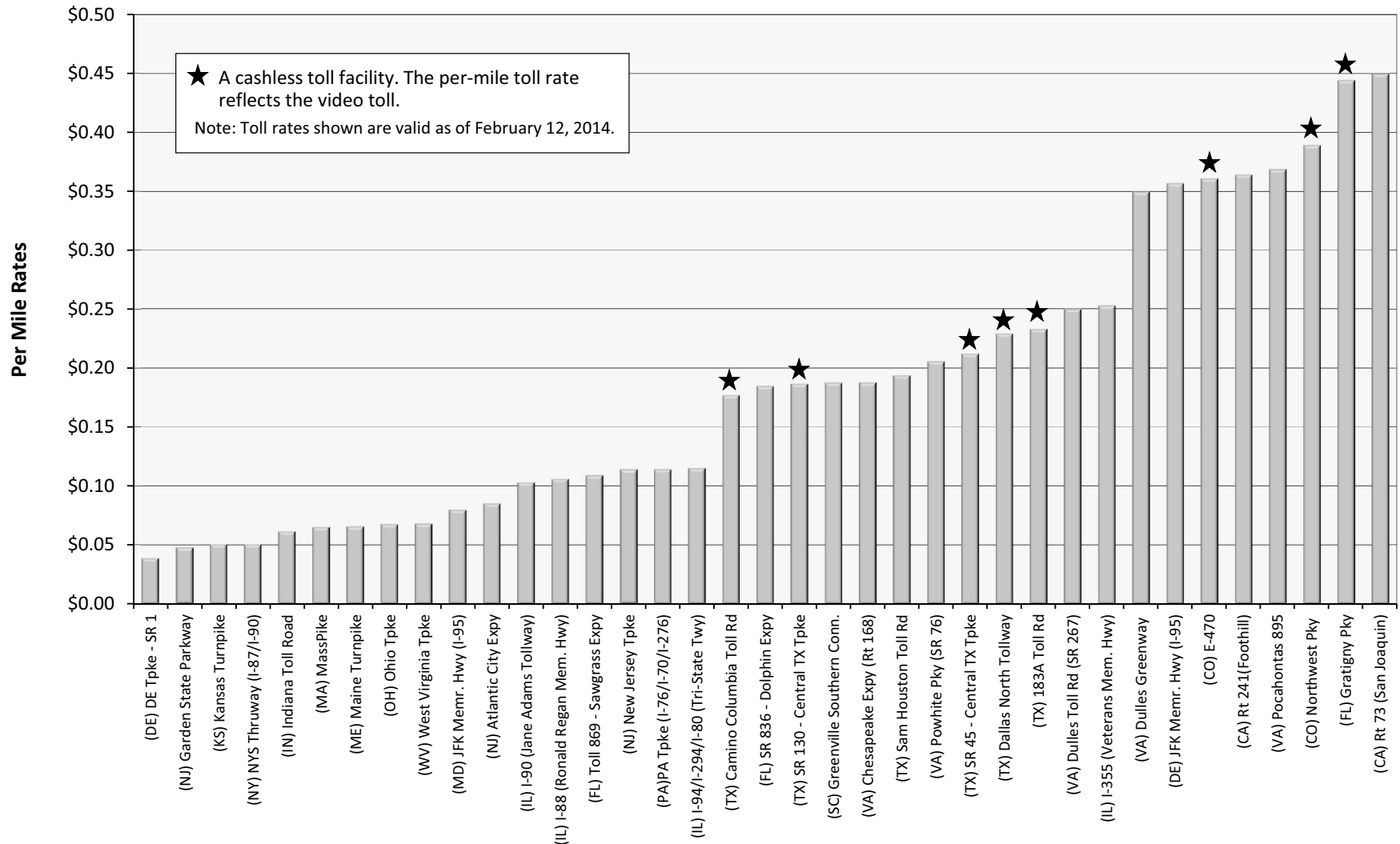
The current toll schedule was implemented on January 1, 2012. Currently, the toll rate for a passenger car paying with cash or E-ZPass to travel the entire length of the Turnpike during a peak period is \$13.85, which is equivalent to 11.4 cents per mile. The toll rate for a through trip on the Parkway is \$8.25 or 4.8 cents per mile for a passenger car paying with either cash or E-ZPass. To put these toll rates in perspective, a comparison of 2014 per-mile toll rates for cash-paying passenger-car through trips is presented in Figure 2-4 for a variety of U.S. toll roads including the New York State Thruway, the Indiana Toll Road, the Pennsylvania Turnpike mainline, and the Dulles Greenway in VA. The Turnpike and Parkway are highlighted in yellow. In comparison with other major toll facilities in the U.S., the Turnpike and Parkway have moderate toll rates. Per-mile toll rates shown in Figure 2-4 range from 3.9 cents per mile on the Delaware Turnpike (SR 1) to 38.3 cents per mile on California Rt. 73 (San Joaquin). A similar comparison for ETC (Electronic Toll Collection) toll rates can be seen in Figure 2-5.

## 2013 Toll Transactions and Gross Toll Revenue by Facility

As presented in Figure 2-6, approximately 71.2 percent of the systemwide 2013 annual gross toll revenue was collected on the Turnpike compared to 28.8 percent on the Parkway. This reflects the higher per-mile toll rate structure on the Turnpike compared to the Parkway. In 2013, the Turnpike generated \$1,006 million in gross toll revenue compared to \$407 million for the Parkway.

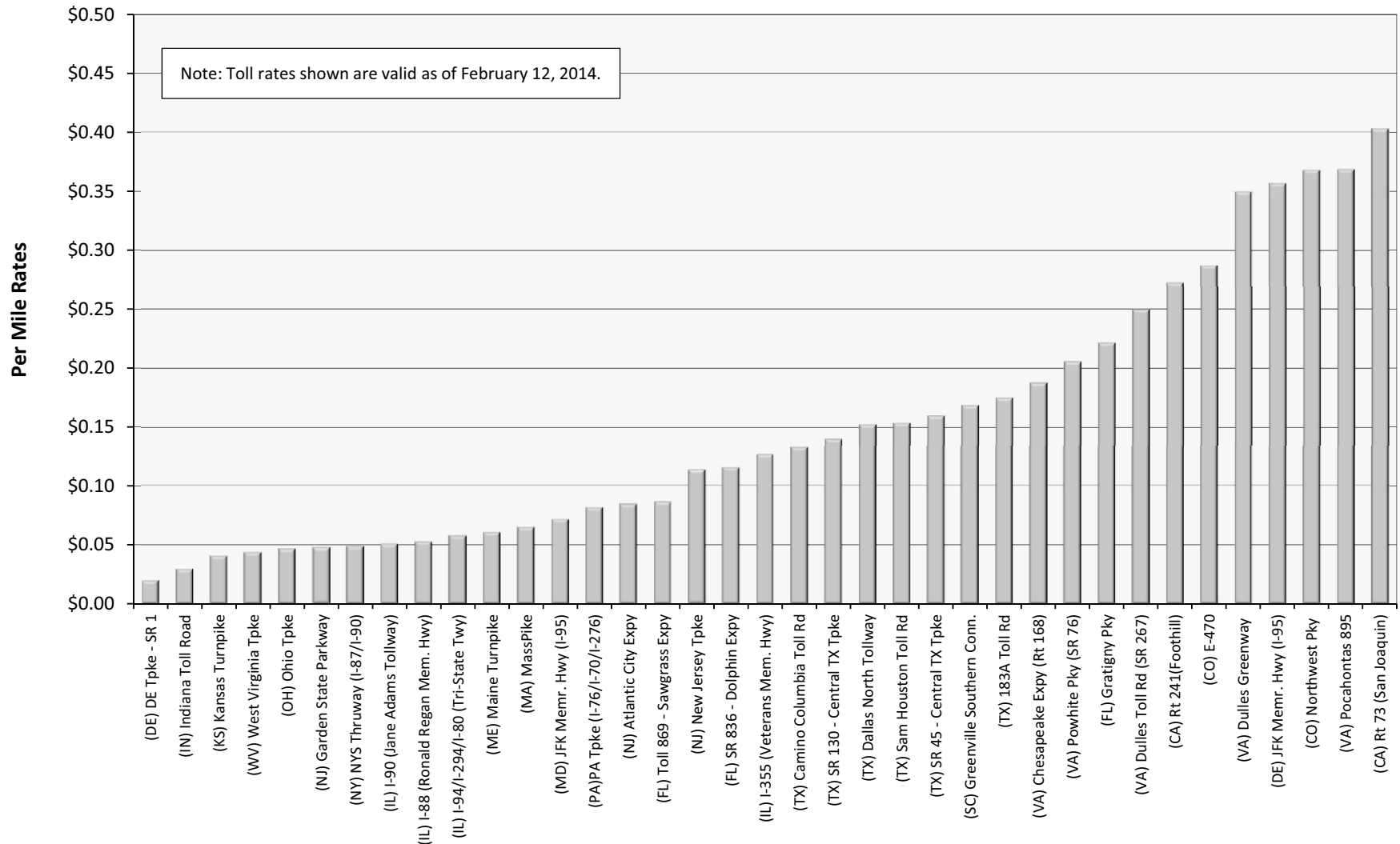
In contrast, the Turnpike generated only 37.8 percent of the total 2013 toll transactions compared to 62.2 percent generated by the Parkway. The Turnpike generates fewer toll transactions because one transaction accounts for the entire trip while multiple transactions may occur on a Parkway trip. In 2013, the Turnpike generated approximately 224 million toll transactions compared to 369 million toll transactions for the Parkway.

# New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study

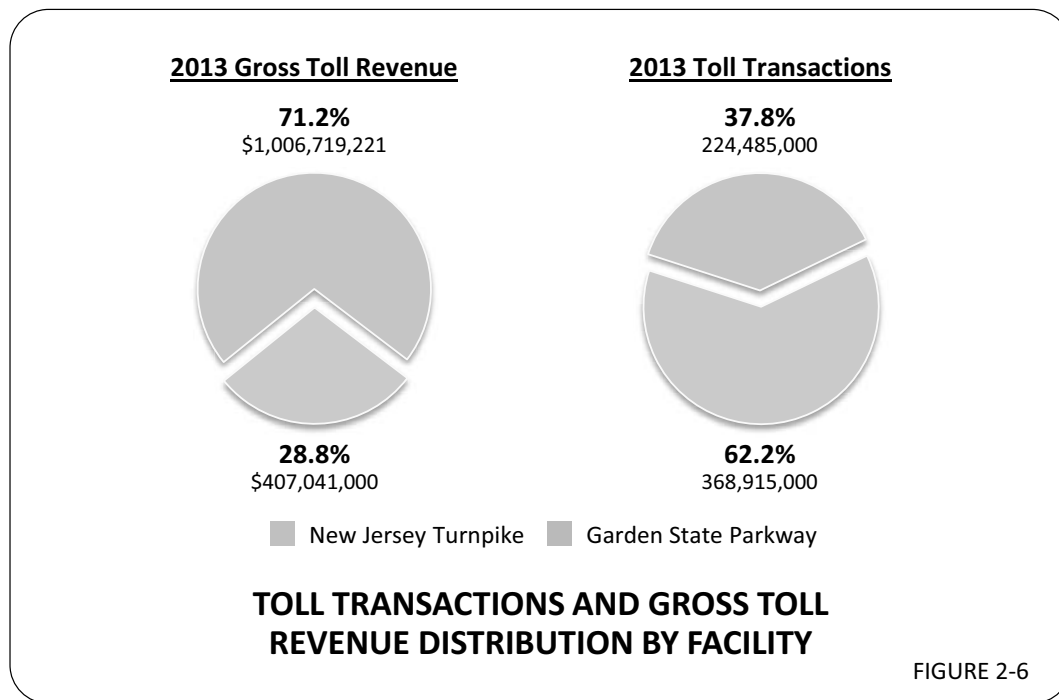


## 2014 CASH PER-MILE TOLL RATES FOR PASSENGER CARS (BASED ON A THROUGH TRIP)

# New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study



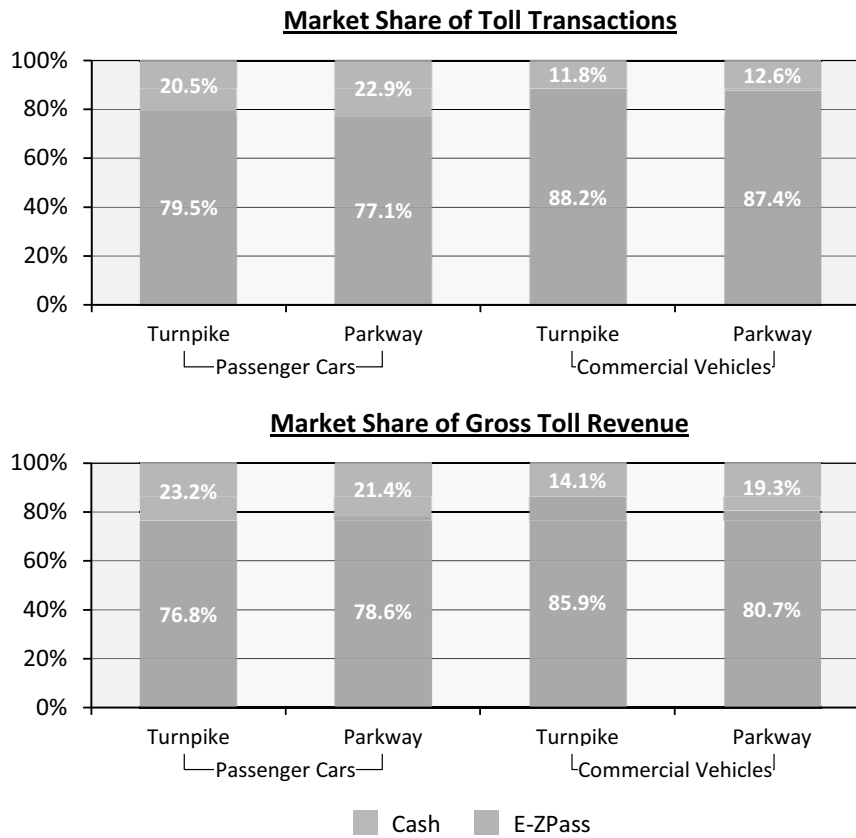
## 2014 ETC PER-MILE TOLL RATES FOR PASSENGER CARS (BASED ON A THROUGH TRIP)



## 2013 E-ZPass Market Share

E-ZPass is the preferred method of payment on both the Turnpike and the Parkway. The market share of E-ZPass in 2013 for the Turnpike and Parkway is presented in Figure 2-7. E-ZPass comprised 79.5 percent of all Turnpike and 77.1 percent of all Parkway passenger-car toll transactions. The E-ZPass market share was even higher for commercial vehicles, totaling 88.2 percent of all commercial-vehicle transactions on the Turnpike and 87.4 percent on the Parkway.

The market share of gross toll revenue generated by E-ZPass compared to cash was very similar to the market share by transactions. About 76.8 percent of passenger-car gross toll revenue was generated by E-ZPass on the Turnpike and 78.6 percent on the Parkway. About 85.9 percent of commercial-vehicle gross toll revenue was generated by E-ZPass on the Turnpike and 80.7 percent on the Parkway revenue.



### 2013 E-ZPass MARKET SHARE

FIGURE 2-7

## 2013 Vehicle Class Distribution

Passenger-car transactions comprised the vast majority of total toll transactions on both the Turnpike and the Parkway. The vehicle class distribution in 2013 is presented in Table 2-1. Passenger cars comprised 86.7 percent of all Turnpike transactions, and 98.6 percent of Parkway transactions. On the Turnpike, five-axle trucks totaled 6.2 percent of total transactions.

**Table 2-1**  
**2013 Vehicle Class Distribution**  
**By Toll Transactions and Gross Toll Revenue**  
**(Percent Distribution)**

Vehicle Class	Description	2013 Toll Transactions			2013 Gross Toll Revenue		
		Turnpike	Parkway	Total System	Turnpike	Parkway	Total System
1	Passenger Cars	86.7	98.6	94.1	68.2	96.3	76.3
2	2 Axle Trucks	3.4	0.3	1.5	5.2	0.5	3.9
3	3 Axle Trucks	1.4	0.3	0.7	2.3	0.7	1.8
4	4 Axle Trucks	1.1	0.2	0.5	2.7	0.7	2.1
5	5 Axle Trucks	6.2	0.1	2.4	19.2	0.5	13.8
6	6-or-More Axle Trucks	0.1	0.0	0.1	0.5	0.1	0.4
B2	2 Axle Buses	0.2	0.2	0.2	0.2	0.6	0.3
B3	3 Axle Buses	0.8	0.3	0.5	1.7	0.6	1.3
Total		100.0	100.0	100.0	100.0	100.0	100.0
Passenger Cars (Class 1)		86.7	98.6	94.1	68.2	96.3	76.3
Commercial Vehicles (Classes 2-6, B2,B3)		13.3	1.4	5.9	31.8	3.7	23.7

Source: NJTA

On the revenue side, Turnpike passenger cars generated 68.2 percent of the 2013 annual gross toll revenue and five-axle trucks generated 19.2 percent. Parkway passenger cars generated 96.3 percent of the 2013 annual gross toll revenue.

## 2013 Mainline Traffic Volumes

The Turnpike and Parkway each serve a vast number of motorists every day. Table 2-2 presents annual average daily traffic (AADT) volumes on mainline sections of the Turnpike in 2013, and shows the percent trucks of the total volume. The AADTs are for both directions of travel. On the Turnpike Mainline, AADTs ranged from 43,900 at the southern terminus (between Interchanges 1 and 2) to a high of 235,000 between Interchanges 13 (Elizabeth) and 13A (Newark Airport – Elizabeth Seaport). AADTs peaked at 115,400 on the Easterly Alignment and 125,400 on the Westerly Alignment in 2013. Annual average daily traffic volumes ranged from 57,900 to 77,000 in 2013 on the Newark Bay-Hudson County Extension, and from 34,300 to 38,200 on the Pearl Harbor Memorial Extension.

Mainline traffic data on the Parkway is only available where there is a mainline barrier toll plaza. There are 11 mainline barrier toll plazas on the Parkway, and only one of them (Toms River) operates in both the northbound and southbound directions. 2013 mainline AADTs on the Parkway are shown

**Table 2-2**  
**2013 Annual Average Daily Traffic**  
**Volumes On Mainline Segments**  
**New Jersey Turnpike**  
**(Both Directions)**

<b>Mainline Section Between Interchanges</b>		<b>2013</b>	<b>Percent</b>
<b>Interchange</b>	<b>Interchange</b>	<b>AADT (1)</b>	<b>Commercial Vehicles</b>
<b>Mainline</b>			
1	2	43,900	12.4
2	3	46,600	12.4
3	4	54,700	12.3
4	5	68,300	12.3
5	JCT. (2)	72,700	12.2
JCT. (2)	7	99,600	13.1
7	7A	109,300	14.1
7A	8	120,700	15.1
8	8A	123,500	14.7
8A	9	145,200	14.4
9	10	181,100	13.1
10	11	172,300	13.4
11	12	211,400	13.8
12	13	224,200	14.2
13	13A	235,000	14.8
13A	14	198,800	15.1
14	M (3)	214,900	15.3
<b>Mainline Easterly Alignment</b>			
M (3)	15E	101,700	14.0
15E	JE (4)	98,300	14.0
JE (4)	15X	115,400	13.2
15X	16E/18E	108,300	12.6
17	N (5)	50,200	15.0
<b>Mainline Westerly Alignment</b>			
M (3)	JW (6)	113,200	16.4
JW (6)	15W	125,400	17.7
15W	16W	120,300	16.6
16W	18W	87,000	17.4
<b>Newark Bay-Hudson County Extension</b>			
14	14A	77,000	8.7
14A	14B	60,300	5.9
14B	14C	57,900	5.4
<b>Pearl Harbor</b>			
<b>Memorial Turnpike Extension</b>			
JCT (2)	6	34,300	15.0
6	Bridge (7)	38,200	15.9

(1) Annual Average Daily Traffic

(2) JCT = the interchange between the Turnpike Mainline and the Pearl Harbor Memorial Turnpike Extension.

(3) M = The point where the dual-lane terminate and merge into the easterly and westerly alignments.

(4) JE = southernmost access point on the easterly alignment.

(5) N = mainline section north of Interchange 17.

(6) JW = southernmost access point on the westerly alignment.

(7) Bridge = the bridge over the Delaware River that ties into I-276 in PA.

Source: NJTA

in Table 2-3 at the mainline barrier plazas. Actual AADTs are shown in the tolled direction, and estimated two-directional AADTs are shown based on doubling the traffic volume in the tolled direction. Mainline 2013 AADTs ranged from 28,600 at the southernmost plaza (Cape May) to 220,400 at the Raritan Plaza, milepost 124.

**Table 2-3**  
**2013 Annual Average Daily Traffic Volumes**  
**At Mainline Toll Plazas**  
**Garden State Parkway**  
**(By Direction)**

2013 Annual Average Daily Traffic				
Milepost	Mainline Toll Plaza	NB (1)	SB (2)	Both (3)
166	Pascack Valley *	na	41,800	83,600
161	Bergen*	70,800	na	141,600
151	Essex*	na	74,000	148,000
142	Union*	99,100	na	198,200
124	Raritan*	na	110,200	220,400
104	Asbury Park*	76,800	na	153,600
85	Toms River	44,500	42,400	86,900
69	Barnegat*	na	32,000	64,000
54	New Gretna*	19,500	na	39,000
29	Great Egg*	na	19,200	38,400
19	Cape May*	14,300	na	28,600

(1) NB = northbound

(2) SB = southbound

(3) These are estimated AADTs based on doubling the reported traffic in the tolled direction.

\* These mainline toll plazas have one-way toll collection. Traffic volumes are not available in the non-tolled direction.

Source: NJTA

## 2013 Mainline Monthly and Daily Traffic Volumes

This section presents 2013 monthly and daily traffic variations on select Turnpike and Parkway mainline segments. Recall that mainline traffic volume data is only available at mainline toll barriers on the Parkway, in the tolled direction. The following mainline sections were selected to illustrate the range of conditions on the facilities from the southern to the northern locations:



**Turnpike mainline segments:**

- Interchange 1 (Delaware Memorial Bridge) to 2 (Swedesboro-Chester);
- Interchange 7 (Bordentown-Trenton) to 7A (Allentown-Trenton);
- Interchange 9 (New Brunswick) to 10 (Edison); and
- Interchange 16W (NJ 3-Sportsplex) to 18W (George Washington Bridge).

**Parkway mainline segments:**

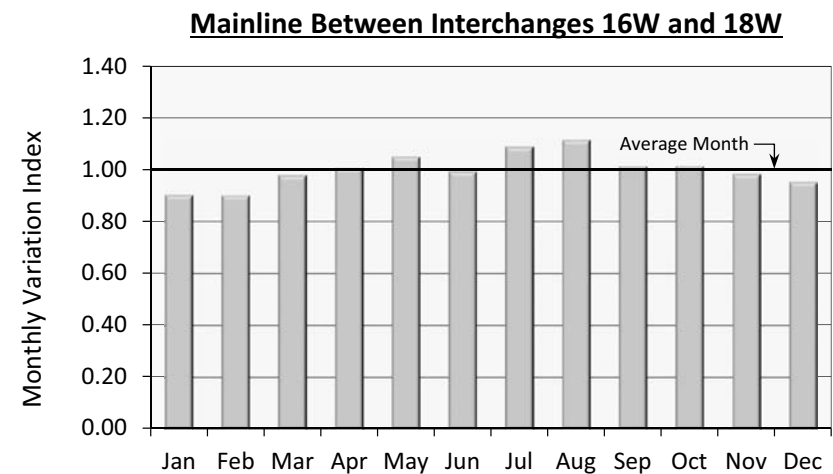
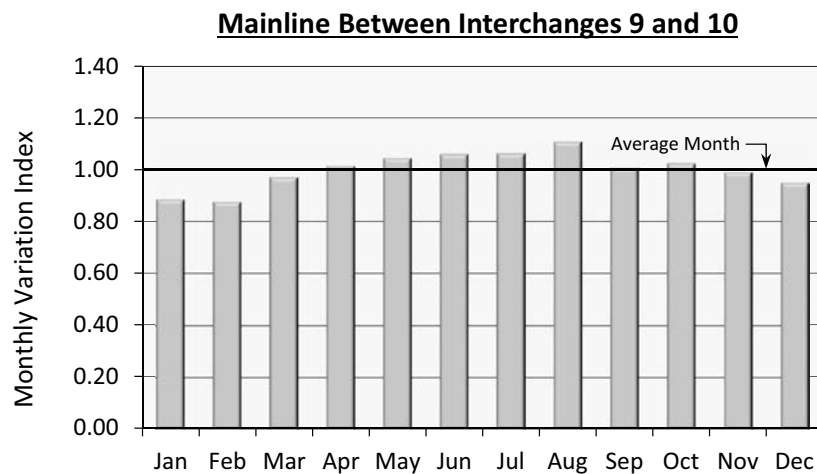
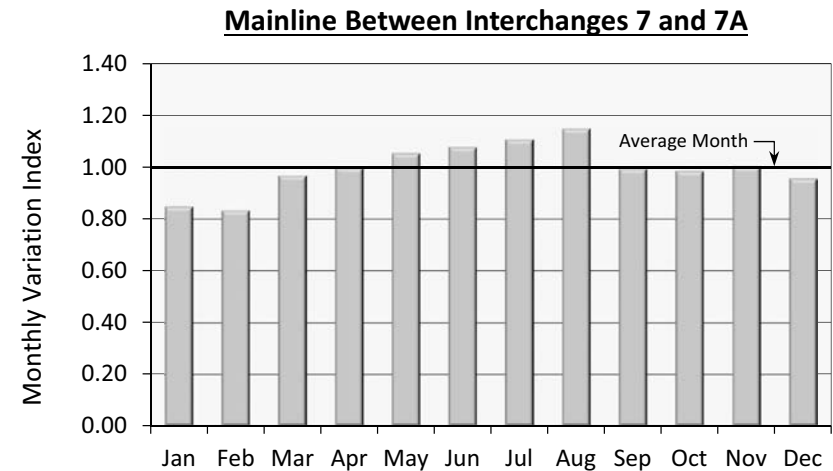
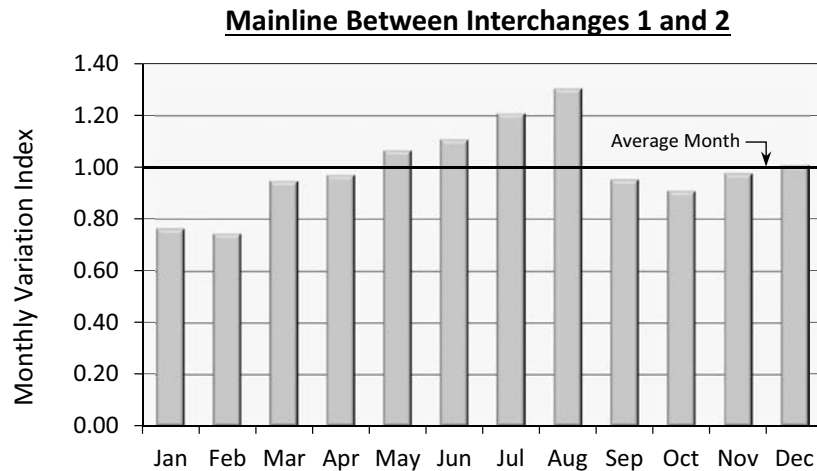
- Cape May Mainline Plaza - northbound (milepost 19);
- Toms River Mainline Plaza - northbound (milepost 85);
- Union Mainline Plaza - northbound (milepost 142); and
- Bergen Mainline Plaza - northbound (milepost 161).

The Turnpike characteristics are based on the total two-way traffic on each link, and the Parkway characteristics are based on northbound traffic.

**Monthly Traffic Variations**

Based on the four selected Turnpike mainline locations, the 2013 monthly traffic variations were greatest in the southern, more rural locations and less pronounced in the northern, more urban locations. These variations are shown in Figure 2-8. The traffic variations are based on average daily traffic (ADT) per month, and an index of 1.00 represents the “average month”. In general, daily traffic volumes peaked during the summer months and reached their low point in January or February. As shown in Figure 2-8, average daily traffic on the southernmost Turnpike link, Interchange 1 – 2, in August was 31 percent higher than the average month, while the ADT in February was 75 percent of the average month. This represents a 56 percentage point spread in monthly ADTs. In contrast, the total spread decreased to 32 percentage points at mainline sections between Interchanges 7 – 7A, and 23 and 21 percentage points between Interchanges 9 – 10, and 16W and 18W, respectively. August traffic was only 11 percent higher than the average month, and both January and February traffic was 90 percent of the average month on the mainline between Interchanges 16W and 18W.

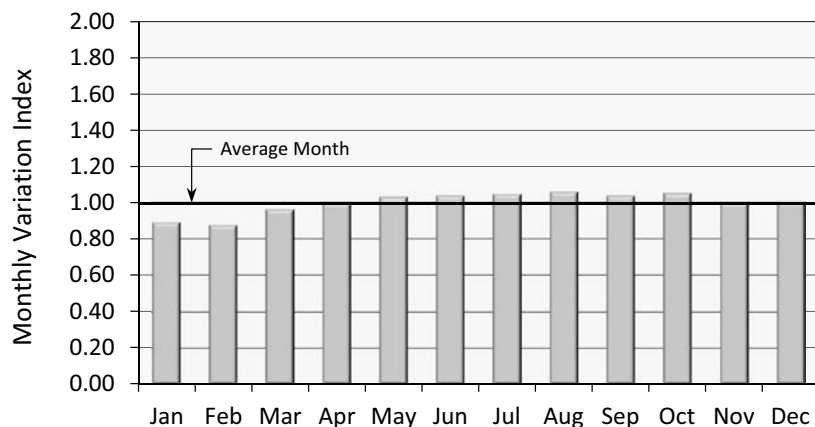
Monthly traffic variations for the Parkway are presented in Figure 2-9. The variations are shown for northbound traffic at the selected mainline barrier toll plazas. In similarity with the Turnpike, monthly ADTs peaked in August, and reached the lowest level in January or February. Average daily traffic on the southern mainline section that contains the Cape May toll plaza was 85 percent greater than the average month in August, and January traffic was only 62 percent of the average month. This represents a 123 percentage point spread between the lowest and highest traffic month. The total percentage point spread in monthly variations decreased to 41 points at the Toms River mainline barrier (milepost 85), and to 21 and 18 percentage points at the Union and Bergen mainline barriers, respectively. At the Bergen mainline barrier, August daily traffic was 6 percent greater than the average month, and February daily traffic was 88 percent of the average month.



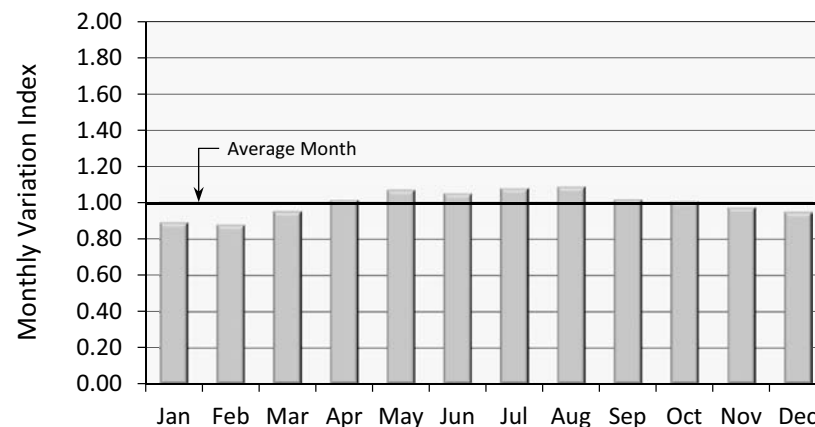
Note: Based on Two-Way Traffic Volumes.  
Source: NJTA

## New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study

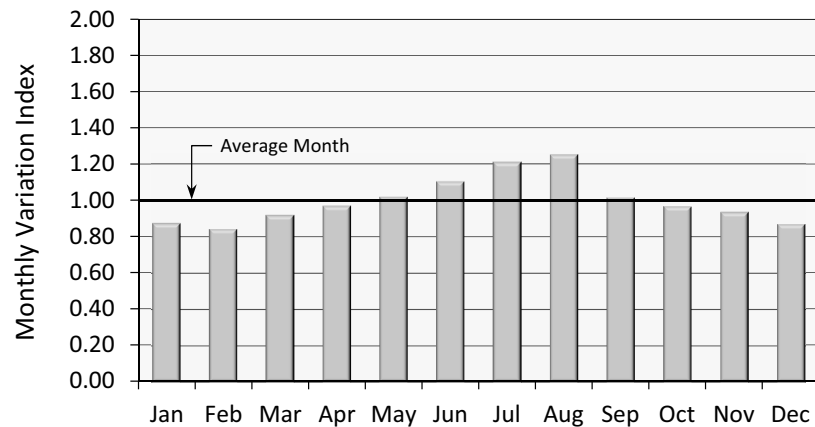
**Bergen Mainline Barrier**



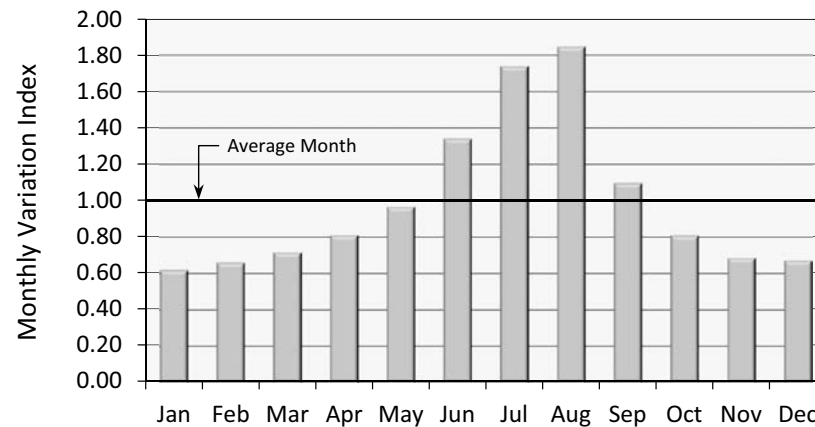
**Union Mainline Barrier**



**Toms River Mainline Barrier**



**Cape May Mainline Barrier**



Note: Based on Northbound Traffic Volumes.  
Source: NJTA

## Daily Traffic Variations

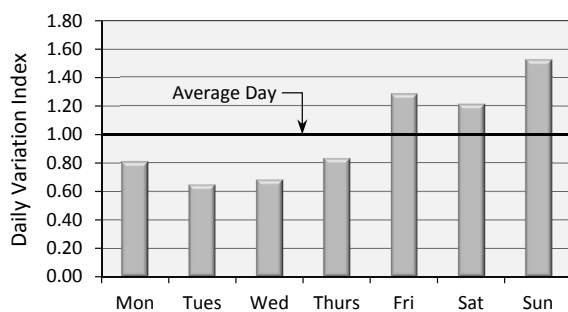
A sample of daily mainline traffic volumes at the select mainline locations was provided by the NJTA. The sample consisted of a week of traffic data in April and October 2013. Daily traffic variations were developed by averaging the April and October data. The daily variations on the Turnpike are presented in Figure 2-10 for passenger cars and commercial vehicles. As anticipated, commercial-vehicle traffic volumes were very consistent throughout the weekdays, and declined on Saturday and Sunday. Daily passenger-car traffic volumes were most consistent on the northern, more urban sections, and showed more daily variation in the southern sections of the Turnpike. On the northern Turnpike, between Interchanges 16W and 18W, Friday passenger-car traffic was 13 percent greater than the average day, and both Tuesday and Wednesday passenger-car traffic was 94 percent of the average day. On the southern mainline section between Interchanges 1 and 2, Friday passenger-car traffic was 29 percent greater than the average day, and Tuesday passenger-car traffic was 65 percent of the average day. In general, Turnpike passenger-car traffic peaked on Friday, and reached its lowest volume on a Tuesday.

Daily traffic variations for the Parkway are shown in Figure 2-11. The daily variations are shown for total traffic, as the percent of trucks is very small. At the two more northerly locations (Bergen and Union mainlines) the daily traffic volumes peaked on Friday and reached the lowest volume on Sunday. At the two more southerly locations (Toms River and Cape May) the daily traffic volumes peaked on Sunday and reached the lowest volume on Tuesday or Wednesday. This is indicative of the higher proportion of tourist and recreational traffic on the southern sections of the Parkway.

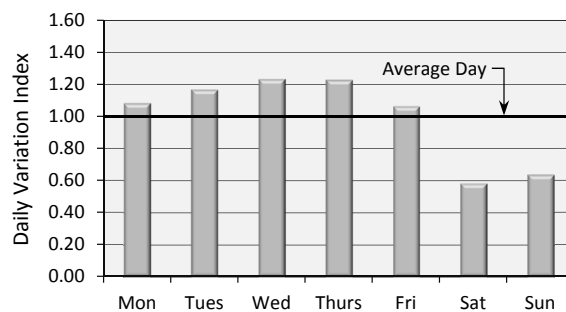
# New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study

## Passenger Cars

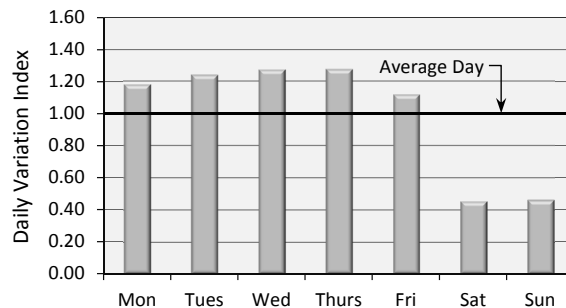
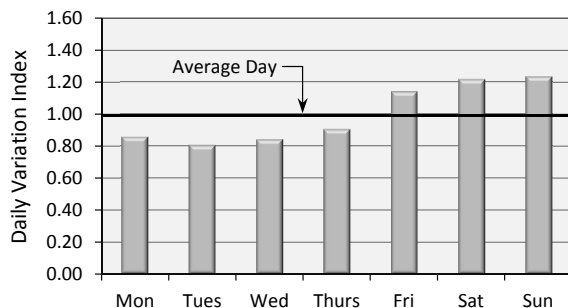
### Mainline Between Interchanges 1 and 2



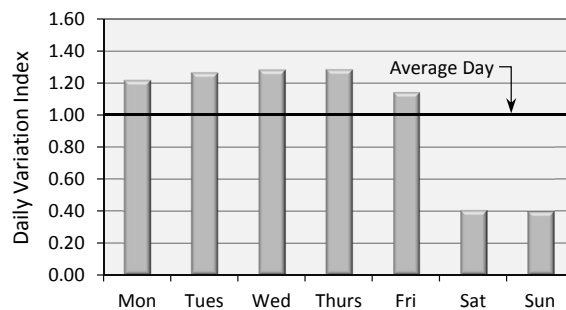
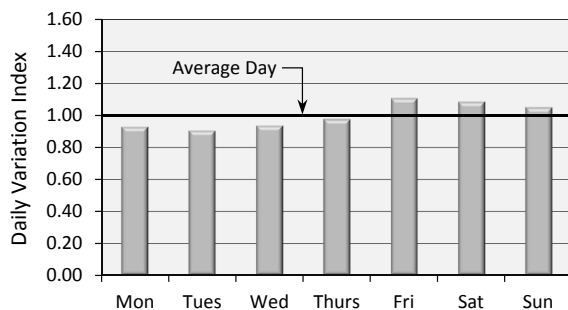
## Commercial Vehicles



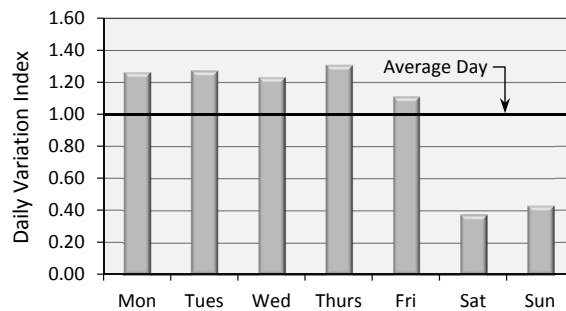
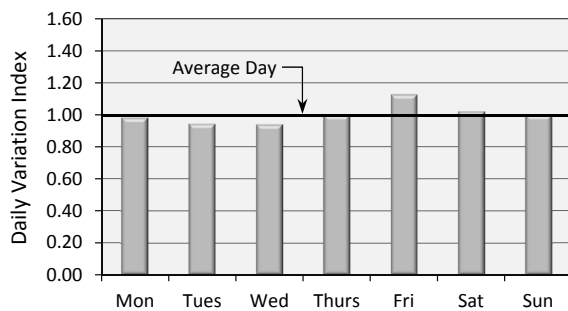
### Mainline Between Interchanges 7 and 7A



### Mainline Between Interchanges 9 and 10

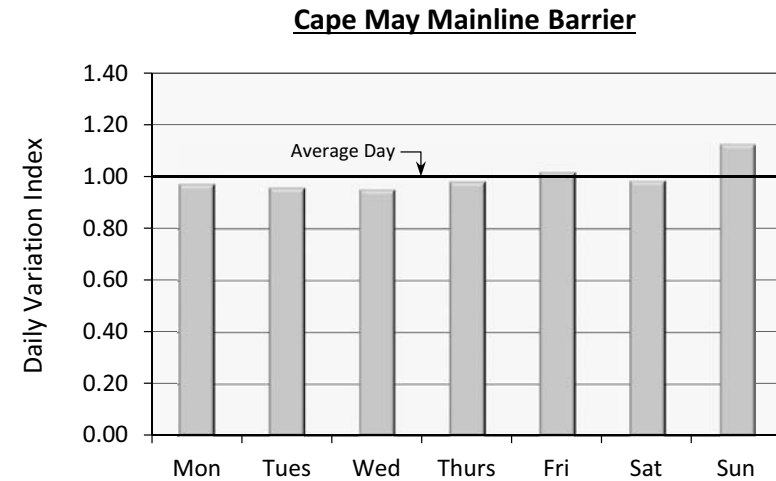
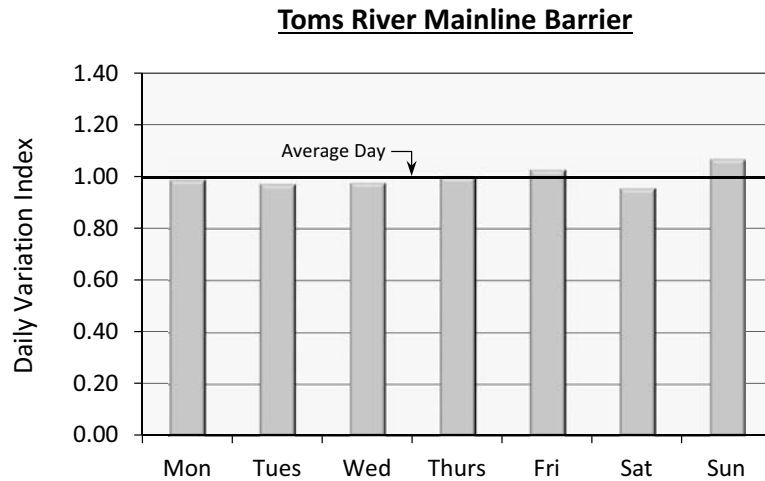
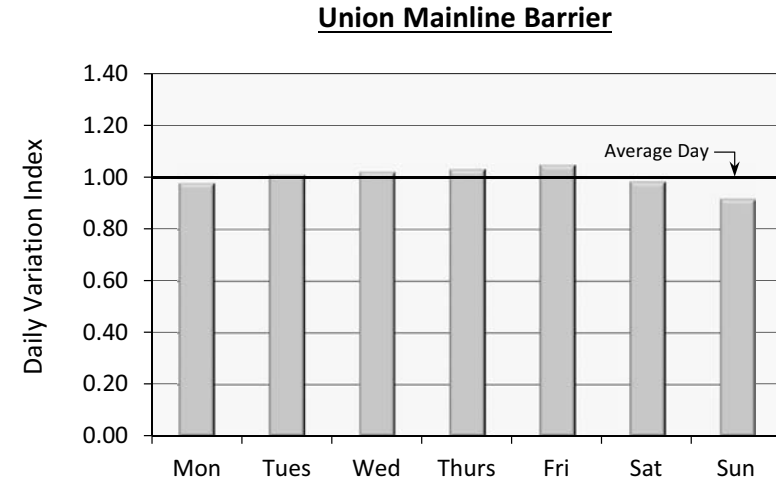
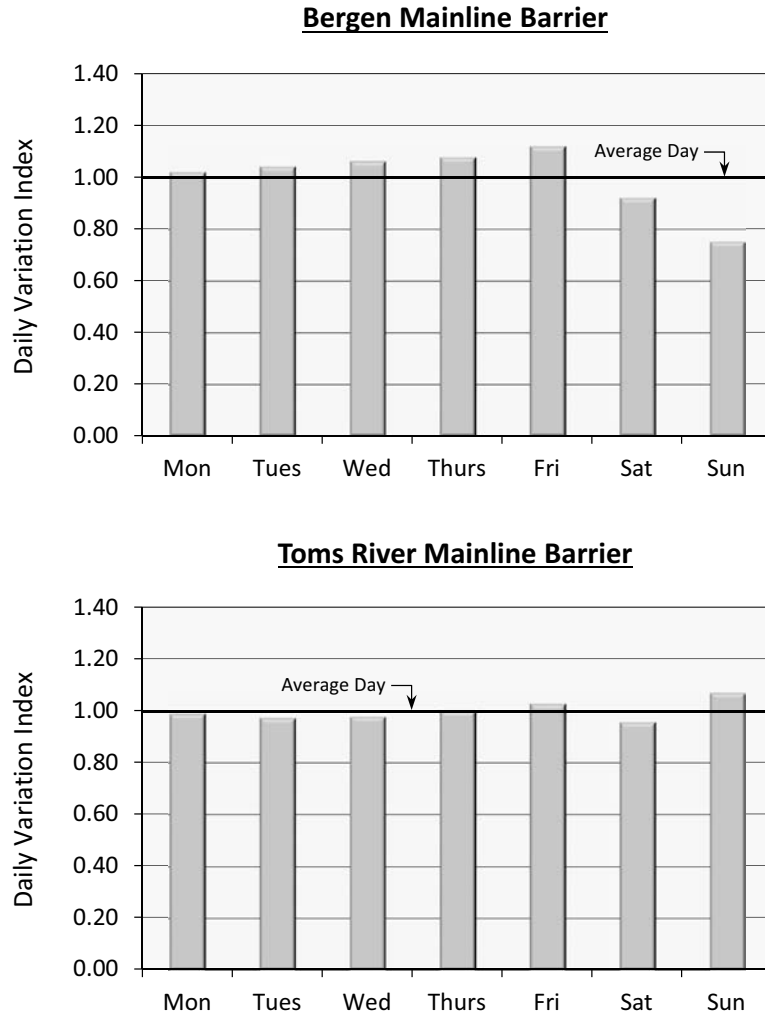


### Mainline Between Interchanges 16W and 18W



Note: Based on Two-Way Traffic Volumes.  
Source: NJTA

# New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study



Note: Based on Northbound Traffic Volumes.  
Source: NJTA

## PARKWAY: 2013 DAILY TRAFFIC VARIATIONS

FIGURE 2-11

## Chapter 3

# Historical Transaction and Toll Revenue Trends

This chapter presents historical toll transaction and toll revenue trends that have occurred on the Turnpike and Parkway and their relationships to changes in the toll rate schedule, the conversion of toll plazas on the Parkway to one-way tolling (from two-way tolling), and the economy. Both annual and monthly trend data are presented and analyzed. Annual trends in the E-ZPass market share and the vehicle class composition are also presented. Chapter 4 (Corridor Growth Analysis) will describe how the trend data was incorporated into the development of future-year growth rate estimates for toll transactions.

## Historical Changes in the Toll Schedule and Toll Collection

Toll rates were increased five times on the Turnpike and twice on the Parkway since 1991. In addition, ten mainline toll plazas on the Parkway were converted from two-way tolling to one-way tolling between 2004 and 2012. Toll collection was discontinued at four ramp toll plazas on the Parkway as part of the conversion to one-way toll collection.

### Changes in the Toll Schedule

Table 3-1 presents historical toll schedule increases, and discount program modifications on the Turnpike since 1991. The changes are shown for passenger cars and commercial vehicles, by cash and E-ZPass, and by peak and off-peak time periods. Table 3-2 presents the same information for the Parkway. Of most significance in recent years were the toll rate increases implemented in December 2008 (a 40 percent increase on the Turnpike and a 43 percent toll increase on the Parkway) and January 2012 (a 53 percent increase on the Turnpike and a 50 percent toll increase on the Parkway). The 2008 toll rate increase had a negative impact on transactions and a positive impact on toll revenue. Similarly, the 2012 toll rate increase had a negative impact on toll transactions, and a positive impact on toll revenue through 2012.

### Conversion to One-Way Tolling

Table 3-3 identifies the Parkway toll plaza locations that were affected as part of the conversion to one-way toll collection. When any toll plaza was converted from two-way to one-way tolling, toll collection was discontinued in the non-tolled direction and the toll rate was doubled in the tolled direction. The following are the general impacts on toll transactions and toll revenue due to the one-way toll conversion:

- The total number of tolled transactions at the affected toll plazas decreased by approximately half due to the discontinuation of tolling in the non-tolled direction;
- The toll rate was doubled in the remaining tolled direction at the affected toll plazas; and
- The net impact was a small reduction in total gross toll revenue due to a small reduction in toll transactions in the remaining tolled direction. The reduction in transactions in the tolled direction was due to the doubling of the toll rate.

**Table 3-1**  
**Historical Toll Schedule Changes**  
**New Jersey Turnpike**

		Percent Change in Toll Rates			
	Time	Passenger Cars		Commercial Vehicles	
Date	Period (1)	Cash	E-ZPass	Cash	E-ZPass
Scheduled Toll Increases					
3/17/1991	All	70	na	100	na
9/30/2000 (2)	Peak	20	8	13	8
	Off-peak	20	0	13	8
1/1/2003	Peak	17	10	13	8
	Off-peak	17	5	13	8
12/1/2008	All	40	40	40	40
1/1/2012	All	53	53	53	53
Discount Program Modifications					
1/1/2006 (3)	Peak	0	15	0	15
	Off-peak	0	0	0	0
7/1/2011 (4)	Peak	0	0	0	0
	Off-peak	0	33	0	0

(1) Peak hours are 7:00 - 9:00 AM and 4:30 - 6:30 PM through Friday and all day Saturday and Sunday. Off-peak hours are all other hours.

(2) E-ZPass and variable pricing were implemented on the Turnpike. A toll differential was implemented between cash and E-ZPass. Peak and off-peak hours were defined, and a toll differential implemented for E-ZPass between peak and off-peak periods.

(3) The E-ZPass discount was eliminated for cars and trucks that traveled during peak hours.

(4) The E-ZPass discount was eliminated for passenger-car non-NJ E-ZPass accounts.

Source: NJTA



**Table 3-2**  
**Historical Toll Schedule Changes**  
**Garden State Parkway**

		Percent Change in Toll Rates					
Date	Time Period (1)	Passenger Cars			Commercial Vehicles		
		Cash	Token (2)	E-ZPass	Cash	Token (2)	E-ZPass
	Scheduled Toll Increases						
12/1/2008	All	43	0	43	43	0	43
1/1/2012	All	50	na	50	50	na	50
Discount Program Modifications							
11/19/2001 (3)	All	0	0	(6)	0	0	(6)
11/18/2002 (4)	All	0	0	6	0	0	6
12/1/2008 (5)	Peak	0	0	0	0	0	0
	Off-peak	0	0	0	0	0	(5)
1/1/2009 (6)	All	0	6	0	0	6	0

(1) Peak Hours are 7:00 - 9:00 AM and 4:30 - 6:30 PM Monday through Friday and all day Saturday and Sunday. Off-peak hours are all other hours.

(2) Tokens no longer sold after January 2002, although they were still accepted for toll

(3) E-ZPass discounts were implemented on 11/19/2001. Prior to this, cash and E-ZPass rates were the same.

(4) The E-ZPass discount was discontinued.

(5) An E-ZPass discount was implemented for commercial vehicles during off-peak time periods.

(6) Tokens were no longer accepted. Customers who previously used tokens incurred a 6 percent toll increase if they paid cash.

Source: NJTA

**Table 3-3**  
**Toll Plaza Locations Impacted By**  
**The Conversion To One-Way Toll Collection**  
**Garden State Parkway**

<b>Year</b>	<b>Month</b>	<b>Milepost</b>	<b>Location (1)</b>
2004	September	124	Raritan - northbound mainline
2004	September	105	Eatontown Ramp - southbound exit
2004	September	104	Asbury Park - southbound mainline
2005	March	142	Union Ramp - southbound exit
2005	March	142	Union - southbound mainline
2005	July	151	Essex - northbound mainline
2005	December	161	Bergen - southbound mainline
2005	December	159	Saddle Brook Ramp - southbound entry
2006	January	54	New Gretna - southbound mainline
2006	January	30	Somers Point Ramp - northbound entry
2006	January	29	Great Egg - northbound mainline
2006	January	19	Cape May - southbound mainline
2007	March	69	Barnegat - northbound mainline
2010	February	166	Pascack Valley - northbound mainline

(1) The direction identified at each location is now the toll-free direction.

Source: NJTA

## Annual Toll Transaction and Toll Revenue Trends

Annual toll transaction and toll revenue data were obtained from the NJTA. Data was provided from 1990 through 2013 for the Turnpike and from 1993 through 2013 for the Parkway. Turnpike data was provided by passenger car and commercial vehicle, while the Parkway data was aggregated to total vehicles as the percent of commercial vehicles is very small. The annual trend data was analyzed to help determine the impacts associated with toll increases, the economy, roadway improvements, and other variables. This section reviews the annual trend data for the two toll facilities.

### Turnpike Trends

Turnpike transactions and gross toll revenue trends are shown in Tables 3-4 and 3-5, and Figure 3-1. As shown in Table 3-4 and Figure 3-1, total toll transactions generally increased from 1992 to 2006 despite a toll increase in 2000 and 2003. Annual transactions decreased by 0.2 percent in 2007 and 2.8 percent in 2008 largely due to the economy, and by 3.6 percent in 2009 due to the combined effects of the economy and the 40 percent toll increase implemented on December 1, 2008. In 2010 the annual Turnpike transactions increased by 0.4 percent reflecting a very gradual economic recovery, and severe winter weather in February and December. Annual toll transactions decreased

**Table 3-4**  
**Annual Toll Transaction Trends**  
**(Thousands of Vehicles)**

Calendar Year	New Jersey Turnpike						Garden State Parkway		Total System	
	Percent Change Over Prior Year		Percent Change Over Prior Year		Percent Change Over Prior Year		Percent Change Over Prior Year		Percent Change Over Prior Year	
	Commercial Vehicles		Commercial Vehicles		Commercial Vehicles		Commercial Vehicles		Commercial Vehicles	
	Cars	Year	Cars	Year	Cars	Year	All Vehicles	Year	All Vehicles	Year
1990	171,993		25,574		197,167		na		na	
1991	(1) 162,177	(5.7)	23,016	(10.0)	185,193	(6.1)	na		na	
1992	161,766	(0.3)	22,620	(1.7)	184,386	(0.4)	na		na	
1993	162,458	0.4	22,609	(0.0)	185,067	0.4	516,423		701,490	
1994	164,724	1.4	23,556	4.2	188,280	1.7	515,244	(0.2)	703,524	0.3
1995	166,734	1.2	23,641	0.4	190,375	1.1	529,420	2.8	719,795	2.3
1996	171,318	2.7	24,513	3.7	195,831	2.9	536,026	1.2	731,857	1.7
1997	177,268	3.5	25,584	4.4	202,852	3.6	557,697	4.0	760,549	3.9
1998	182,911	3.2	26,497	3.6	209,408	3.2	576,186	3.3	785,594	3.3
1999	185,556	1.4	27,595	4.1	213,151	1.8	583,348	1.2	796,499	1.4
2000	(2) 189,617	2.2	28,666	3.9	218,283	2.4	597,870	2.5	816,153	2.5
2001	199,318	5.1	29,453	2.7	228,771	4.8	609,551	2.0	838,322	2.7
2002	209,855	5.3	30,510	3.6	240,365	5.1	620,905	1.9	861,270	2.7
2003	(3) 208,472	(0.7)	31,151	2.1	239,623	(0.3)	628,287	1.2	867,910	0.8
2004	214,095	2.7	32,104	3.1	246,199	2.7	(5) 610,085	(2.9)	856,284	(1.3)
2005	214,687	0.3	32,701	1.9	247,388	0.5	(5) 502,575	(17.6)	749,963	(12.4)
2006	217,306	1.2	32,999	0.9	250,305	1.2	(5) 427,197	(15.0)	677,502	(9.7)
2007	216,625	(0.3)	33,163	0.5	249,788	(0.2)	(5) 417,464	(2.3)	667,252	(1.5)
2008	(4) 210,926	(2.6)	31,943	(3.7)	242,869	(2.8)	(4) 407,032	(2.5)	649,901	(2.6)
2009	205,366	(2.6)	28,737	(10.0)	234,103	(3.6)	396,269	(2.6)	630,372	(3.0)
2010	205,687	0.2	29,393	2.3	235,080	0.4	(5) 382,475	(3.5)	617,555	(2.0)
2011	203,627	(1.0)	29,601	0.7	233,228	(0.8)	377,891	(1.2)	611,119	(1.0)
2012	(6) 194,508	(4.5)	28,633	(3.3)	223,141	(4.3)	(6) 366,157	(3.1)	589,298	(3.6)
2013	195,208	0.4	29,277	2.2	224,485	0.6	368,915	0.8	593,400	0.7
Average Annual Percent Change:										
2008 - 2013 (5 years)		(1.5)		(1.7)		(1.6)		(1.9)		(1.8)
2003 - 2013 (10 years)		(0.7)		(0.6)		(0.7)		(5.2)		(3.7)
1998 - 2013 (15 years)		0.4		0.7		0.5		(2.9)		(1.9)
1993 - 2013 (20 years)		0.9		1.3		1.0		(1.7)		(0.8)
1993 - 2006 (13 years)		2.3		3.0		2.3		(1.4)		(0.3)

(1) Toll increase effective 3/17/1991. Refer to Table 3-1 for the details.

(2) Toll increase effective 9/30/2000. Refer to Table 3-1 for the details.

(3) Toll increase effective 1/1/2003. Refer to Table 3-1 for the details.

(4) Toll increase effective 12/1/2008. Refer to Tables 3-1 and 3-2 for the details.

(5) Toll transactions were negatively impacted due to the phased conversion to one-way tolling. Refer to Table 3-3 for a detailed schedule.

(6) Toll increase effective 1/1/2012. Refer to Tables 3-1 and 3-2 for the details.

Source: NJTA

**Table 3-5**  
**Annual Gross Toll Revenue Trends**  
 (Thousands of Dollars)

Calendar Year	New Jersey Turnpike						Garden State Parkway		Total System	
	Percent Change Over Prior Year		Percent Change Over Prior Year		Percent Change Over Prior Year		Percent Change Over Prior Year		Percent Change Over Prior Year	
	Cars	Commercial Vehicles		Total			All Vehicles		All Vehicles	
1990	\$124,364	\$64,366		\$188,730			na		na	
1991	(1) 186,046	49.6	99,592	54.7	285,638	51.3	na		na	
1992	202,825	9.0	109,710	10.2	312,535	9.4	na		na	
1993	204,098	0.6	112,422	2.5	316,520	1.3	\$167,618		\$484,138	
1994	205,138	0.5	116,653	3.8	321,791	1.7	166,891	(0.4)	488,682	0.9
1995	209,739	2.2	116,564	(0.1)	326,303	1.4	171,528	2.8	497,831	1.9
1996	215,223	2.6	121,118	3.9	336,341	3.1	172,940	0.8	509,281	2.3
1997	223,575	3.9	126,862	4.7	350,437	4.2	178,923	3.5	529,360	3.9
1998	230,585	3.1	130,247	2.7	360,832	3.0	183,927	2.8	544,759	2.9
1999	234,949	1.9	134,548	3.3	369,497	2.4	185,782	1.0	555,279	1.9
2000	(2) 246,107	4.7	145,928	8.5	392,035	6.1	190,916	2.8	582,951	5.0
2001	280,108	13.8	153,656	5.3	433,764	10.6	196,085	2.7	629,849	8.0
2002	288,100	2.9	150,942	(1.8)	439,042	1.2	194,851	(0.6)	633,893	0.6
2003	(3) 321,357	11.5	168,833	11.9	490,190	11.6	202,655	4.0	692,845	9.3
2004	329,734	2.6	177,122	4.9	506,856	3.4	(5) 208,729	3.0	715,585	3.3
2005	327,228	(0.8)	180,783	2.1	508,011	0.2	(5) 203,824	(2.3)	711,835	(0.5)
2006	348,039	6.4	185,360	2.5	533,399	5.0	(5) 203,880	0.0	737,279	3.6
2007	345,249	(0.8)	196,042	5.8	541,291	1.5	(5) 204,629	0.4	745,920	1.2
2008	(4) 345,394	0.0	195,288	(0.4)	540,682	(0.1)	(4) 206,055	0.7	746,737	0.1
2009	449,897	30.3	224,738	15.1	674,635	24.8	277,783	34.8	952,418	27.5
2010	446,045	(0.9)	227,848	1.4	673,893	(0.1)	(5) 278,273	0.2	952,166	(0.0)
2011	447,434	0.3	225,716	(0.9)	673,150	(0.1)	275,730	(0.9)	948,880	(0.3)
2012	(6) 667,987	49.3	324,034	43.6	992,021	47.4	(6) 401,639	45.7	1,393,660	46.9
2013	672,828	0.7	333,892	3.0	1,006,720	1.5	407,044	1.3	1,413,764	1.4

## Average Annual Percent Change:

2008 - 2013 (5 years)	14.3	11.3	13.2	14.6	13.6
2003 - 2013 (10 years)	7.7	7.1	7.5	7.2	7.4
1998 - 2013 (15 years)	7.4	6.5	7.1	5.4	6.6
1993 - 2013 (20 years)	6.1	5.6	6.0	4.5	5.5
1993 - 2006 (13 years)	4.2	3.9	4.1	1.5	3.3

(1) Toll increase effective 3/17/1991. Refer to Table 3-1 for the details.

(2) Toll increase effective 9/30/2000. Refer to Table 3-1 for the details.

(3) Toll increase effective 1/1/2003. Refer to Table 3-1 for the details.

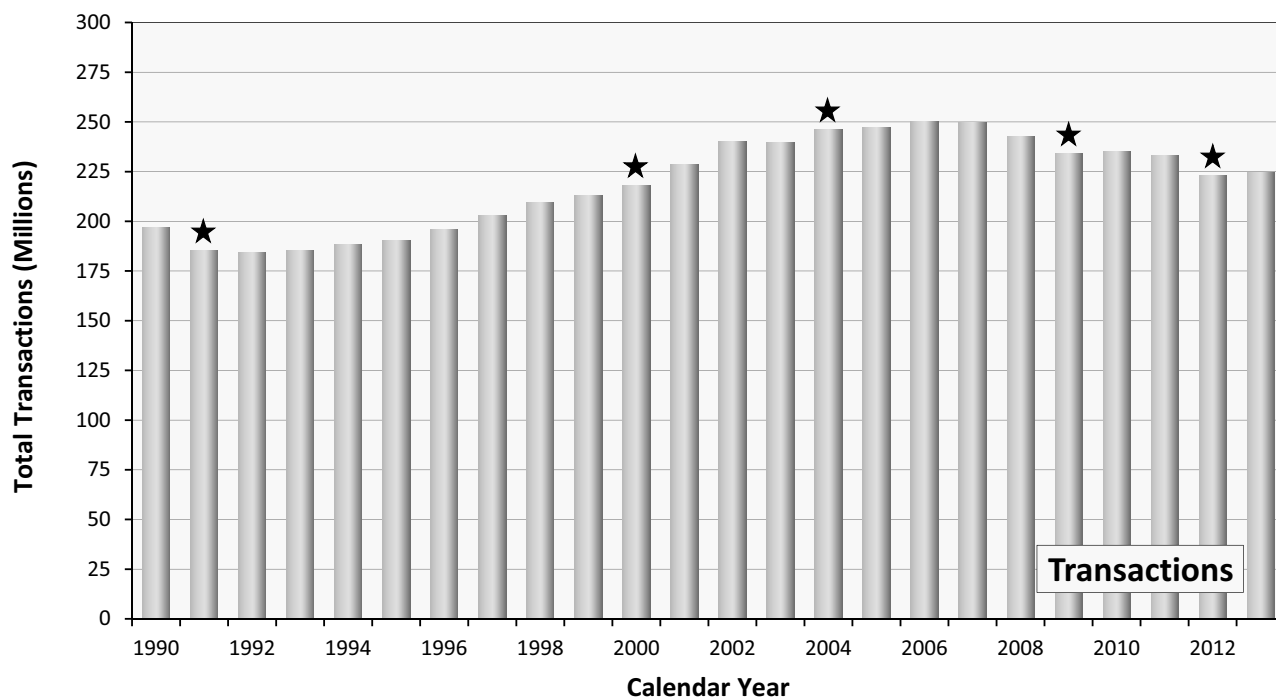
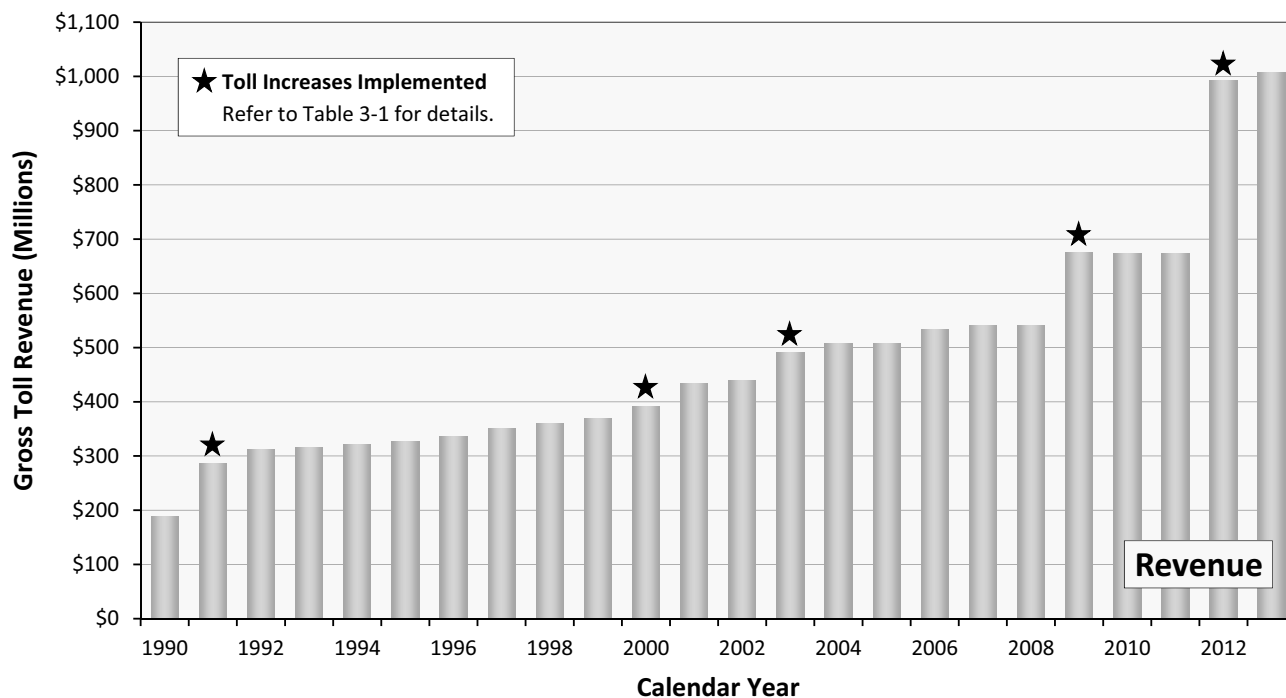
(4) Toll increase effective 12/1/2008. Refer to Tables 3-1 and 3-2 for the details.

(5) Toll transactions were negatively impacted due to the phased conversion to one-way tolling. Refer to Table 3-3 for a detailed schedule.

(6) Toll increase effective 1/1/2012. Refer to Tables 3-1 and 3-2 for the details.

Source: NJTA

# New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study



## TURNPIKE: ANNUAL TOLL TRANSACTION AND TOLL REVENUE TRENDS

by 0.8 percent in 2011 due in part to slowing economic recovery, and to severe winter weather in January and February, and Hurricane Irene in August. Total Turnpike toll transactions averaged a decrease of 1.6 percent per year in the last five years (2008 – 2013); a decrease of 0.7 percent per year in the last ten years (2003 – 2013); and an increase of 0.5 percent per year in the last 15 years (1998 – 2013). In the 13 year period from 1993 through 2006, before the onset of the recession, annual transactions increased by an average 2.3 percent per year.

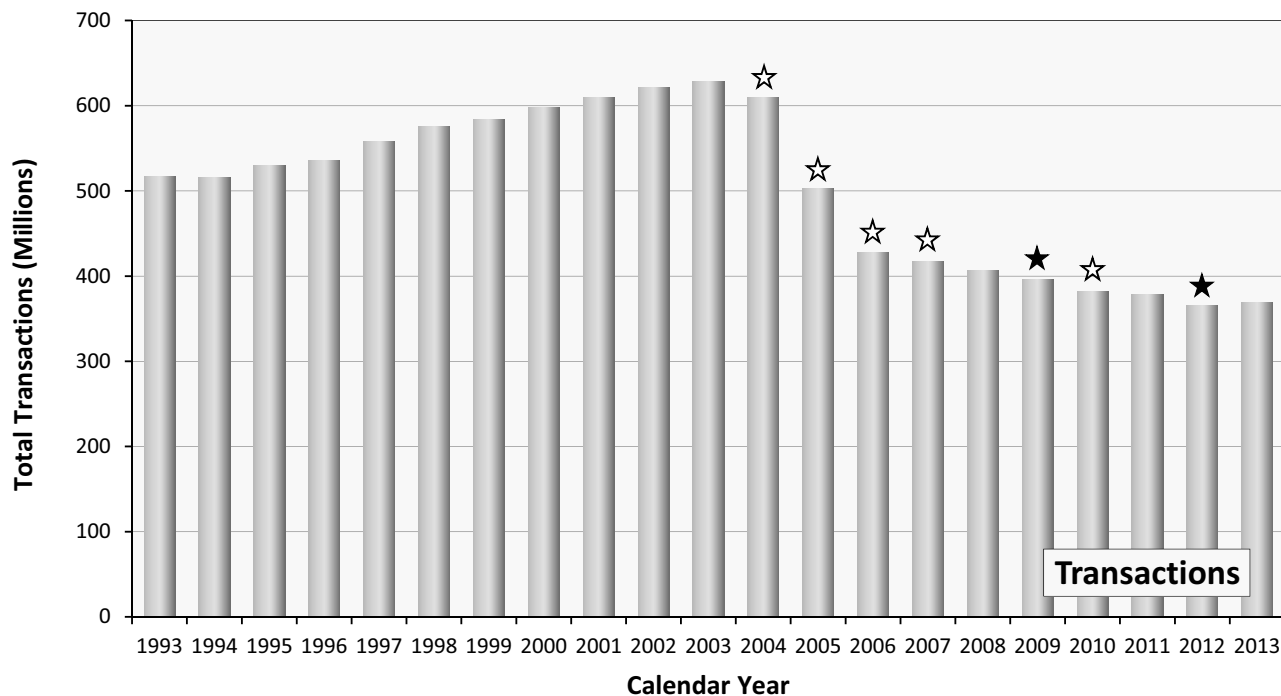
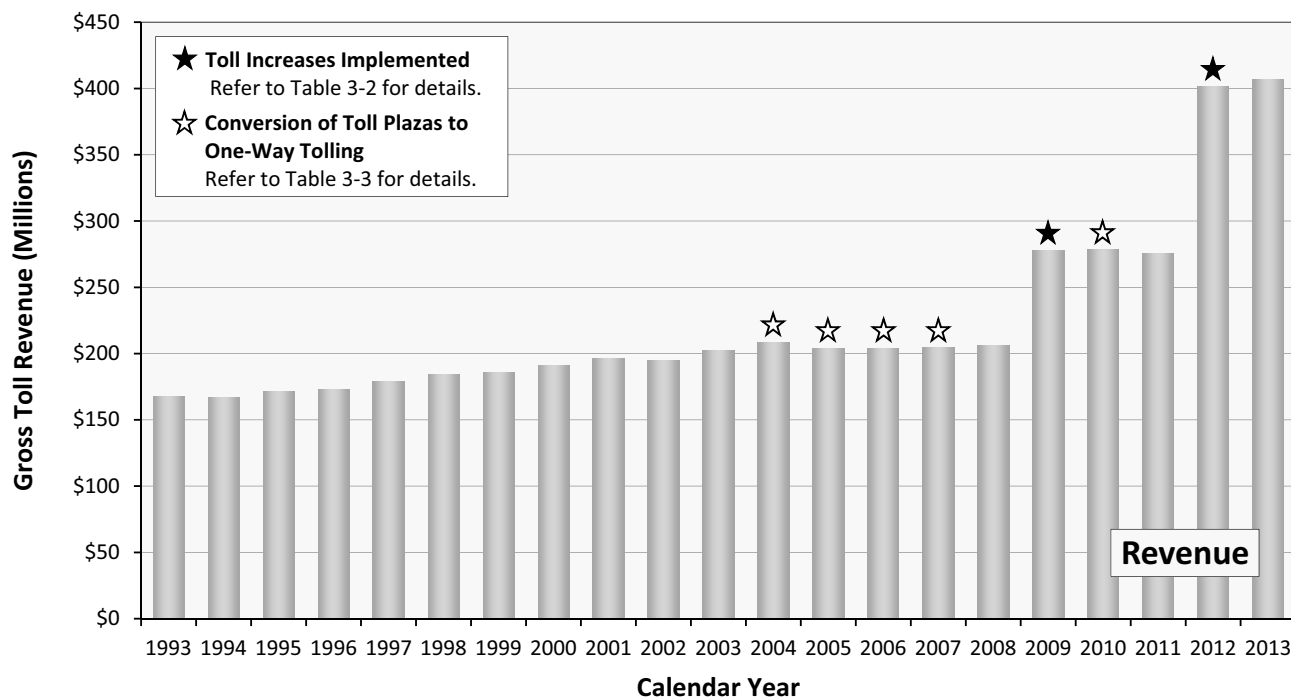
Turnpike toll revenue trends are shown in Table 3-5 and Figure 3-1. Annual Turnpike toll revenues increased every year from 1990 to 2007 due to generally increasing toll transactions and toll increases in 1991, 2000, and 2003. In 2008 toll revenue decreased by 0.1 percent due largely to the economy. Toll revenue increased by 24.8 percent in 2009 in response to the 2008 toll increase implemented on December 1, 2008. In 2010 and 2011, toll revenue decreased by 0.1 percent each year because of low or negative growth in transactions due to the economy, and also due to severe winter weather in both years, and to Hurricane Irene in August 2011. Turnpike revenue increased by 47.4 percent in 2012 primarily as a result of the toll increase implemented January 1, 2012. Turnpike revenue grew by 1.5 percent in 2013. Total Turnpike toll revenue averaged an increase of 13.2 percent per year in the last five years (2008 – 2013); an increase of 7.5 percent per year in the last ten years (2003 – 2013); and an increase of 7.1 percent per year in the last 15 years (1998 – 2013). In the 13 year period from 1993 through 2006, before the onset of the recession, annual toll revenue increased by an average 4.1 percent per year. The growth rates in toll revenue are greater than the transaction growth rates due to the toll rate increases.

### Parkway Trends

Parkway trend data is shown in Tables 3-4 and 3-5, and Figure 3-2. Annual toll transactions increased each year from 1994 to 2003. Beginning in 2004, annual toll transactions decreased every year through 2011. These decreases were due to the impacts of the conversion to one-way tolling in 2004, 2005, 2006, 2007 and 2010; a 43 percent toll increase implemented on December 1, 2008; the economic recession of 2007; severe winter events in 2010 and 2011, and Hurricane Irene in 2011. The largest impacts of the one-way toll conversion were felt in 2005 and 2006, when annual transactions decreased by 17.6 percent and 15.0 percent, respectively. Total Parkway toll transactions averaged a decrease of 1.9 percent per year in the last five years (2008 – 2013); a decrease of 5.2 percent per year in the last ten years (2003 – 2013); and a decrease of 2.9 percent per year in the last 15 years (1998 – 2013). In the 13 year period from 1993 through 2006, annual transactions decreased by an average 1.4 percent per year. From 1993 through 2003 for the 10-year period before the one-way toll conversion, transactions increased by 2.0 percent per year.

Annual Parkway toll revenue generally increased from 1994 to 2013. In 2005, annual toll revenue decreased 2.3 percent primarily due to the impacts of one-way toll conversion. From 2006 to 2008, annual toll revenue growth was very low ranging from 0.0 to 0.7 percent. This low growth was due to the conversion of toll plazas to one-way tolling, the 43 percent toll increase of 2008, and the poor economy. Overall, Parkway toll revenue has performed well as it increased by 14.6 percent per year in the last five years (2008 – 2013); increased by 7.2 percent per year in the last ten years (2003 – 2013); and increased by 5.4 percent per year in the last 15 years (1998 – 2013). In the 13 year period from 1993 through 2006, annual toll revenue increased by an average 1.5 percent per year. From 1993 through 2003, for the 10 year period prior to the one-way toll conversion, toll revenue increased by 1.9 percent per year.

# New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study



## PARKWAY: ANNUAL TOLL TRANSACTION AND TOLL REVENUE TRENDS

## Total System Trends

Of course the Total System trends reflect the activities on the Turnpike and the Parkway. Total System trend data is shown in Tables 3-4 and 3-5, and Figure 3-3. Total annual transactions increased each year from 1994 through 2003, and decreased each year from 2004 through 2012 largely due to the impacts on the Parkway associated with conversion to one-way tolling, the 2008 and 2012 toll increases implemented on the Turnpike and the Parkway, and the poor economic conditions that began in 2007, and severe weather events in 2010 and 2011. Total system transactions resumed positive growth in 2013 with an increase of 0.7 percent over 2012. Transactions on the Total System averaged a decrease of 1.8 percent per year in the last five years (2008 – 2013); a decrease of 3.7 percent per year in the last ten years (2003 – 2013); and a decrease of 1.9 percent per year in the last 15 years (1998 – 2013). In the 13 year period from 1993 through 2006, annual transactions decreased by an average 0.3 percent per year.

Total System annual toll revenue increased every year from 1993 through 2009, with the exception of 2005, when the annual toll revenue decreased by 0.5 percent. Annual toll revenue increased by 27.5 percent in 2009, primarily due to the systemwide toll increase implemented on December 1, 2008, when Turnpike toll rates increased by 40 percent and Parkway toll rates increased by 43 percent. Annual toll revenue decreased in 2010 by less than one tenth of a percent, and decreased again in 2011 by 0.3 percent. These decreases were associated with the slow economy, the impact of the conversion to one-way tolling at the Pascack Valley mainline toll plaza on the Parkway, and severe winter weather in both 2012 and 2011, and Hurricane Irene in 2011. Toll revenue increased by 46.9 percent in 2012 primarily due to the toll increases implemented on January 1, 2012. Systemwide toll revenue grew by 1.4 in 2013. Annual toll revenue on the Total System averaged an increase of 13.6 percent per year in the last five years (2008 – 2013); an increase of 7.4 percent per year in the last ten years (2003 – 2013); and increased by 6.6 percent per year in the last 15 year period (1998 – 2013).

## Monthly Toll Transaction and Toll Revenue Trends

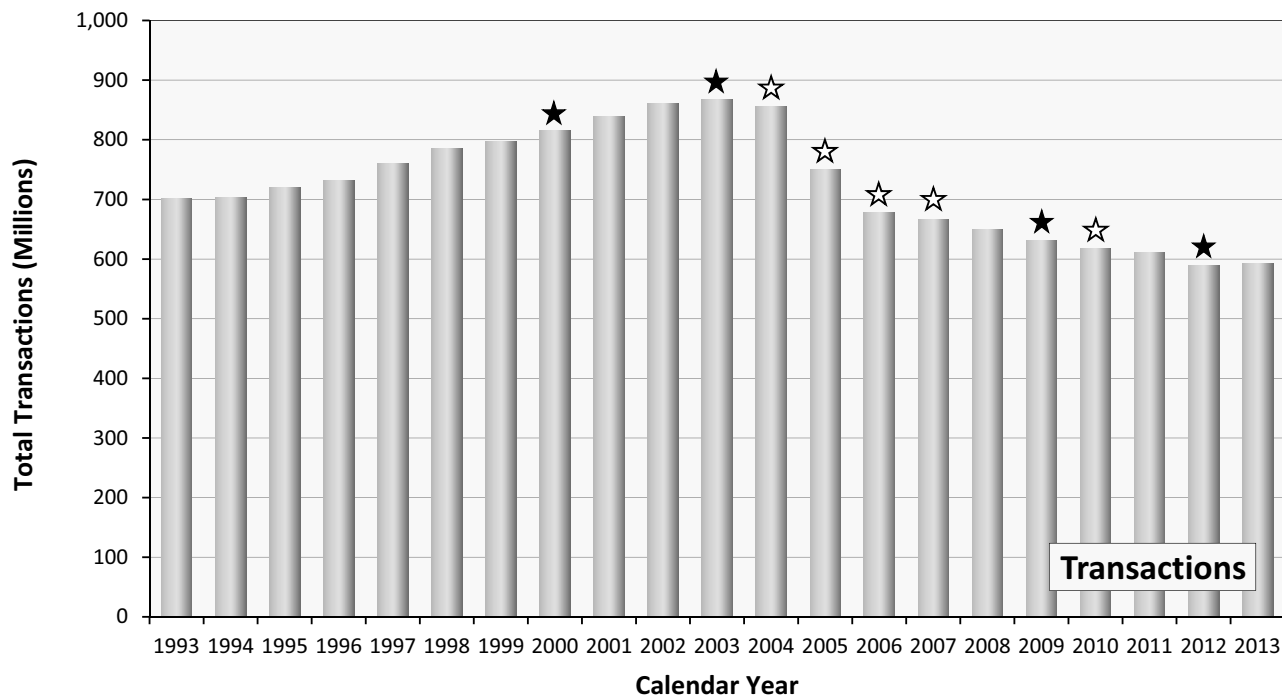
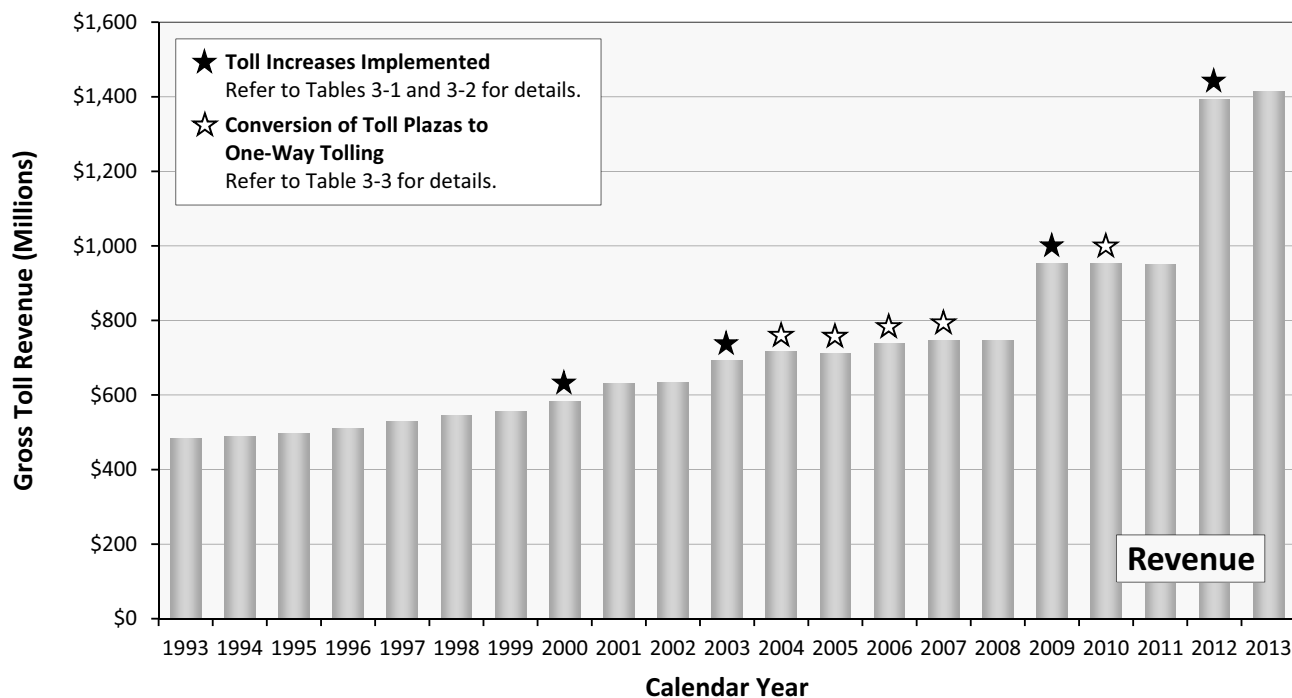
Monthly toll transaction and toll revenue trends were collected from January 2007 through March 2014, by passenger car and commercial vehicles for both the Turnpike and the Parkway. The monthly trend data was used to refine the near-term toll transaction estimates developed for the Turnpike and Parkway. The monthly estimates were also used to analyze in more detail the impacts of severe weather events which have occurred over the last several years.

## Turnpike Trends

Monthly transaction and toll revenue trends for the New Jersey Turnpike from January 2008 through March 2014 are shown in Tables 3-6 and 3-7. A 53 percent toll increase took effect in January 2012. As shown in Table 3-6, the general effect of the toll increase was a decrease in passenger car toll transactions ranging from 3.6 to 6.2 percent, though there were several additional events which resulted in impacts outside of this range; these will be discussed below. Passenger car growth in January 2012 amounted to 2.6 percent and 0.0 percent for commercial vehicles.



# New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study



## TOTAL SYSTEM: ANNUAL TOLL TRANSACTION AND TOLL REVENUE TRENDS

**Table 3-6**  
**Historical Toll Transaction Trends By Month**  
**New Jersey Turnpike**  
**(Thousands of Vehicles)**

Passenger Car Transactions													
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014
January	16,665	(7.8)	15,366	1.9	15,661	(7.1)	14,550 (3)	2.6	14,935 (6)	(0.5)	14,855	(4.4)	14,202 (3)
February	15,687 (1)	(5.6)	14,801	(11.6)	13,084 (3)	10.5	14,454 (3)	1.3	14,649 (1)	(8.4)	13,414 (3)	(4.3)	12,832 (3)
March	17,701	(5.9)	16,658	4.2	17,360	(1.4)	17,114	(4.5)	16,337	(1.9)	16,022	0.6	16,119 (9)
April	17,735	(2.3)	17,319	0.3	17,363	(1.2)	17,153	(4.8)	16,323	(0.7)	16,210		
May	18,389	(2.9)	17,858	1.9	18,193	(2.2)	17,798	(3.6)	17,164	(0.3)	17,109		
June	18,169	(2.5)	17,712	2.7	18,183	(1.5)	17,919	(4.3)	17,143	(1.6)	16,874		
July	18,640	(0.6)	18,537	0.4	18,612	(1.6)	18,317 (4)	(6.2)	17,182	1.3	17,409		
August	19,005	(2.3)	18,572	0.9	18,734	(5.5)	17,711 (5)	0.1	17,734	2.4	18,151		
September	17,109	0.6	17,213	(0.0)	17,211	(0.0)	17,206	(7.0)	16,003	2.3	16,369		
October	18,081	(1.5)	17,817	1.1	18,006	(2.9)	17,475	(10.7)	15,609 (7)	10.0	17,172		
November	16,821	0.1	16,836	0.7	16,956	(0.3)	16,904	(8.1)	15,538	2.2	15,887		
December	16,924 (2)	(1.5)	16,677	(2.1)	16,324 (3)	4.3	17,026	(6.7)	15,891	(1.0)	15,736		
Total	210,926	(2.6)	205,366	0.2	205,687	(1.0)	203,627	(4.5)	194,508	0.4	195,208		
Subtotal Jan-Mar	50,053	(6.4)	46,825	(1.5)	46,105	0.0	46,118	(0.4)	45,921	(3.5)	44,291	(2.6)	43,153
Commercial Vehicle Transactions (8)													
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014
January	2,699	(15.7)	2,274	(2.8)	2,210	1.3	2,239 (3)	(0.0)	2,238 (6)	7.9	2,415	(4.0)	2,318 (3)
February	2,468 (1)	(13.5)	2,135	(6.2)	2,002 (3)	8.3	2,169 (3)	0.6	2,181 (1)	(1.5)	2,148 (3)	(4.2)	2,057 (3)
March	2,675	(10.5)	2,394	7.7	2,578	0.1	2,581	(6.5)	2,412	(1.7)	2,371	3.7	2,458 (9)
April	2,808	(13.5)	2,428	2.8	2,495	(3.9)	2,396	(2.3)	2,341	6.5	2,492		
May	2,782	(14.3)	2,384	3.6	2,471	1.9	2,519	(0.4)	2,509	2.3	2,567		
June	2,783	(10.5)	2,491	6.4	2,651	3.4	2,742	(10.5)	2,453	(3.0)	2,379		
July	2,825	(11.3)	2,506	1.4	2,541	(4.5)	2,427 (4)	1.4	2,462	3.7	2,554		
August	2,690	(9.0)	2,448	6.7	2,613	0.3	2,620 (5)	(2.2)	2,563	1.2	2,593		
September	2,699	(8.4)	2,471	0.8	2,490	1.2	2,521	(9.6)	2,279	6.6	2,430		
October	2,790	(9.5)	2,526	1.6	2,566	(1.4)	2,529	(6.6)	2,363 (7)	13.8	2,688		
November	2,331	(1.2)	2,302	5.8	2,436	0.7	2,453	3.3	2,534	(8.9)	2,308		
December	2,393 (2)	(0.6)	2,378	(1.6)	2,340 (3)	2.8	2,405	(4.4)	2,299	1.5	2,333		
Total	31,943	(10.0)	28,737	2.3	29,393	0.7	29,601	(3.3)	28,634	2.2	29,278		
Subtotal Jan-Mar	7,842	(13.2)	6,803	(0.2)	6,790	2.9	6,989	(2.3)	6,831	1.5	6,934	(1.5)	6,833
Total Transactions													
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014
January	19,364	(8.9)	17,640	1.3	17,871	(6.1)	16,789 (3)	2.3	17,173 (6)	0.6	17,270	(4.3)	16,520 (3)
February	18,155 (1)	(6.7)	16,936	(10.9)	15,086 (3)	10.2	16,623 (3)	1.2	16,830 (1)	(7.5)	15,562 (3)	(4.3)	14,889 (3)
March	20,376	(6.5)	19,052	4.7	19,938	(1.2)	19,695	(4.8)	18,749	(1.9)	18,393	1.0	18,577 (9)
April	20,543	(3.9)	19,747	0.6	19,858	(1.6)	19,549	(4.5)	18,664	0.2	18,702		
May	21,171	(4.4)	20,242	2.1	20,664	(1.7)	20,317	(3.2)	19,673	0.0	19,676		
June	20,952	(3.6)	20,203	3.1	20,834	(0.8)	20,661	(5.2)	19,596	(1.8)	19,253		
July	21,465	(2.0)	21,043	0.5	21,153	(1.9)	20,744 (4)	(5.3)	19,644	1.6	19,963		
August	21,695	(3.1)	21,020	1.6	21,347	(4.8)	20,331 (5)	(0.2)	20,297	2.2	20,744		
September	19,808	(0.6)	19,684	0.1	19,701	0.1	19,727	(7.3)	18,282	2.8	18,799		
October	20,871	(2.5)	20,343	1.1	20,572	(2.8)	20,004	(10.2)	17,972 (7)	10.5	19,860		
November	19,152	(0.1)	19,138	1.3	19,392	(0.2)	19,357	(6.6)	18,072	0.7	18,195		
December	19,317 (2)	(1.4)	19,055	(2.1)	18,664 (3)	4.1	19,431	(6.4)	18,190	(0.7)	18,069		
Total	242,869	(3.6)	234,103	0.4	235,080	(0.8)	233,228	(4.3)	223,142	0.6	224,486		
Subtotal Jan-Mar	57,895	(7.4)	53,628	(1.4)	52,895	0.4	53,107	(0.7)	52,752	(2.9)	51,225	(2.4)	49,986

(1) Leap year - February had 29 days.

(2) A 40% toll increase was implemented on December 1, 2008.

(3) Severe winter weather events.

(4) On July 1, 2011, the off-peak discount for passenger cars with non-NJ E-ZPass was eliminated. Non-NJ E-ZPass off-peak rates increased by 33%.

(5) Hurricane Irene.

(6) A 53% toll increase was implemented on January 1, 2012.

(7) Superstorm Sandy, October 29-30, 2012

(8) Consists of Classes 2 through B3.

(9) Abnormally cold weather.

Source: NJTA

**Table 3-7**  
**Historical Gross Toll Revenue Trends By Month**  
**New Jersey Turnpike**  
**(Thousands of Dollars)**

Passenger Car Toll Revenue													
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014
January	\$25,599	29.2	\$33,074	1.0	\$33,391	(8.8)	\$30,466 (3)	62.8	\$49,592 (6)	(0.7)	\$49,246	(4.9)	\$46,857 (3)
February	24,268 (1)	30.3	31,615	(13.9)	27,216 (3)	10.6	30,104 (3)	61.1	48,486 (1)	(9.0)	44,132 (3)	(4.5)	42,128 (3)
March	28,075	27.2	35,721	2.3	36,534	(3.0)	35,424	53.8	54,497	0.9	54,997	(1.7)	54,042 (9)
April	27,802	36.9	38,060	(1.1)	37,626	(1.3)	37,125	51.9	56,384	(2.2)	55,132		
May	29,440	35.3	39,838	0.8	40,149	(4.4)	38,384	54.0	59,128	0.4	59,351		
June	28,993	33.9	38,831	1.6	39,465	(2.4)	38,518	55.2	59,766	(0.7)	59,327		
July	30,372	38.1	41,950	0.5	42,160	2.2	43,075 (4)	43.7	61,901	0.6	62,242		
August	31,926	34.2	42,850	(0.8)	42,497	(3.9)	40,846 (5)	55.8	63,656	2.8	65,468		
September	28,634	40.3	37,373	(1.1)	36,979	3.4	38,220	43.9	55,002	1.8	55,977		
October	28,206	35.1	38,110	1.6	38,734	0.7	38,997	33.2	51,928 (7)	10.7	57,502		
November	27,253	35.2	36,835	(1.0)	36,450	4.1	37,929	35.8	51,526	6.4	54,808		
December	36,826 (2)	(3.2)	35,640	(2.2)	34,844 (3)	10.1	38,346	46.4	56,121	(2.6)	54,646		
TOTAL	\$345,394	30.3	\$449,897	(0.9)	\$446,045	0.3	\$447,434	49.3	\$667,987	0.7	\$672,828		
Subtotal Jan-Mar	\$77,942	28.8	\$100,410	(3.3)	\$97,141	(1.2)	\$95,994	58.9	\$152,575	(2.8)	\$148,375	(3.6)	\$143,027
Commercial Vehicle Toll Revenue (8)													
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014
January	\$16,125	10.7	\$17,847	(3.9)	\$17,144	0.9	\$17,302	46.9	\$25,416 (6)	4.9	\$26,662	(1.7)	\$26,216 (3)
February	14,672 (1)	14.9	16,856	(7.2)	15,634 (3)	6.4	16,630	49.0	24,783 (1)	(1.6)	24,384 (3)	(4.7)	23,232 (3)
March	15,977	18.0	18,847	6.0	19,975	(1.6)	19,656	36.9	26,916	0.3	26,989	3.6	27,952 (9)
April	16,644	15.6	19,243	0.8	19,403	(3.7)	18,683	34.4	25,103	16.2	29,159		
May	16,821	11.8	18,813	2.7	19,328	1.3	19,574	46.5	28,675	2.0	29,243		
June	16,505	19.6	19,738	3.9	20,501	(2.0)	20,085	44.0	28,924	(6.7)	26,996		
July	16,869	15.7	19,517	0.4	19,598	(7.2)	18,179	58.4	28,790	(0.5)	28,641		
August	16,027	19.3	19,114	4.9	20,052	(1.2)	19,812	49.6	29,641	(0.9)	29,367		
September	16,039	20.2	19,273	1.4	19,551	(1.1)	19,332	33.9	25,892	9.4	28,313		
October	16,704	17.4	19,617	0.1	19,642	0.8	19,803	31.4	26,019 (7)	16.8	30,403		
November	14,183	27.2	18,039	5.1	18,963	(1.4)	18,695	22.4	22,878	18.7	27,164		
December	18,722 (3)	(4.7)	17,834	1.3	18,057 (3)	(0.5)	17,965	46.5	26,320	1.0	26,571		
TOTAL	\$195,288	15.1	\$224,738	1.4	\$227,848	(0.9)	\$225,716	41.5	\$319,357	4.6	\$333,892		
Subtotal Jan-Mar	\$46,774	14.5	\$53,550	(1.5)	\$52,753	1.6	\$53,588	43.9	\$77,115	1.2	\$78,035	(0.8)	\$77,400
Total Toll Revenue													
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014
January	\$41,724	22.0	\$50,921	(0.8)	\$50,535	(5.5)	\$47,768	57.0	\$75,008 (6)	1.2	\$75,908	(3.7)	\$73,073 (3)
February	38,940 (1)	24.5	48,471	(11.6)	42,850 (3)	9.1	46,734	56.8	73,269 (1)	(6.5)	68,516 (3)	(4.6)	65,361 (3)
March	44,052	23.9	54,568	3.6	56,509	(2.5)	55,080	47.8	81,413	0.7	81,986	0.0	81,993 (9)
April	44,446	28.9	57,303	(0.5)	57,029	(2.1)	55,808	46.0	81,487	3.4	84,291		
May	46,261	26.8	58,651	1.4	59,477	(2.6)	57,958	51.5	87,803	0.9	88,594		
June	45,498	28.7	58,569	2.4	59,966	(2.3)	58,603	51.3	88,690	(2.7)	86,323		
July	47,241	30.1	61,467	0.5	61,758	(0.8)	61,254 (4)	48.1	90,691	0.2	90,883		
August	47,953	29.2	61,964	0.9	62,549	(3.0)	60,658	53.8	93,297	1.6	94,835		
September	42,673	32.7	56,646	(0.2)	56,530	1.8	57,552	40.6	80,894	4.2	84,290		
October	44,910	28.5	57,727	1.1	58,376	0.7	58,800	32.6	77,947 (7)	12.8	87,905		
November	41,436	32.4	54,874	1.0	55,413	2.2	56,624	31.4	74,404	10.2	81,972		
December	55,548 (3)	(3.7)	53,474	(1.1)	52,901 (3)	6.4	56,311	46.4	82,441	(1.5)	81,217		
TOTAL	\$540,682	24.8	\$674,635	(0.1)	\$673,893	(0.1)	\$673,150	46.7	\$987,344	2.0	\$1,006,720		
Subtotal Jan-Mar	\$124,716	23.4	\$153,960	(2.6)	\$149,894	(0.2)	\$149,582	53.6	\$229,690	(1.4)	\$226,410	(2.6)	\$220,427

(1) Leap year - February had 29 days.

(2) A 40% toll increase was implemented on December 1, 2008.

(3) Severe winter weather events.

(4) On July 1, 2011, the off-peak discount for passenger cars with non-NJ E-ZPass was eliminated. Non-NJ E-ZPass off-peak rates increased by 33%.

(5) Hurricane Irene.

(6) A 53% toll increase was implemented on January 1, 2012.

(7) Superstorm Sandy, October 29-30, 2012

(8) Consists of Classes 2 through B3.

(9) Abnormally cold weather.

Source: NJTA

These outliers were largely the result of a return to normal traffic levels in January 2012 after unusually low traffic volumes in January 2011 due to severe snow storms. February 2012 growth was also slightly positive for both passenger cars and commercial vehicles. This was the result of the extra leap day in February 2012.

September 2012 transaction growth was slightly more negative than would be expected as a result of the January toll increase alone. Passenger car transactions decreased by 7.0 percent and commercial vehicles decreased by 9.6 percent. In addition to the negative impact of the toll increase, September 2012 traffic was also impacted by the fact that there were only 20 weekdays in September 2012 compared to 22 weekdays in September 2011. Weekday traffic volumes are generally greater than weekend traffic volumes, which is especially true for commercial vehicles.

Finally, two hurricane events impacted traffic growth between 2011 and 2012. Hurricane Irene occurred in August 2011. This had an abnormally negative impact on traffic volumes in 2011, thus growth in August 2012 shows a recovery from those depressed levels. As a result passenger car growth in August 2012 was actually a positive 0.1 percent and commercial vehicles decreased by only 2.2 percent despite the 53 percent toll increase.

Hurricane Sandy, which was officially downgraded to a “superstorm” by the time it reached the New Jersey coast, struck on Monday, October 29, 2012 through Tuesday, October 30, 2012. Although the Turnpike was never officially closed, toll collection was suspended on the entire facility from 5:00 PM on 10/29/2012 (Monday) through 6:30 AM on 10/31/2012 (Wednesday). Even after toll collection resumed, storm relief vehicles were permitted to travel toll-free on the Turnpike and the Parkway through 11/27/2012 (Tuesday). These vehicles included Red Cross, FEMA, tree removal, utility, etc.

Both superstorm Sandy and the 2012 toll increase negatively impacted passenger car transactions in October and November 2012. Passenger car transactions decreased by 10.7 percent in October, and by 8.1 percent in November. Commercial vehicle transactions decreased by 6.6 percent in October 2012 compared to October 2011 due in part to superstorm Sandy. However, in November, commercial vehicle transactions actually increased by 3.3 percent compared to November 2011, largely due to the influx of emergency relief vehicles in response to Sandy. Storm related impacts appear to have subsided in the month of December. December passenger car transactions decreased by 6.7 percent and commercial vehicle transactions decreased by 4.4 percent. These growth rates are more in line with months unaffected by the storm and reflect the impacts of the January 2012 toll increase.

In January 2013, passenger car transactions decreased slightly by 0.5 percent, while commercial vehicle transactions increased by 7.9 percent compared to January 2012. January 2013 was impacted by the fact that there were 23 weekdays in January 2013 compared to only 22 weekdays in January 2012. This explains, at least partially, the increase in commercial vehicle transactions compared to January 2012 since weekday traffic volumes are generally greater than weekend volumes. Passenger car transactions continued to decline in February 2013 by 8.4 percent and commercial vehicles by 1.5 percent compared to February 2012. Overall, total Turnpike transactions decreased by 7.5 percent in February 2013 compared to the prior year. This drop is largely explained by two separate events. First, February 2013 includes one less day than February 2012 (which was a leap year). The second impact is the result of winter storm Nemo which hit New Jersey, New York, and Connecticut on Friday,

February 8 and Saturday, February 9, 2013. This storm dropped one to two feet of snow on northern New Jersey and nearly three feet of snow over portions of New York and Connecticut. Given that the storm mostly impacted weekend travel, passenger car trips were much more negatively impacted than commercial vehicle trips.

March 2013 passenger car transactions declined by 1.9 percent over March 2012 and commercial vehicle transactions declined by 1.7 percent. Overall, March 2013 transactions declined by 1.9 percent, which is most likely due to one less weekday in March 2013 compared to March 2012.

April 2013 passenger car transactions decreased 0.7 percent while commercial vehicle transactions increased 6.4 percent compared to April 2012. The significant increase in commercial vehicle transactions can partially be attributed to an additional weekday in April 2013. Overall, April 2013 total transactions remained relatively flat with an increase of only 0.2 percent. The same trend continued in May 2013 during which passenger car transactions decreased 0.3 percent and commercial vehicle transactions increased 2.3 percent compared to May 2012. May 2013 total transactions remained flat with no growth over the prior year.

In June 2013, passenger car transactions decreased 1.6 percent compared to June 2012 while commercial vehicle transactions decreased by 3.0 percent. The decline in both transaction types can partially be attributed to one less weekday in June 2013 compared to June 2012. Overall, June 2013 transactions declined by 1.8 percent.

July 2013 passenger car transactions increased by 1.3 percent over July 2012 and commercial vehicle transactions increased by 3.7 percent. Overall, July 2013 total transactions increased by 1.6 percent. The same trend continued in August 2013 during which passenger car transactions increased 2.4 percent and commercial vehicle transactions increased 1.2 percent compared to August 2012. Overall, August 2013 transactions increased by 2.2 percent.

In September 2013, passenger car and commercial vehicle transactions increased by 2.3 and 6.6 percent, respectively, over September 2012. Overall, September 2013 total transactions increased by 2.8 percent.

October 2013 passenger car transactions increased by 10 percent and commercial vehicle transactions increased by 13.8 percent over October 2012. As previously mentioned, October 2012 transactions were negatively impacted by superstorm Sandy.

In November 2013, passenger car transactions increased by 2.2 percent while commercial vehicle transactions decreased by 8.9 percent compared to November 2012. November 2013 commercial vehicle transactions are significantly lower than November 2012 due to the large number of emergency vehicles on the facility after superstorm Sandy in November 2012. In addition, one less weekday in November 2013 versus November 2012 also had a negative impact on commercial transactions in 2013.

Total year end 2013 passenger car transactions increased 0.4 percent compared to 2012 levels. Commercial transactions increased by 2.2 percent over the same period. Total transactions increased by 0.6 percent in 2013 compared to 2012.

The first three months of 2014 have been negatively impacted by extreme weather. Of course, it is expected that there will always be snow and ice in the winter. During the first three months of 2014, there were 26 separate weather events that required snow plows and/or salt trucks to be dispatched. Of those 26 events, however, six were accompanied by the Governor declaring a state of emergency requesting that all non-essential trips not be made on the state roads and highways, including the Turnpike and Parkway. Two of these events were in January, three were in February, and one was in March. The negative impacts on March were less than those for January and February because there was only one such event in March and it largely occurred on a Sunday (the lowest travel day in the winter). All of the state of emergency events in January and February took place on weekdays.

Total 2014 year to date transactions declined 2.4 percent as a result of the above mentioned severe weather events. Absent the six major weather events, total Turnpike transactions would have increased by approximately 1.6 percent in the first quarter of 2014 compared to the same period in 2013.

Table 3-7 shows the corresponding monthly toll revenue growth for the Turnpike, taking into account the above mentioned toll increase, leap year, and weather events. As shown, monthly passenger car revenue growth in 2012 ranged from a low of 33.2 percent in October 2012, reflecting the impact of superstorm Sandy, to a high of 62.8 percent in January, reflecting the return to normal growth after severe weather events in January 2011. Total passenger car revenue grew by 49.3 percent in 2012 compared to 2011.

Commercial vehicle monthly revenue growth ranged from a low of 31.4 percent in October 2012 to a high of 58.4 percent in July 2012 compared to the same months in the prior year. The lower toll revenue growth in October was attributed to a decreased number of tolled commercial truck transactions due to impacts of superstorm Sandy. In addition to the negative impacts commonly associated with severe weather, commercial vehicle revenue was further reduced due to the aforementioned suspension of toll collection between 5 PM on 10/29/2012 (Monday) through 6:30 AM on 10/31/2012 (Wednesday). Total 2012 toll revenue increased by 49.3 percent for passenger cars and by 43.6 percent for commercial vehicles compared to the same period in 2011. Combined 2012 passenger car and commercial vehicle toll revenue grew by 47.4 percent over 2011 due to the impacts of the toll rate increase.

In January 2013, passenger car revenue decreased slightly by 0.7 percent while commercial vehicle revenue increased by 4.9 percent over January 2012 due to an additional weekday of transactions. Both passenger and commercial vehicle revenue declined in February 2013 by 9.0 percent and 1.6 percent, respectively, compared to February 2012. The decline in revenue can largely be attributed to the extra day of revenue collection in February 2012 due to the leap year and the effects of winter storm Nemo in 2013. Overall, total Turnpike toll revenue decreased by 6.5 percent in February 2013 compared to February 2012.

March 2013 passenger and commercial vehicle revenue remained relatively flat with slight increases of 0.9 percent and 0.3 percent, respectively, compared to March 2012. In April 2013, passenger vehicle revenue decreased by 2.2 percent while commercial vehicle revenue increased by 16.2 percent. This significant increase in commercial vehicle revenue can be partially attributed to an additional weekday in April 2013.

In May 2013, passenger car revenue was relatively flat with a slight increase of 0.4 percent compared to May 2012. Commercial vehicle revenue increased 2.0 percent during the same period. Overall, total Turnpike toll revenue increased by 0.9 percent in May 2013.

June 2013 passenger and commercial vehicle revenue declined by 0.7 percent and 6.7 percent, respectively, compared to June 2012. As previously mentioned, this decline can partially be attributed to one less weekday of revenue collection in June 2013. Total June 2013 toll revenue decreased by 2.7 percent compared to June 2012.

In July 2013, passenger car revenue increased by 0.6 percent while commercial vehicle revenue decreased slightly by 0.5 percent over July 2012. Overall, July 2013 total revenue increased by 0.2 percent. In August 2013, passenger car revenue increased by 2.8 percent over August 2012 and commercial vehicle revenue decreased by 0.9 percent. Overall, total August 2013 revenue increased by 1.6 percent over August 2012.

In September 2013, passenger car and commercial vehicle revenue increased by 1.8 and 9.4 percent, respectively, over September 2012. Overall, September 2013 total revenue increased by 4.2 percent.

October 2013 passenger car revenue increased by 10.7 percent and commercial vehicle revenue increased by 16.8 percent over October 2012 due to the negative impact of superstorm Sandy in October 2012. In November 2013, passenger car revenue increased by 6.4 percent while commercial vehicle revenue decreased by 1.4 percent compared to November 2012. As occurred with transactions, November 2012 commercial vehicle revenue was higher than normal due to the increase of emergency relief vehicles on the facility after superstorm Sandy, and November 2013 was negatively impacted by having one less weekday compared to November 2012.

Total year end 2013 passenger car toll revenue increased 0.7 percent compared to 2012 levels. Commercial toll revenue increased by 4.6 percent over the same period. Total toll revenue increased by 2.0 percent in 2013 compared to 2012.

The weather related traffic impacts discussed above for the first quarter of 2014 similarly affected toll revenue. As shown in Table 3-7, year to date passenger car revenue is down 3.6 percent, commercial vehicle revenue is down 0.8 percent, and total toll revenue is down 2.6 percent. The majority of those losses were experienced in January and February when the most extreme weather occurred.

## Parkway Trends

Tables 3-8 and 3-9 show monthly traffic and toll revenue trends for the Garden State Parkway from January 2008 to March 2014. In 2012, the Parkway shows similar patterns as the Turnpike regarding impacts due to the January 2012 toll increase, weather, and leap year.

While the Turnpike experienced a 53 percent toll increase in January 2012, the Parkway toll rates increased by 50 percent. As a result, the impact of the toll increase on Parkway traffic appears to be slightly less than on the Turnpike, particularly for passenger cars. As shown in Table 3-8, excluding those months with additional impacts due to weather, leap year, etc., the toll increase reduced monthly toll transactions for passenger cars between 2.1 and 5.6 percent compared to the same months in 2011. Corresponding growth rates for commercial vehicles ranged from negative 0.8 percent in July to negative 6.1 percent in June.

It should be noted that given the commercial vehicle restrictions on the Parkway and the resulting low volumes (less than 1.5 percent of total transactions), very small changes in the absolute commercial numbers can have relatively big (both negative and positive) percent impacts. This will be evident in the commercial vehicle traffic and revenue growth rates shown in Tables 3-8 and 3-9 for the Parkway.

As with the Turnpike, January and February show higher than expected growth due to the recovery from adverse weather in January 2011 and the extra leap day in February 2012. September 2012 growth was slightly more negative than it otherwise would have been due to two fewer weekdays in 2012 compared to 2011. August 2012 growth was higher than the surrounding months due to the recovery impact in 2012 from depressed traffic levels in August 2011 due to hurricane Irene.

Superstorm Sandy negatively impacted The Parkway in October and November. The Parkway was officially closed in both directions during the following times and locations:

- South of Exit 38 from 10:00 AM on 10/29/2012 (Monday) through 2:00 PM on 10/30/2012 (Tuesday);
- South of Exit 63 from 2:00 PM on 10/29/2012 (Monday) through 2:00 PM on 10/30/2012 (Tuesday); and
- South of Exit 129 from 4:00 PM on 10/29/2012 (Monday) through 2:00 PM on 10/30/2012 (Tuesday).

In addition, toll collection was suspended on the entire Parkway from 5:00 PM on 10/29/2012 (Monday) through 6:30 AM on 10/31/2012 (Wednesday). The suspended toll collection started earlier, at 6:00 AM on 10/29/2012, on the northbound section of the Parkway from Cape May to the Driscoll Bridge in order to facilitate evacuation efforts. As with the Turnpike, once toll collection resumed, relief vehicles were allowed to travel toll free through Tuesday, November 27, 2012.

Due in part to superstorm Sandy, Parkway passenger car transactions decreased by 9.2 percent in October 2012, and by 8.1 percent in November. Parkway commercial vehicle traffic decreased by 7.8 percent in October 2012, and increased by 13.4 percent in November 2012.



**Table 3-8**  
**Historical Toll Transaction Trends By Month**  
**Garden State Parkway**  
**(Thousands of Vehicles)**

Passenger Car Transactions													
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014
January	31,272	(8.9)	28,503	2.5	29,214	(10.6)	26,113 (4)	2.9	26,863 (6)	1.9	27,372	(6.2)	25,676 (4)
February	29,256 (1)	(4.5)	27,930	(13.3)	24,219 (3,4)	8.2	26,209 (4)	1.6	26,617 (1)	(7.1)	24,733 (3)	(4.7)	23,563 (4)
March	32,727	(5.0)	31,093	(0.7)	30,864	(0.8)	30,602	(3.6)	29,498	(1.5)	29,064	(0.1)	29,022 (9)
April	33,129	(2.4)	32,318	(3.3)	31,241	(2.8)	30,367	(3.1)	29,412	1.0	29,719		
May	35,219	(2.3)	34,396	(3.3)	33,271	(1.6)	32,746	(2.1)	32,053	(0.2)	31,979		
June	35,671	(3.2)	34,524	(1.4)	34,043	(0.6)	33,847	(2.3)	33,083	(2.2)	32,355		
July	38,086	(0.9)	37,731	(3.3)	36,498	0.1	36,542	(5.6)	34,505	0.3	34,601		
August	38,744	(3.1)	37,538	(3.2)	36,342	(6.3)	34,059 (5)	3.6	35,285	0.4	35,439		
September	33,093	0.6	33,285	(3.9)	31,995	(0.4)	31,852	(5.2)	30,182	1.9	30,764		
October	33,904	(2.9)	32,921	(3.4)	31,818	(2.3)	31,090	(9.2)	28,223 (7)	10.3	31,126		
November	31,069	(1.1)	30,714	(2.9)	29,834	(0.9)	29,573	(8.1)	27,181	5.6	28,710		
December	30,243 (2)	0.1	30,286	(6.3)	28,380 (4)	5.9	30,057	(5.4)	28,432	(1.5)	28,002		
TOTAL	402,413	(2.8)	391,239	(3.5)	377,719	(1.2)	373,057	(3.1)	361,334	0.7	363,864		
Subtotal Jan-Mar	93,255	(6.1)	87,526	(3.7)	84,297	(1.6)	82,924	0.1	82,978	(2.2)	81,169	(3.6)	78,261
Commercial Vehicle Transactions (8)													
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014
January	366	1.9	373	(13.4)	323	(1.5)	318 (4)	(0.3)	317 (6)	14.8	364	(4.9)	346 (4)
February	342 (1)	3.5	354	(13.6)	306 (3,4)	(1.6)	301 (4)	4.0	313 (1)	5.1	329 (3)	(1.2)	325 (4)
March	377	9.5	413	(11.6)	365	5.8	386	(2.8)	375	(2.1)	367	(1.4)	362 (9)
April	411	6.3	437	(6.6)	408	(3.1)	395	(1.3)	390	10.8	432		
May	428	11.2	476	(8.2)	437	5.3	460	(1.7)	452	11.1	502		
June	404	10.6	447	1.1	452	4.9	474	(6.1)	445	5.6	470		
July	413	19.9	495	(6.9)	461	3.5	477	(1.0)	472	6.6	503		
August	384	21.4	466	(4.1)	447	1.3	453 (5)	4.0	471	3.6	488		
September	378	13.8	430	(4.7)	410	2.7	421	(5.0)	400	7.0	428		
October	403	4.0	419	0.5	421	0.7	424	(7.8)	391 (7)	14.8	449		
November	334	8.7	363	4.7	380	0.0	380	13.4	431	(12.3)	378		
December	379 (2)	(5.8)	357	(3.1)	346 (4)	(0.3)	345	6.1	366	(6.0)	344		
TOTAL	4,619	8.9	5,030	(5.4)	4,756	1.6	4,834	(0.2)	4,823	4.8	5,054		
Subtotal Jan-Mar	1,085	5.1	1,140	(12.8)	994	1.1	1,005	0.0	1,005	5.5	1,060	(2.5)	1,033
Total Transactions													
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014
January	31,638	(8.7)	28,876	2.3	29,537	(10.5)	26,431 (4)	2.8	27,180 (6)	2.0	27,736	(6.2)	26,021 (4)
February	29,598 (1)	(4.4)	28,284	(13.3)	24,525 (3,4)	8.1	26,510 (4)	1.6	26,930 (1)	(6.9)	25,062 (3)	(4.7)	23,888 (4)
March	33,104	(4.8)	31,506	(0.9)	31,229	(0.8)	30,988	(3.6)	29,873	(1.5)	29,431	(0.2)	29,383 (9)
April	33,540	(2.3)	32,755	(3.4)	31,649	(2.8)	30,762	(3.1)	29,802	1.2	30,151		
May	35,647	(2.2)	34,872	(3.3)	33,708	(1.5)	33,206	(2.1)	32,505	(0.1)	32,481		
June	36,075	(3.1)	34,971	(1.4)	34,495	(0.5)	34,321	(2.3)	33,528	(2.1)	32,825		
July	38,499	(0.7)	38,226	(3.3)	36,959	0.2	37,019	(5.5)	34,978	0.4	35,104		
August	39,128	(2.9)	38,004	(3.2)	36,789	(6.2)	34,512 (5)	3.6	35,755	0.5	35,927		
September	33,471	0.7	33,715	(3.9)	32,405	(0.4)	32,273	(5.2)	30,582	2.0	31,192		
October	34,307	(2.8)	33,340	(3.3)	32,239	(2.2)	31,514	(9.2)	28,614 (7)	10.3	31,575		
November	31,403	(1.0)	31,077	(2.8)	30,214	(0.9)	29,953	(7.8)	27,612	5.3	29,088		
December	30,622 (2)	0.1	30,643	(6.3)	28,726 (4)	5.8	30,402	(5.3)	28,798	(1.6)	28,346		
TOTAL	407,032	(2.6)	396,269	(3.5)	382,475	(1.2)	377,891	(3.1)	366,157	0.8	368,918		
Subtotal Jan-Mar	94,340	(6.0)	88,666	(3.8)	85,291	(1.6)	83,929	0.1	83,983	(2.1)	82,229	(3.6)	79,292

(1) Leap year - February had 29 days.

(2) A 43% toll increase was implemented on December 1, 2008.

(3) The Pascack Valley mainline toll plaza was converted to one-way tolling, resulting in a negative impact on total toll transactions.

(4) Severe Winter weather events.

(5) Hurricane Irene.

(6) A 50% toll increase was implemented on January 1, 2012.

(7) Superstorm Sandy, October 29-30, 2012

(8) Consists of Classes 2 through B3.

(9) Abnormally cold weather.

Source: NJTA

**Table 3-9**  
**Historical Gross Toll Revenue Trends By Month**  
**Garden State Parkway**  
**(Thousands of Dollars)**

Passenger Car Toll Revenue													
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014
January	\$14,884	28.8	\$19,173	3.0	\$19,750	(7.1)	\$18,353 (4)	53.5	\$28,181 (6)	2.6	\$28,919	(5.4)	\$27,357 (3)
February	13,936 (1)	35.1	18,830	(13.1)	16,360	(3.4)	18,383 (4)	52.5	28,025 (1)	(6.8)	26,127 (3)	(4.0)	25,078 (3)
March	15,680	33.7	20,964	3.7	21,748	(1.3)	21,474	43.9	30,902	(0.1)	30,856	0.1	30,876 (9)
April	15,811	40.3	22,177	(0.5)	22,059	(2.7)	21,454	46.2	31,374	0.4	31,496		
May	16,943	37.9	23,357	1.0	23,586	(2.3)	23,043	48.7	34,261	(0.4)	34,132		
June	17,292	36.7	23,646	4.2	24,631	(2.4)	24,036	47.7	35,513	(2.1)	34,762		
July	18,659	40.3	26,181	0.8	26,385	(0.5)	26,252	42.2	37,343	0.8	37,650		
August	19,172	37.0	26,274	0.7	26,445	(6.7)	24,660 (5)	55.5	38,345	1.1	38,748		
September	16,017	42.5	22,817	0.8	23,002	(1.5)	22,664	43.8	32,587	2.4	33,360		
October	16,229	38.2	22,424	0.5	22,531	(1.2)	22,263	34.0	29,833 (7)	12.1	33,454		
November	14,909	40.4	20,930	0.9	21,128	(1.3)	20,843	36.1	28,367	8.8	30,872		
December	20,721 (2)	(0.7)	20,567	(2.7)	20,017 (4)	7.0	21,417	41.2	30,245	(1.1)	29,921		
TOTAL	\$200,253	33.5	\$267,340	0.1	\$267,642	(1.0)	\$264,842	45.4	\$384,976	1.4	\$390,297		
Subtotal Jan-Mar	\$44,500	32.5	\$58,967	(1.9)	\$57,858	0.6	\$58,210	49.6	\$87,108	(1.4)	\$85,902	(3.0)	\$83,311
Commercial Vehicle Toll Revenue (8)													
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014
January	\$444	67.8	\$745	(6.4)	\$697	1.1	\$705 (4)	53.2	\$1,080 (6)	12.1	\$1,211	(20.6) (10)	\$962 (3)
February	416 (1)	70.9	711	(11.8)	627 (3,4)	7.3	673 (4)	59.1	1,071 (1)	3.0	1,103 (3)	(17.4) (10)	911 (3)
March	463	78.8	828	(2.2)	810	6.8	865	47.6	1,277	(2.2)	1,249	(15.3) (10)	1,058 (9)
April	508	29.7	659	37.6	907	(2.0)	889	51.2	1,345	9.8	1,477		
May	524	87.6	983	0.2	985	3.8	1,022	53.2	1,566	10.6	1,732		
June	501	96.2	983	5.5	1,037	3.7	1,075	44.5	1,553	4.2	1,619		
July	514	111.1	1,085	(4.0)	1,042	4.1	1,085	55.0	1,682	4.0	1,749		
August	484	114.5	1,038	(1.8)	1,019	1.3	1,032 (5)	61.7	1,669	2.3	1,707		
September	464	103.9	946	(0.8)	938	1.2	949	49.4	1,418	4.7	1,485		
October	493	85.6	915	3.7	949	1.8	966	39.4	1,347 (7)	2.3	1,378		
November	408	93.9	791	7.8	853	(0.4)	850	66.5	1,415	(22.7)	1,094		
December	583 (2)	30.2	759	1.1	767 (4)	1.3	777	59.7	1,241	(24.0)	943		
TOTAL	\$5,802	80.0	\$10,443	1.8	\$10,631	2.4	\$10,888	53.0	\$16,664	0.5	\$16,747		
Subtotal Jan-Mar	\$1,323	72.6	\$2,284	(6.6)	\$2,134	5.1	\$2,243	52.8	\$3,428	3.9	\$3,563	(17.7)	\$2,931
Total Toll Revenue													
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change	2014
January	\$15,328	29.9	\$19,918	2.7	\$20,447	(6.8)	\$19,058 (4)	53.5	\$29,261 (6)	3.0	\$30,130	(6.0)	\$28,319 (3)
February	14,352 (1)	36.2	19,541	(13.1)	16,987 (3,4)	12.2	19,056 (4)	52.7	29,096 (1)	(6.4)	27,230 (3)	(4.6)	25,989 (3)
March	16,143	35.0	21,792	3.5	22,558	(1.0)	22,339	44.0	32,179	(0.2)	32,105	(0.5)	31,934 (9)
April	16,319	39.9	22,836	0.6	22,966	(2.7)	22,343	46.4	32,719	0.8	32,973		
May	17,467	39.3	24,340	0.9	24,571	(2.1)	24,065	48.9	35,827	0.1	35,864		
June	17,793	38.4	24,629	4.2	25,668	(2.2)	25,111	47.6	37,066	(1.8)	36,381		
July	19,173	42.2	27,266	0.6	27,427	(0.3)	27,337	42.8	39,025	1.0	39,399		
August	19,656	38.9	27,312	0.6	27,464	(6.5)	25,692 (5)	55.7	40,013	1.1	40,455		
September	16,481	44.2	23,763	0.7	23,940	(1.4)	23,613	44.0	34,005	2.5	34,845		
October	16,722	39.6	23,339	0.6	23,480	(1.1)	23,229	34.2	31,180 (7)	11.7	34,832		
November	15,317	41.8	21,721	1.2	21,981	(1.3)	21,693	37.3	29,782	7.3	31,966		
December	21,304 (2)	0.1	21,326	(2.5)	20,784 (4)	6.8	22,194	41.9	31,486	(2.0)	30,864		
TOTAL	\$206,055	34.8	\$277,783	0.2	\$278,273	(0.9)	\$275,730	45.7	\$401,639	1.3	\$407,044		
Subtotal Jan-Mar	\$45,823	33.7	\$61,251	(2.1)	\$59,992	0.8	\$60,453	49.8	\$90,536	(1.2)	\$89,465	(3.6)	\$86,242

(1) Leap year - February had 29 days.

(2) A 43% toll increase was implemented on December 1, 2008.

(3) The Pascack Valley mainline toll plaza was converted to one-way tolling, resulting in a negative impact on total toll transactions and toll revenue.

(4) Severe Winter weather events.

(5) Hurricane Irene.

(6) A 50% toll increase was implemented on January 1, 2012.

(7) Superstorm Sandy, October 29-30, 2012

(8) Consists of Classes 2 through B3.

(9) Abnormally cold weather.

(10) Beginning January 2014, NJTA changed the way it accounts for commercial vehicle discounts. This accounting change resulted in an artificial reduction in commercial revenue compared to the previous year. The lost revenue exhibited for commercial vehicles was added to the passenger car category, but due to the relatively low total value of this revenue shift, the impact is not noticeable for passenger cars.

Source: NJTA

The increase in truck traffic on the Parkway in November appears to be comprised of both toll-free recovery vehicles and tolled trucks probably involved in storm related activities such as moving personal belongings, trips to the landfill, etc. In December 2012, passenger car transactions decreased by 5.4 percent primarily reflecting the toll increase and the diminished impact of superstorm Sandy. Commercial vehicle transactions increased by 6.1 percent in December, likely due to continued above normal truck usage associated with recovery and rebuilding efforts on the New Jersey shoreline.

As shown in Table 3-8, passenger car transactions decreased by 3.1 percent on the Parkway in 2012. Commercial vehicle toll transactions decreased by 0.2 percent over the same period. Total combined toll transactions for 2012 decreased by 3.1 percent.

In January 2013, passenger car transactions increased by 1.9 percent, while commercial vehicle transactions increased by 14.5 percent compared to January 2012. This significant increase in commercial transactions is due to the additional weekday of transactions in January 2013 and the continued increase in truck usage during recovery and rebuilding efforts following superstorm Sandy.

February 2013 passenger car transactions on the Parkway decreased by 7.1 percent while commercial car transactions increased by 4.8 percent, compared to February 2012. The decline in passenger car transactions can partially be attributed to an additional day in February 2012 due to the leap year and to winter storm Nemo on February 8th and 9th. The increase in commercial vehicle transactions is most likely due to the continued truck usage on the facility during recovery and rebuilding efforts after superstorm Sandy. Of course, absent the impacts of one less travel day in February 2013 and winter storm Nemo, commercial traffic in February would have been even higher. Overall, total Parkway toll transactions decreased by 6.9 percent in February 2013 compared to February 2012.

In March 2013, both passenger car and commercial vehicle transactions declined by 1.5 percent and 2.1 percent, respectively, compared to March 2012. This is most likely due an additional weekday in March 2012. In April 2013, passenger car transactions increased by 1.0 percent and commercial vehicle transactions increased significantly by 10.8 percent. Overall, total April 2013 transactions increased 1.2 percent over April 2012. This increase can be partially attributed to an additional weekday in April 2013.

May 2013 passenger car transactions decreased by 0.2 percent while commercial vehicle transactions increased by 11.1 percent compared to May 2012. This significant increase in commercial vehicle transactions is most likely due to the continued presence of trucks on the facility during recovery and rebuilding efforts in the area. Overall, total May 2013 transactions remained relatively flat with a decline of 0.1 percent compared to May 2012.

In June 2013, passenger car transactions decreased by 2.2 percent, which can partially be attributed to one less weekday in June 2013 compared to June 2012. Commercial vehicle transactions increased by 5.6 percent over the same period. June 2013 total transactions declined by 2.1 percent compared to June 2012.

July 2013 passenger car transactions increased by 0.3 percent and commercial vehicle transactions increased by 6.3 percent compared to July 2012. Overall, July 2013 total transactions increased by 0.4

percent. In August 2013, passenger car transactions increased by 0.4 percent and commercial vehicle transactions increased by 3.6 percent. August 2013 total transactions increased 0.5 percent compared to August 2012.

In September 2013, passenger car and commercial vehicle transactions increased by 1.9 and 7.0 percent, respectively, compared to September 2012. Overall, September 2013 total transactions increased by 2.0 percent.

October 2013 passenger car transactions increased by 10.3 percent and commercial vehicle transactions increased by 14.8 percent over October 2012. This significant increase in both transaction types is due to the negative impact of superstorm Sandy on October 2012 transactions. In November 2013, passenger car transactions increased 5.6 percent while commercial vehicle transactions decreased by 12.3 percent compared to the prior year. Similar to the Turnpike, November 2012 commercial vehicle transactions on the Parkway were unusually high due to the usage of emergency relief vehicles after superstorm Sandy. The negative impact of one less weekday in 2013 versus 2012 also negatively impacted traffic.

Total year end 2013 passenger car transactions increased 0.7 percent compared to 2012 levels. Commercial transactions increased by 4.8 percent over the same period. Total transactions increased by 0.8 percent in 2013 compared to 2012.

The weather related traffic impacts discussed above for the first quarter of 2014 for the Turnpike similarly affected transaction growth on the Parkway. As shown in Table 3-8, year to date passenger car transactions are down 3.6 percent, commercial vehicle transactions are down 2.5 percent, and total transactions are down 3.6 percent. As on the Turnpike, the majority of those losses were experienced in January and February when the most extreme weather occurred. Excluding only those six weather events that resulted in a declaration of a state of emergency, traffic growth would have been approximately 0.6 percent positive instead of 3.6 percent negative in the first quarter.

Table 3-9 provides similar monthly trends for Parkway toll revenue. As shown, 2012 total passenger car toll revenue increased by 45.4 percent. Commercial vehicle toll revenue increased by 53.0 percent over the same period. Total combined Parkway toll revenue increased by 45.7 during 2012. As with the Turnpike, the majority of the increase in toll revenue is due to the January 2012 toll increase.

January 2013 toll revenue growth followed the same general trends as transaction growth compared to January 2012. The percent impact of the 2012 toll increase is not reflected in the January 2013 growth rate since the toll increase impacts are now present in both the January 2012 and 2013 revenue figures. As shown in Table 3-9, passenger car toll revenue increased by 2.6 percent while commercial vehicle toll revenue increased by 12.1 percent over January 2012.

In February 2013, passenger car toll revenue decreased by 6.8 percent while commercial vehicle toll revenue increased by 3.0 percent, compared to February 2012. Toll revenue growth followed the same general trends as transaction growth for the same period. Total combined Parkway toll revenue in February 2013 decreased by 6.4 percent compared to February 2012.

In March 2013, passenger car and commercial vehicle toll revenue declined by 0.2 percent and 2.2 percent, respectively, compared to March 2012. This is most likely due to the additional weekday in March 2012. Passenger car toll revenue in April 2013 increased by 0.4 percent and commercial vehicle toll revenue also increased by 9.8 percent. Overall, April 2013 toll revenue increased by 0.8 percent over the prior year. This can be partially attributed to an additional weekday in April 2013.

May 2013 passenger car toll revenue decreased by 0.4 percent while commercial vehicle toll revenue increased by 10.6 percent, compared to May 2012. Toll revenue growth followed the same general trends as transaction growth for the same period. Total combined Parkway toll revenue in May 2013 remained relatively flat with slight growth of 0.1 percent.

In June 2013, passenger car toll revenue decreased by 2.1 percent and commercial vehicle toll revenue increased by 4.2 percent, compared to June 2012. These are also the same general trends seen in transaction growth during the same period. Overall, total toll revenue in June 2013 declined by 1.8 percent compared to June 2012.

July 2013 passenger car toll revenue increased by 0.8 percent and commercial vehicle toll revenue increased 4.0 percent compared to July 2012. Overall, total toll revenue in July 2013 increased by 1.0 percent. Passenger car toll revenue in August 2013 increased by 1.1 percent and commercial vehicle toll revenue increased by 2.3 percent compared to August 2012. Overall, August 2013 total toll revenue increased 1.1 percent.

In September 2013, passenger car and commercial vehicle toll revenue increased by 2.4 and 4.7 percent, respectively, over September 2012. Overall, total toll revenue in September 2013 increased 2.5 percent compared to September 2012.

October 2013 passenger car revenue increased by 12.1 percent and commercial vehicle revenue increased by 2.3 percent over October 2012, which is due to the negative impact that superstorm Sandy had on October 2012 revenue. In November 2013, passenger car revenue increased by 8.8 percent while commercial vehicle revenue decreased by 22.7 percent. This significant decline in commercial vehicle revenue can largely be attributed to the unusually high commercial vehicle revenue in November 2012 during superstorm Sandy relief efforts, along with one less weekday in November 2013.

Total year end 2013 passenger car toll revenue increased 1.4 percent compared to 2012 levels. Commercial toll revenue increased by 0.5 percent over the same period. Total toll revenue increased by 1.3 percent in 2013 compared to 2012.

The weather related traffic impacts discussed above for the first quarter of 2014 similarly affected toll revenue. As shown in Table 3-9, year to date passenger car revenue is down 3.0 percent, commercial vehicle revenue is down 17.7 percent, and total toll revenue is down 3.6 percent. The majority of those losses were experienced in January and February when the most extreme weather occurred. As footnoted in Table 3-9, the percent change in commercial revenue in 2014 over 2013 is not a realistic measure.

Beginning in January 2014, the methodology for accounting for toll discounts was revised on the Parkway to better reflect actual experience. Beginning in January 2014 a slightly higher percentage of the discounts were attributed to commercial vehicles, thus reducing their revenue and increasing, by an equal amount, passenger car revenue. Due to the extremely low volume of commercial traffic and revenue on the Parkway, the positive impact of this accounting change is negligible on passenger cars, but substantial on commercial vehicles. These accounting changes had no impact on total toll revenue, thus the comparison between 2014 and 2013 total toll revenue (a decrease of 3.6 percent) is an accurate measure of real change between those two years.

## Total System Trends

Table 3-10 shows monthly toll revenue trends for both of the Authority's roadways from January 2008 to March 2014. As shown, total combined toll revenue increased by 46.4 percent in 2012 over 2011, a result of January 2012 toll increase. On a systemwide basis, it is estimated that the impacts of superstorm Sandy reduced total toll revenue by about \$15 million in 2012. Absent the impact, total toll revenue would have increased by about 48.5 percent in 2012 compared to 2011.

Total system toll revenue increased by 1.8 percent between 2012 and 2013. During the first three months of 2014 total NJTA toll revenue has declined by 2.9 percent compared to the same period in 2013. As discussed above in detail, this decrease is entirely due to severe winter weather that resulted in a state of emergency being declared for six separate events. Absent those six events, total revenue growth would have been about 1.0 percent (positive) during the first three months of 2014.

## Annual Trends in E-ZPass Market Share

E-ZPass percent market shares of toll transactions for the Turnpike, Parkway and Total System are shown in Table 3-11. The market shares are provided by passenger car and commercial vehicle for the Turnpike from 2003 through 2013, and by all vehicles for the Parkway and the Total System from 2007 through 2013. In addition, the percentage point change in market share from the prior year is also provided.

**Table 3-10**  
**Historical Gross Toll Revenue Trends By Month**  
**Total of All Vehicle Classes**  
**(Thousands of Dollars)**

<b>New Jersey Turnpike</b>												
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change
January	\$41,724	22.0	\$50,921	(0.8)	\$50,535	(5.5)	\$47,768 (3)	57.0	\$75,008 (6)	1.2	\$75,908	(3.7)
February	38,940	(1)	24.5	48,471	(11.6)	42,850 (3)	9.1	46,734 (3)	56.8	73,269 (1)	(6.5)	68,516 (3)
March	44,052	23.9	54,568	3.6	56,509	(2.5)	55,080	47.8	81,413	0.7	81,986	0.0
April	44,446	28.9	57,303	(0.5)	57,029	(2.1)	55,808	46.0	81,487	3.4	84,291	0.9
May	46,261	26.8	58,651	1.4	59,477	(2.6)	57,958	51.5	87,803	0.9	88,594	(2.7)
June	45,498	28.7	58,569	2.4	59,966	(2.3)	58,603	51.3	88,690	0.2	90,883	1.6
July	47,241	30.1	61,467	0.9	61,758	(3.0)	61,254 (4)	48.1	90,691	4.2	94,835	12.8
August	47,953	29.2	61,964	(0.2)	62,549	1.8	57,552	40.6	80,894	10.2	81,972	(1.5)
September	42,673	28.5	57,727	1.1	58,376	2.2	56,624	31.4	74,404	10.2	81,972	(1.5)
October	44,910	32.4	54,874	(1.1)	52,901 (3)	6.4	56,311	46.4	82,441	10.2	81,972	(1.5)
November	41,436	(2)	(3.7)	53,474	(0.1)	\$673,893	(0.1)	\$673,150	46.7	\$987,344	2.0	\$1,006,720
December	55,548	24.8	\$674,635	(2.6)	\$149,894	(0.2)	\$149,582	53.6	\$229,690	(1.4)	\$226,410	(2.6)
TOTAL	\$540,682	23.4	\$153,960	(2.6)	\$149,894	(0.2)	\$149,582	53.6	\$229,690	(1.4)	\$226,410	(2.6)
Subtotal Jan-Mar	\$124,716	23.4	\$153,960	(2.6)	\$149,894	(0.2)	\$149,582	53.6	\$229,690	(1.4)	\$226,410	(2.6)
<b>Garden State Parkway</b>												
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change
January	\$15,328	29.9	\$19,918	2.7	\$20,447	(6.8)	\$19,058 (4)	53.5	\$29,261 (11)	3.0	\$30,130	(6.0)
February	14,352	(1)	36.2	19,541	(13.1)	16,987 (10,3)	12.2	19,056 (4)	52.7	29,096 (1)	(6.4)	27,230 (3)
March	16,143	35.0	21,792	3.5	22,558	(1.0)	22,339	44.0	32,179	(0.2)	32,105	(0.5)
April	16,319	39.9	22,836	0.6	22,966	(2.7)	22,343	46.4	32,719	0.8	32,973	0.1
May	17,467	39.3	24,340	0.9	24,571	(2.2)	24,065	48.9	35,827	(1.8)	36,381	1.0
June	17,793	38.4	24,629	4.2	25,668	(0.3)	25,111	47.6	37,066	1.1	40,455	2.5
July	19,173	42.2	27,266	0.6	27,427	(6.5)	25,692 (5)	55.7	40,013	1.1	40,455	2.5
August	19,656	38.9	27,312	0.7	23,940	(1.4)	23,613	44.0	34,005	11.7	34,832	7.3
September	16,481	44.2	23,763	0.6	23,480	(1.1)	23,229	34.2	31,180 (13)	11.7	31,966	(2.0)
October	16,722	41.8	21,721	1.2	21,981	(1.3)	21,693	37.3	29,782	7.3	31,966	(2.0)
November	15,317	0.1	21,326	(2.5)	20,784 (3)	6.8	22,194	41.9	31,486	(2.0)	30,864	(2.0)
December	21,304	34.8	\$277,783	0.2	\$278,273	(0.9)	\$275,730	45.7	\$401,639	1.3	\$407,044	1.3
TOTAL	\$206,055	33.7	\$61,251	(2.1)	\$59,992	0.8	\$60,453	49.8	\$90,536	(1.2)	\$89,465	(3.6)
Subtotal Jan-Mar	\$45,823	33.7	\$61,251	(2.1)	\$59,992	0.8	\$60,453	49.8	\$90,536	(1.2)	\$89,465	(3.6)
<b>NJTA System Total</b>												
Month	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011	Percent Change	2012	Percent Change	2013	Percent Change
January	\$57,052	24.2	\$70,839	0.2	\$70,982	(5.9)	\$66,826 (3,4)	56.0	\$104,269 (6,11)	1.7	\$106,038	(4.4)
February	53,292	(1)	27.6	68,012	(12.0)	59,837 (10,3)	9.9	65,790 (3,4)	55.6	102,365 (1)	(6.5)	95,746 (3)
March	60,195	26.9	76,360	3.5	79,067	(2.1)	77,419	46.7	113,592	0.4	114,091	(0.1)
April	60,765	31.9	80,139	(0.2)	79,995	(2.3)	78,151	46.1	114,206	2.7	117,264	0.7
May	63,728	30.2	82,991	1.3	84,048	(2.4)	82,023	50.7	123,630	(2.4)	124,458	0.4
June	63,291	31.5	83,198	0.5	85,634	(0.7)	83,714	50.2	125,756	1.5	135,290	3.7
July	66,414	33.6	88,733	0.8	89,185	(4.1)	88,591 (4)	41.6	114,899	12.5	122,737	9.4
August	67,609	35.9	80,409	1.0	81,856	1.2	78,317	33.0	104,186	11.7	113,938	(1.6)
September	61,632	35.0	76,595	(1.5)	73,685 (3)	6.5	78,505	45.1	113,927	11.7	113,938	(1.6)
October	56,753	(2.7)	74,800	(0.0)	\$952,166	(0.3)	\$948,880	46.4	\$1,388,983	1.8	\$1,413,764	1.8
November	76,852	27.5	\$952,418	(2.5)	\$209,886	0.1	\$210,035	52.5	\$320,226	(1.4)	\$315,875	(2.9)
December	76,852	26.2	\$215,211	(2.5)	\$209,886	0.1	\$210,035	52.5	\$320,226	(1.4)	\$315,875	(2.9)
TOTAL	\$746,737	27.5	\$952,418	(2.5)	\$209,886	0.1	\$210,035	52.5	\$320,226	(1.4)	\$315,875	(2.9)
Subtotal Jan-Mar	\$170,539	26.2	\$215,211	(2.5)	\$209,886	0.1	\$210,035	52.5	\$320,226	(1.4)	\$315,875	(2.9)

(1) Leap year - February had 29 days.

(2) A 40% toll increase was implemented on December 1, 2008.

(3) Severe winter weather events.

(4) On July 1, 2011, the off-peak discount for passenger cars with non-NJ E-ZPass was eliminated. Non-NJ E-ZPass off-peak rates increased by 33%.

(5) Hurricane Irene.

(6) A 53% toll increase was implemented on January 1, 2012.

(7) Consists of Classes 2 through B3.

(8) The Barnegat mainline toll plaza was converted to one-way tolling, resulting in a negative impact on total toll transactions and toll revenue.

(9) A 43% toll increase was implemented on December 1, 2008.

(10) The Pascack Valley mainline toll plaza was converted to one-way tolling, resulting in a negative impact on total toll transactions and toll revenue.

(11) A 50% toll increase was implemented on January 1, 2012.

(12) Superstorm Sandy, October 29-30, 2012

(13) Abnormally cold weather.

Source: NJTA

**Table 3-11**  
**Historical Trends in E-ZPass Market Share**  
**Of Toll Transactions**

Calendar Year	Turnpike			Parkway	Total System
	Passenger Cars	Commercial Vehicles	All Vehicles	All Vehicles	All Vehicles
<b>Percent E-ZPass Market Share</b>					
2003	60.2 %	66.8 %	61.1 %	na	na
2004	63.5	69.7	64.3	na	na
2005	65.5	74.7	66.7	na	na
2006	67.4	76.7	68.6	na	na
2007	69.0	78.0	70.2	65.7 %	67.4 %
2008	70.9	80.0	72.1	67.7	69.4
2009	72.3	81.5	73.5	70.6	71.7
2010	73.5	81.8	74.6	71.4	72.6
2011	75.5	83.0	76.4	72.5	74.0
2012	78.1	86.5	79.2	75.7	77.0
2013	79.5	88.2	80.6	77.2	78.5
<b>Net Change In Percentages</b>					
2003	--	--	--	--	--
2004	3.3	2.9	3.2	na	na
2005	2.0	5.0	2.4	na	na
2006	1.8	2.0	1.9	na	na
2007	1.6	1.3	1.6	na	na
2008	1.9	2.0	1.9	2.0	2.0
2009	1.5	1.5	1.4	2.9	2.3
2010	1.2	0.2	1.1	0.8	0.9
2011	1.9	1.2	1.9	1.1	1.4
2012	2.6	3.5	2.8	3.2	3.0
2013	1.4	1.7	1.4	1.5	1.5

Source: NJTA

The E-ZPass market shares increased from 60.2 percent in 2003 to 79.5 percent in 2013 for passenger-car transactions on the Turnpike. Commercial-vehicle transactions had an E-ZPass market share of 66.8 percent in 2003, increasing to 88.2 percent in 2013. Parkway E-ZPass market share



increased from 65.7 percent in 2007 to 77.2 percent in 2013. Total System E-ZPass market share increased from 67.4 percent to 78.5 percent in the same time period.

Currently passenger cars do not receive any automatic discount for E-ZPass usage on the Parkway. Trucks (classes 2 – 6) receive an automatic E-ZPass discount of about 5.0 percent off the cash rate for travel in off-peak periods. On the Turnpike, passenger-car E-ZPass customers receive an automatic discount for trips made during off-peak hours. The net discount varies depending on the particular trip. For a through trip, the passenger-car discount is 25 percent. Trucks using E-ZPass on the Turnpike also receive an automatic discount from the cash rate, totaling about 9 percent for a through trip any time of the day, and about 13 percent for a trip during off-peak hours. These current toll differentials do offer a financial incentive to use E-ZPass instead of cash.

On January 1, 2008, tolls increased by 40 percent on the Turnpike and 43 percent on the Parkway, substantially increasing the actual toll differential between cash and E-ZPass. In 2008 and 2009 the E-ZPass passenger-car transactions increased by 1.9 percentage points and 1.5 percentage points respectively on the Turnpike in response to the 2008 toll increase. The rate of increase declined to 1.2 percentage points in 2010, and then increased by 1.9 percentage points in 2011. The toll increase implemented on January 1, 2012 further increased the actual toll differential between cash and E-ZPass. The increased differential contributed to unusually high E-ZPass market share growth in 2012 demonstrated by an increase of 2.6 percentage points amongst Turnpike passenger car transactions. E-ZPass market increased again in 2013 by 1.4 percentage points amongst Turnpike passenger car transactions, representing a return to normal growth. Similar patterns are seen for the Turnpike commercial transactions and the Parkway transactions. This analysis of the E-ZPass market share trends helped develop future year estimates of E-ZPass penetration rates.

## Annual Trends in Vehicle Class Distribution

The percent of commercial-vehicle transactions on the Turnpike and Parkway have remained quite stable over the last ten years, as has their share of the gross toll revenue. As seen in Table 3-12, commercial-vehicle toll transactions on the Turnpike ranged from a high of 13.9 percent of total toll transactions in 2006 and 2007 to a low of 12.7 percent in 2011. Their share of the gross toll revenue ranged from a high of 36.5 percent of total toll revenue in 2008 to a low of 32.6 percent in 2010. On the Parkway, commercial-vehicle toll transactions ranged from a high of 1.4 percent of total transactions in 2004 and 2013 to 1.1 percent in 2006 through 2008. Their share of gross toll revenue was also very consistent ranging from a high of 4.1 percent of total gross toll revenue to a low of 1.1 percent. Since 2008, the Parkway commercial-vehicle share ranged from 2.8 percent to 4.1 percent. It should be noted that in 2007 the Parkway modified their vehicle class definitions to match the Turnpike's. This change impacted how transactions were divided into passenger car and commercial vehicle transactions from 2008 onward.

**Table 3-12**  
**Annual Trends in Commercial Vehicle Distribution**  
**By Toll Transactions and Toll Revenue**

<b>Calendar Year</b>	<b>Toll Transactions</b>			<b>Gross Toll Revenue</b>		
	<b>Turnpike</b>	<b>Parkway</b>	<b>Total System</b>	<b>Turnpike</b>	<b>Parkway</b>	<b>Total System</b>
2004	13.7 %	1.4 %	4.9 %	35.4 %	1.4 %	25.7 %
2005	13.8	1.3	5.5	36.0	3.5	26.9
2006	13.9	1.1	5.8	35.0	1.1	25.8
2007 (1)	13.9	1.1	5.9	35.5	1.1	26.2
2008	13.8	1.1	5.9	36.5	2.8	27.3
2009	12.9	1.3	5.6	33.7	3.3	24.8
2010	12.8	1.2	5.7	32.6	3.4	24.0
2011	12.7	1.3	5.6	33.9	3.2	24.9
2012	12.8	1.3	5.7	32.7	4.1	24.4
2013	13.0	1.4	5.8	33.2	4.1	24.8

Note: Commercial Vehicles are defined as vehicle classes 2-6 and B1 and B2.

(1) Parkway changed their class structure to match Turnpike in 2007.

Source: NJTA

## Chapter 4

# Corridor Growth Analysis

Economic forecasts are often seen as one of the key sources of uncertainty in the forecasting process. Consequently, for any toll transaction and toll revenue projection, including those for the New Jersey Turnpike Authority (NJTA) Total System, the economic growth forecast is one of the critical input data elements. The purpose of this chapter is two-fold: 1) to provide a description of the historical and forecasted trends in the study area socioeconomics; and, 2) to describe the methodological approach and findings of the econometric growth analysis.

The socioeconomic trends analysis entailed a comprehensive data collection effort that included gathering a host of different pertinent variables from a variety of public and private sources, as well as supplemental on-the-ground observations and meetings with regional planners and other local officials who work on or follow socioeconomic forecasts and developments in the study area.

The econometric analysis consisted of statistically testing, selecting, and applying correlative relationships between the appropriately weighted socioeconomic variables and the historical toll transactions on the Turnpike and Parkway, and deriving forecasts of medium-term transaction growth on the two toll roads. Details pertaining to the two tasks follow in the sections below.

## Socioeconomic Historical Trends and Forecasts

An evaluation of socioeconomic trends and forecasts for the geographies along and surrounding the Turnpike and Parkway corridors was conducted for this analysis. Such trends and forecasts serve as inputs to the regression-based demand growth analysis. Subsections below provide a summary of various demographic and economic measures reviewed for this study, including total population, employment, real retail sales, and real gross regional product (GRP). Additional trend information is provided regarding monthly unemployment rates and monthly retail gasoline prices.

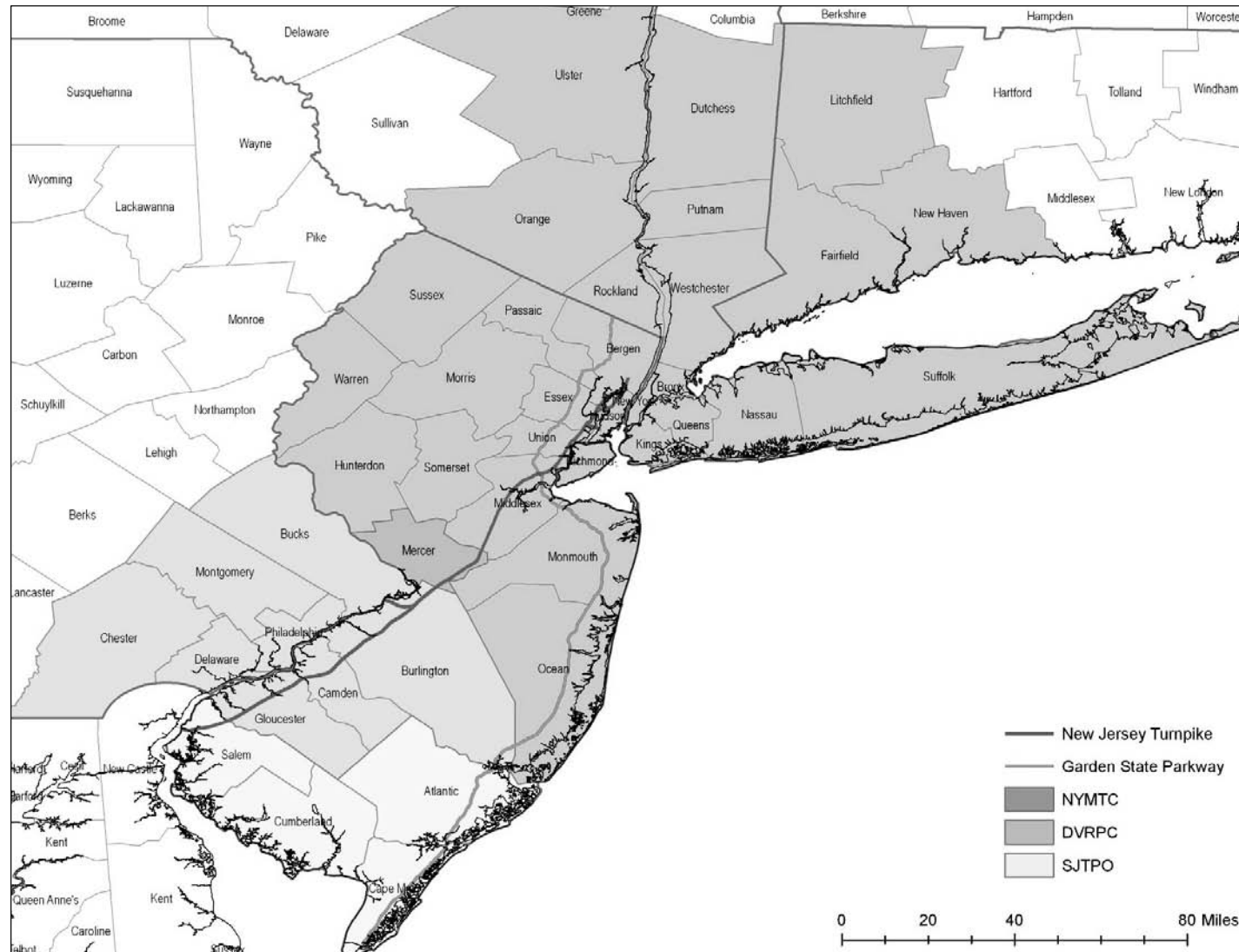
A socioeconomic trend analysis was conducted in order to identify potential explanatory factors that may have influenced historical variations in toll transactions. Identification of such historically-influencing socioeconomic explanatory factors is necessary to produce a demand growth forecast that accounts for the unique nature of the Turnpike and Parkway usage. Socioeconomic trend data were applied within a regression-based analysis to derive demand growth projections.

In the subsequent tables, the socioeconomic growth rates are presented in average annual percentage change (AAPC) terms, reported in five-year increments from 1995 through 2025. In regards to the geographic coverage, New Jersey State is presented along with the metropolitan areas of New York City and Philadelphia, as well as the southeastern section of the State, and the entire Nation. County compositions of the respective sub-State and metropolitan areas are included within footnotes in the presented tables and a map of the respective areas is depicted in Figure 4-1.

## Population Historical Trends and Forecasts

Historical population data were obtained from the United States Census Bureau (census years and intercensal estimates) and forecast population growth data were obtained from various other public

## New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study



and private sector sources, depending on the geographic focus. As presented below in Table 4-1, forecasted population growth rates were culled from both locally-available sources and the Woods & Poole Economics, Inc. 2014 Complete Economic and Demographic Data Source (CEDDS)<sup>1</sup>.

**Table 4-1**  
**Population Trends and Forecasts (AAPC, %)**

Area	1995 - '00	2000 - '05	2005 - '10	2010 - '15	2015 - '20	2020- '25	1995 - '10	2010 - '25
<b>Metro NYC</b> <sup>1</sup>	0.8	0.3	0.3	0.5	0.4	0.5	0.5	0.5
<b>Metro Philadelphia</b> <sup>2</sup>	0.3	0.4	0.4	0.3	0.4	0.6	0.4	0.4
<b>Southeastern NJ</b> <sup>3</sup>	0.6	0.7	0.3	0.4	0.6	0.5	0.5	0.5
<b>New Jersey</b> <sup>4</sup>	0.8	0.6	0.3	0.5	0.5	0.5	0.6	0.5
<b>United States</b>	1.1	1.0	0.9	0.9	1.0	1.0	1.0	0.9

Geographies and Sources:

<sup>1</sup> Metro NYC as defined by NYMTC included the following counties: Fairfield Co., CT; Litchfield Co., CT; New Haven Co., CT; Bergen Co., NJ; Essex Co., NJ; Hudson Co., NJ; Hunterdon Co., NJ; Mercer Co., NJ; Middlesex Co., NJ; Monmouth Co., NJ; Morris Co., NJ; Ocean Co., NJ; Passaic Co., NJ; Somerset Co., NJ; Sussex Co., NJ; Union Co., NJ; Warren Co., NJ; Bronx Co., NY; Dutchess Co., NY; Kings Co., NY; Nassau Co., NY; New York Co., NY; Orange Co., NY; Putnam Co., NY; Queens Co., NY; Richmond Co., NY; Rockland Co., NY; Suffolk Co., NY; Sullivan Co., NY; Ulster Co., NY; and, Westchester Co., NY

<sup>2</sup> Metro Philadelphia as defined by DVRPC includes the following counties: Burlington Co., NJ; Camden Co., NJ; Gloucester Co., NJ; Mercer Co., NJ; Bucks Co., PA; Chester Co., PA; Delaware Co., PA; Montgomery Co., PA; and, Philadelphia Co., PA

<sup>3</sup> Southeastern NJ as defined by SJTPO includes the following counties: Atlantic Co., NJ; Cape May Co., NJ; Cumberland Co., NJ; and, Salem Co., NJ

<sup>4</sup> New Jersey Statewide: includes an aggregation of all 21 NJ counties

Sources: Years 1995 to 2010 reflect United States Census data; MPO area forecasts are based on the respective MPO sources; New Jersey Statewide is based on the aggregation of pertinent MPO sources; National forecasts are based on Woods & Poole.

New Jersey counties' and metropolitan areas' population growth rates were obtained from the respective regional Metropolitan Planning Organizations (MPOs), and are generally available through year 2040. Metropolitan New York City (comprised of counties in CT, NY, and NJ) population forecast data are from the New York Metropolitan Transportation Council (NYMTC), and North Jersey Transportation Planning Authority (NJTPA), and are available in five-year forecast increments. Metropolitan Philadelphia population data are from Delaware Valley Regional Planning Commission (DVRPC) in five-year increments, and the Southeastern New Jersey counties are from the South Jersey Transportation Planning Organization (SJTPO) in ten-year increments. Population forecasts for the entire State of New Jersey are the aggregation of the constituent forecasts for the combined 21 counties in the State, from the respective metropolitan forecast sources. National data is presented for comparative purposes, with the forecasts from the Woods and Poole dataset.

As shown in Table 4-1, population growth rates in the areas pertinent to the Turnpike and Parkway are lower relative to the population growth in the Nation as a whole, for both the historical trends and

<sup>1</sup> Source: Woods & Poole Economics, Inc. Washington, D.C. Copyright 2014. Woods & Poole does not guarantee the accuracy of this data. The use of this data and the conclusion drawn from it are solely the responsibility of the Consultant.

forecasts. Historically, the resident population in New Jersey has annually increased by about 0.6 percent on average from 1995 through 2010. Metropolitan Philadelphia resident population growth has historically been below the average annual growth rates observed in the other two NJ/NYC areas presented in this sub-section. For comparative purposes, historical population growth in the United States averaged about 1.0 percent per year over the same fifteen-year period.

It is interesting to note that, as depicted in Table 3-4, traffic growth on the Total System grew by 1.4 percent per annum (on average) between 1995 and 2010 – a considerably stronger growth rate than the observed population growth for the geographies surrounding the system, and also despite toll increases that occurred during that timeframe. A divergence between average annual historical resident population growth and traffic growth demonstrates that the Total System has likely attracted an increasing share of travel in the corridor geographies.

Future resident population growth along the Total System study area is forecast to remain at the relatively low historical levels. As exhibited, projections average close to 0.5 percent per annum over the coming decade plus. While similar to the recent historical trends, this rate would remain below the expected population growth for the Nation, which, on average, is projected to be 0.9 percent per annum through 2025.

### **Employment and Unemployment Historical Trends and Forecasts**

The employment trend is exhibited in Table 4-2. Historical data are from the United States Bureau of Labor Statistics from 1995 through 2010, and the future growth rates are based on either locally-sourced or Woods & Poole data, depending on geography. Metropolitan NYC forecast employment data are available in five-year increments from NYMTC and NJTPA, and the Southeast NJ from SJTPO in ten-year increments; while the employment forecast data for the Metropolitan Philadelphia area are from the DVRPC. As such, the employment forecast data for the Nation as a whole are sourced from the Woods & Poole database.

Historical employment growth rates exhibit similar trends for the presented geographies, with a relatively robust employment growth in the late '90s, followed by a deceleration in the subsequent five years through 2005, and with negative growth exhibited in the five historical years from 2005 to 2010. Of late, the stagnation or negative growth rates in the five years from 2005 to 2010 are reflective of the economic downturn realized during the recent recession, which officially began in late 2007. Comparatively, the United States has also exhibited historical employment growth deceleration through the recent decade; although, similarly to population trends, the overall employment growth rates were somewhat higher for the Nation than for the New Jersey areas.

**Table 4-2**  
**Employment Trends and Forecasts (AAPC, %)**

Area	1995 - '00	2000 - '05	2005 - '10	2010 - '15	2015 - '20	2020 - '25	1995 - '10	2010 - '25
<b>Metro NYC</b> <sup>1</sup>	1.7	0.4	(0.2)	0.8	1.1	1.1	0.6	1.0
<b>Metro Philadelphia</b> <sup>2</sup>	1.0	0.5	(0.4)	0.9	1.3	1.3	0.4	1.1
<b>Southeastern NJ</b> <sup>3</sup>	1.9	0.8	(1.3)	0.1	1.1	1.1	0.5	0.7
<b>New Jersey</b> <sup>4</sup>	1.4	0.4	(0.5)	0.7	1.0	1.0	0.4	0.9
<b>United States</b>	1.9	0.7	(0.4)	1.2	1.3	1.3	0.7	1.3

Geographies and Sources:

<sup>1</sup> Metro NYC as defined by NYMTC included the following counties: Fairfield Co., CT; Litchfield Co., CT; New Haven Co., CT; Bergen Co., NJ; Essex Co., NJ; Hudson Co., NJ; Hunterdon Co., NJ; Mercer Co., NJ; Middlesex Co., NJ; Monmouth Co., NJ; Morris Co., NJ; Ocean Co., NJ; Passaic Co., NJ; Somerset Co., NJ; Sussex Co., NJ; Union Co., NJ; Warren Co., NJ; Bronx Co., NY; Dutchess Co., NY; Kings Co., NY; Nassau Co., NY; New York Co., NY; Orange Co., NY; Putnam Co., NY; Queens Co., NY; Richmond Co., NY; Rockland Co., NY; Suffolk Co., NY; Sullivan Co., NY; Ulster Co., NY; and, Westchester Co., NY

<sup>2</sup> Metro Philadelphia as defined by DVRPC includes the following counties: Burlington Co., NJ; Camden Co., NJ; Gloucester Co., NJ; Mercer Co., NJ; Bucks Co., PA; Chester Co., PA; Delaware Co., PA; Montgomery Co., PA; and, Philadelphia Co., PA

<sup>3</sup> Southeastern NJ as defined by SJTPO includes the following counties: Atlantic Co., NJ; Cape May Co., NJ; Cumberland Co., NJ; and, Salem Co., NJ

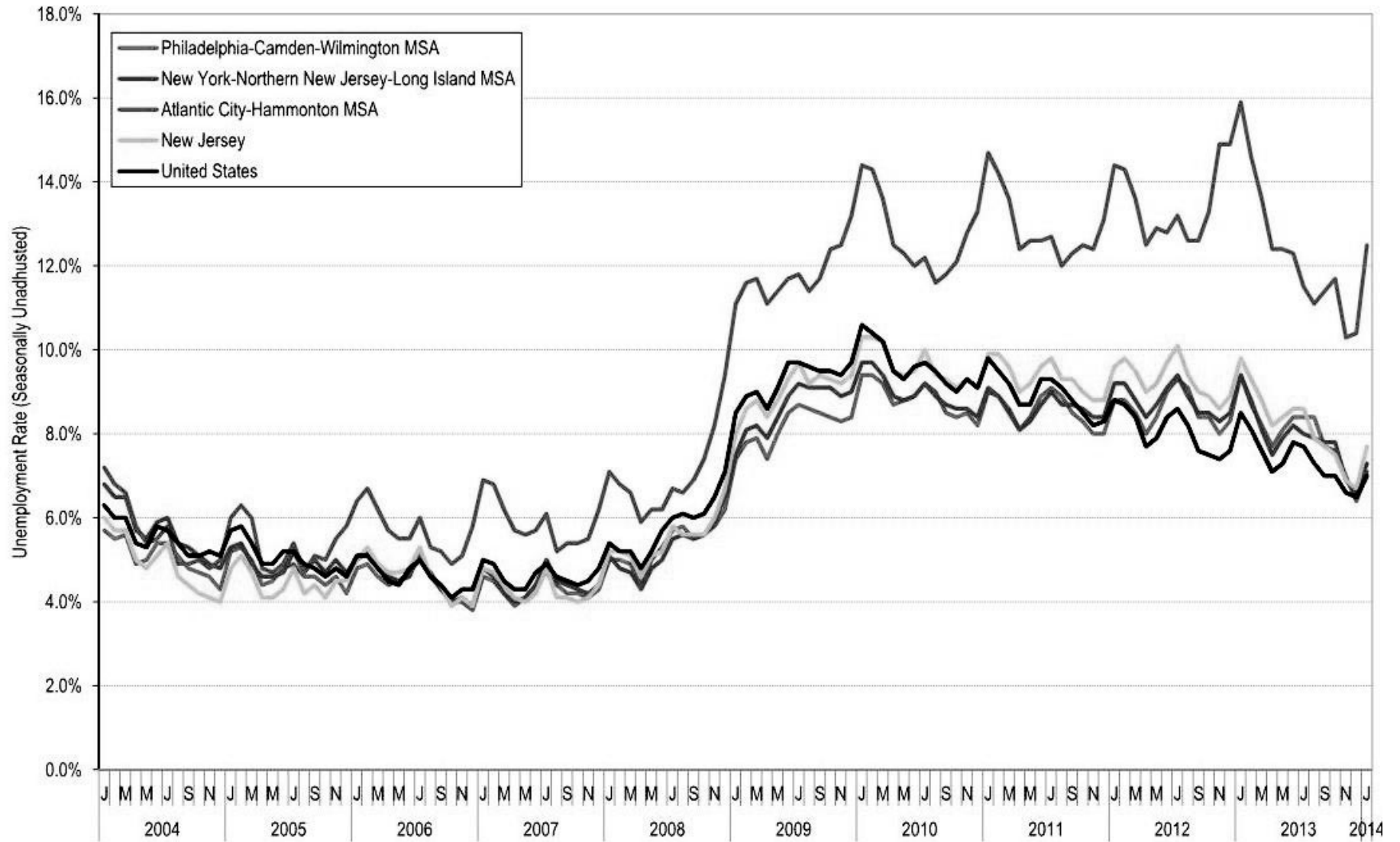
<sup>4</sup> New Jersey Statewide: includes an aggregation of all 21 NJ counties

Sources: Years 1995 to 2010 reflect Bureau of Labor Statistics (BLS) data; MPO area forecasts are based on the respective MPO sources; New Jersey Statewide is based on the aggregation of pertinent MPO sources; National forecasts are based on Woods & Poole.

The recently observed stagnant employment trends within the last decade are not expected to continue indefinitely. In fact, in most of the study area, employment started turning back into the positive growth trajectory, albeit slow, in 2010. Employment growth across all pertinent geographies is forecasted to rebound positively in the future, with AAPC for the 2010 through 2025 timeframe amounting to 0.9 percent for New Jersey, and 1.3 percent per annum for the United States.

Figure 4-2 depicts seasonally-unadjusted monthly unemployment rates over the last decade, spanning the months from January 2004 through January 2014, for the major Metropolitan Statistical Areas (MSA) in and around New Jersey that are located along or near the Turnpike and Parkway corridors: Philadelphia-Camden-Wilmington, New York-Northern New Jersey-Long Island, and Atlantic City-Hamilton. In addition, unemployment rate data are also included pertaining to the entire State of New Jersey and for the United States. Given that the data is seasonally-unadjusted, the graph depicts both the cyclical seasonal variations, as well as the longer-term trends.

Unemployment rates for the entire State of New Jersey, the New York City MSA, and the Philadelphia MSA have generally tracked closely with those for the Nation. They were all around 5 percent to 6 percent earlier in the past decade during the pre-recession years. The unemployment rates in those areas then spiked closer to 10 percent in 2009, and have since gradually come down to near 7 percent by the end of 2013. Atlantic City-Hamilton MSA has historically exhibited higher unemployment than either the State of New Jersey or the Nation, and since the recession, it has continuously remained considerably higher than the other MSAs presented. In fact, the unemployment rate for that





Metro Area has been in the double digits for about 5 years, and was still around 16 percent as recently, as in the beginning of 2013.

As the Nation continues to recover from the recent severe economic recession, the unemployment rates are expected to slowly decline and eventually stabilize over the long-term around mid-single digit rates (though short-term volatility will invariably occur, resulting in divergence from any long-term stabilizing trend).

### **Retail Sales Historical Trends and Forecasts**

Retail sales trends and forecast are presented below in Table 4-3. Both New Jersey and the metropolitan areas along the two Corridors exhibit similar patterns of AAPC for real retail sales (both historically and forecasted). Since 1995, real retail sales growth for those geographies was about 1.5 percent per annum. During that timeframe the change in real retail sales varied from strong growth of around 4.0 percent per year in the late 1990s to negative 1.5 percent per year between 2005 and 2010. In comparison, the United States as a whole has observed the corresponding historical real retail sales growth higher than the geographies surrounding the Turnpike and Parkway corridors, with real growth of 1.8 percent per year.

While growth in real retail sales is projected to rebound somewhat relative to the most recent historical decade, the forecast is not expected to approach the relatively stronger historical growth observed during the late 1990s. Over the period from 2010 through 2025, real retail sales in the Corridors area are projected to grow by 1.7 percent per annum. In comparison, real retail sales in the United States are projected to grow by 2.2 percent per annum during the same period.

### **Real Gross Regional Product (GRP) Historical Trends and Forecasts**

Another fundamental economic indicator that has bearing on traffic demand is gross regional product (or gross state product/gross domestic product, depending on the geographic focus). Historical and forecast rates of growth for real GRP are shown in Table 4-4. National real gross domestic product has historically decelerated from an annual average rate of 4.5 percent in the late 1990s to 2.7 percent over the first five years of the new millennium, to just 0.8 percent in the five years between 2005 and 2010. As with the other macroeconomic metrics presented, the deceleration within the last five years is reflective of the recent severe economic recession. New Jersey's real gross state product growth also decelerated similarly over the same period from 3.5 percent in the late 1990s to 2.1 percent per annum in the subsequent five years and then to barely positive 0.4 percent per annum recently. Metropolitan NYC and Philadelphia exhibited similar average growth rates since 1995, about 0.5 percent above the New Jersey's annual average, while Southeastern New Jersey experienced substantially slower than the other geographies in the study area at less than one percent per year on average. Similarly to the trends observed in the other variables already presented, the State and the surrounding metropolitan areas exhibit growth patterns that generally parallel the Nation's in terms of recent deceleration, but at levels below the United States as a whole.

**Table 4-3**  
**Retail Sales Trends and Forecasts (AAPC, %)**

Area	1995 - '00	2000 - '05	2005 - '10	2010 - '15	2015 - '20	2020 - '25	1995 - '10	2010 - '25
<b>Metro NYC</b> <sup>1</sup>	4.2	2.4	(1.1)	2.1	1.4	1.4	1.8	1.7
<b>Metro Philadelphia</b> <sup>2</sup>	3.8	2.0	(1.3)	2.1	1.5	1.5	1.5	1.7
<b>Southeastern NJ</b> <sup>3</sup>	4.2	2.8	(1.4)	2.0	1.5	1.5	1.8	1.7
<b>New Jersey</b> <sup>4</sup>	4.1	1.9	(1.6)	2.1	1.5	1.5	1.4	1.7
<b>United States</b>	4.1	2.1	(0.9)	2.6	2.0	2.0	1.8	2.2

Geographies and Sources:

<sup>1</sup> Metro NYC as defined by NYMTC included the following counties: Fairfield Co., CT; Litchfield Co., CT; New Haven Co., CT; Bergen Co., NJ; Essex Co., NJ; Hudson Co., NJ; Hunterdon Co., NJ; Mercer Co., NJ; Middlesex Co., NJ; Monmouth Co., NJ; Morris Co., NJ; Ocean Co., NJ; Passaic Co., NJ; Somerset Co., NJ; Sussex Co., NJ; Union Co., NJ; Warren Co., NJ; Bronx Co., NY; Dutchess Co., NY; Kings Co., NY; Nassau Co., NY; New York Co., NY; Orange Co., NY; Putnam Co., NY; Queens Co., NY; Richmond Co., NY; Rockland Co., NY; Suffolk Co., NY; Sullivan Co., NY; Ulster Co., NY; and, Westchester Co., NY

<sup>2</sup> Metro Philadelphia as defined by DVRPC includes the following counties: Burlington Co., NJ; Camden Co., NJ; Gloucester Co., NJ; Mercer Co., NJ; Bucks Co., PA; Chester Co., PA; Delaware Co., PA; Montgomery Co., PA; and, Philadelphia Co., PA

<sup>3</sup> Southeastern NJ as defined by SJTPO includes the following counties: Atlantic Co., NJ; Cape May Co., NJ; Cumberland Co., NJ; and, Salem Co., NJ

<sup>4</sup> New Jersey Statewide: includes an aggregation of all 21 NJ counties

Source: Woods & Poole, CEDDS 2014

**Table 4-4**  
**Gross Regional Product Trends and Forecasts (AAPC, %)**

Area	1995 - '00	2000 - '05	2005 - '10	2010 - '15	2015 - '20	2020 - '25	1995 - '10	2010 - '25
<b>Metro NYC</b> <sup>1</sup>	4.5	2.1	1.2	1.7	2.0	2.0	2.6	1.9
<b>Metro Philadelphia</b> <sup>2</sup>	3.6	2.7	1.2	1.5	1.8	1.8	2.5	1.7
<b>Southeastern NJ</b> <sup>3</sup>	1.1	2.7	(1.2)	1.4	1.9	2.0	0.9	1.8
<b>New Jersey</b> <sup>4</sup>	3.5	2.1	0.4	1.6	2.0	2.0	2.0	1.9
<b>United States</b>	4.5	2.7	0.8	2.1	2.2	2.3	2.7	2.2

Geographies and Sources:

<sup>1</sup> Metro NYC as defined by NYMTC included the following counties: Fairfield Co., CT; Litchfield Co., CT; New Haven Co., CT; Bergen Co., NJ; Essex Co., NJ; Hudson Co., NJ; Hunterdon Co., NJ; Mercer Co., NJ; Middlesex Co., NJ; Monmouth Co., NJ; Morris Co., NJ; Ocean Co., NJ; Passaic Co., NJ; Somerset Co., NJ; Sussex Co., NJ; Union Co., NJ; Warren Co., NJ; Bronx Co., NY; Dutchess Co., NY; Kings Co., NY; Nassau Co., NY; New York Co., NY; Orange Co., NY; Putnam Co., NY; Queens Co., NY; Richmond Co., NY; Rockland Co., NY; Suffolk Co., NY; Sullivan Co., NY; Ulster Co., NY; and, Westchester Co., NY

<sup>2</sup> Metro Philadelphia as defined by DVRPC includes the following counties: Burlington Co., NJ; Camden Co., NJ; Gloucester Co., NJ; Mercer Co., NJ; Bucks Co., PA; Chester Co., PA; Delaware Co., PA; Montgomery Co., PA; and, Philadelphia Co., PA

<sup>3</sup> Southeastern NJ as defined by SJTPO includes the following counties: Atlantic Co., NJ; Cape May Co., NJ; Cumberland Co., NJ; and, Salem Co., NJ

<sup>4</sup> New Jersey Statewide: includes an aggregation of all 21 NJ counties

Source: Woods & Poole, CEDDS 2014

Future real GRP growth rates are estimated to average 2.2 percent for the United States, from 2010 through 2025, per annum, with New Jersey averaging about a 1.9 percent real increase per year. In the surrounding areas, similarly to the entire State, the real GRP growth is projected to be 1.7 to 1.9 percent per annum.

### Gasoline Prices

Another factor that can influence travel demand is the price of gasoline. Figure 4-3 depicts the monthly average nominal price per gallon of regular/conventional unleaded retail gasoline over the last few years from the first month of 2012 through March 2014. Data are shown for the United States, the Central Atlantic region (including New Jersey)<sup>2</sup>, and New York City. Between these regions, price variation is relatively narrow, with less than about a \$0.10 to \$0.20 per gallon differential in any given month.

The recent fuel forecasts from the Energy Information Administration (EIA) call for stabilization and slight declines in the prices of gasoline and diesel fuel at the national level through the end of 2015.

The annual transaction and gross toll revenue forecasts for the Turnpike and Parkway take into account the short-term gasoline and diesel price forecasts presented in Figure 4-3. The forward-looking transaction and gross toll revenue forecasts, from 2014 through 2023, indirectly reflect assumptions on transportation costs. Forecasts of economic variables used in the econometric modeling, such as retail sales, gross regional product, and employment take into account assumptions on future trends on transportation costs.

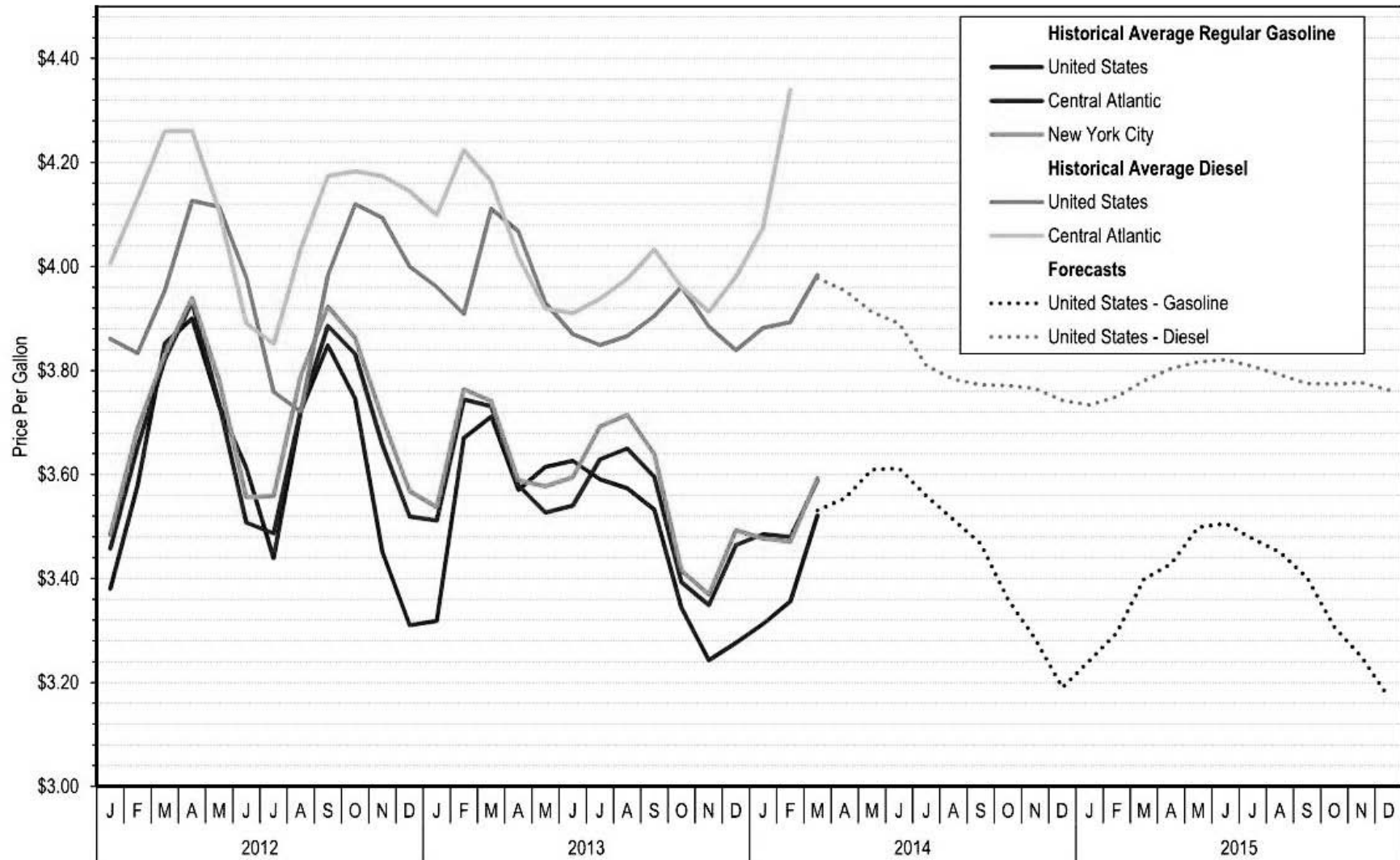
### Field Observations and Meetings

As part of this socioeconomic data collection effort, field observations were made in the study area for both Turnpike and Parkway corridors. Observations of the economic landscape, traffic volumes, and traffic composition along the corridors in both highly urbanized and less-populated rural environments were helpful at generally confirming the patterns evident in the numerical data from the above-listed sources.

Furthermore, to supplement and enhance the volume and quality of the data, various communications (i.e., in-person, via telephone, and/or e-mail) were conducted with knowledgeable representatives from a number of area agencies to serve as both quantitative and qualitative data sources and complementary input. As part of this effort, the entities from which information was obtained included: North Jersey Transportation Planning Authority, South Jersey Transportation Planning Organization, New York Metropolitan Transportation Council, Delaware Valley Regional Planning Commission, and Port Authority of New York and New Jersey.

The interviews with the area entities revealed considerable differences between the north-eastern New Jersey/NYC Metro and the southeastern New Jersey parts of the study area. The northeastern part of the State is characterized as being closer to build-out than a great majority of the Country. Area planning agencies such as the NJTPA and NYMTC collaborate in their socioeconomic forecast development efforts starting with top-down macroeconomic data for the Nation and the Region. The northeastern New Jersey/NYC Metro area is seen as well-diversified, and overall mature and resilient,

<sup>2</sup> Central Atlantic region includes: NY, PA, NJ, DE, MD, and DC.



with tendencies to bounce back from economic cycles/shocks, which is expected to occur in this cycle as well.

In contrast to northern parts of the State, the southeastern/coastal New Jersey is much less diversified and more rural in nature. This part of New Jersey is much more dependent on the tourism and agriculture industries. Its fortunes have been fairly closely tied to those of Atlantic City, which has been lagging in growth for a while. The Atlantic City area tourism/gaming establishments faced significant competition from facilities in other states (e.g., Connecticut, Nevada, and Mississippi, and beyond). As a consequence of this increasingly competitive environment, the Atlantic City area has not fared well of late with some casino bankruptcies, which has led to losing market share and consequently soft employment conditions, and increasingly evident unemployment/poverty on the City streets. Other counties in that corner of the State, e.g., Cape May, have also experienced muted socioeconomic growth that is not expected to be strong in the foreseeable future.

With respect to some of the more recent extraordinary events in the area, the subjects of Hurricane Sandy of 2012, and the harsh winter (Q1) of 2014 were also brought up in the communications. The impacts of both were generally considered relatively temporary and insignificant phenomena with normalization of activity expected to resume in the upcoming quarters.

Thanks to the outreach with these different agencies, it was ensured that the best available, up-to-date locally and regionally generated projections were obtained for use in this corridor growth assessment.

## Overall General Trends

In scrutinizing the various socioeconomic trends, certain patterns emerge that are fairly self-evident:

- New Jersey (and the surrounding areas) tends to have exhibited recent historical growth patterns for the presented socioeconomic variables below that for the United States as a whole; and
- Longer-term socioeconomic growth is expected to rebound relative to the recent decade, which reflects the recent severe economic recession; however, growth rates are generally forecasted to be tempered in comparison to the growth that occurred in the 1990s, likely to take several years to return to pre-recession conditions for some of the variables, in particular, those pertaining to labor markets.

Such general socioeconomic trends reflect changes resulting from a continuously evolving economy, especially in regards to an expected longer-term deceleration in many socioeconomic variables relative to historical patterns. While such variables as population, employment, gross regional product, etc. are reasonably expected to increase in the future, the rate of growth is likely to be tempered relative to the past. A decelerating long-term growth trend is the recent general consensus, as reflected within various publically- and privately-available forecasts for various standard socioeconomic variables. Decelerating trends are easily observed within the preceding exhibits; but, similar deceleration expectations are also evident in the latest data and viewpoint releases from other credible forecasting sources, such as the Congressional Budget Office (CBO), the Federal Open Market Committee (FOMC) of the Federal Reserve Board, and the Economist Intelligence Unit (EIU), to name a few.

A majority of credible forecasting agencies (both public and private) are now publishing expectations for continued economic recovery within the short-term future. While labor and housing markets, along with the larger and economic output measures, continued to improve through 2013 and into 2014, the uneven nature of this strengthening has persisted. A number of risks, such as the fragility of the nascent European recovery, a slowdown in some of the Asian trading partners, and the public sector fiscal difficulties and constraints still remain a drag on growth in the short-term, as the larger U.S. and global economies are trying to gain a stronger expansionary momentum.

A number of qualitative arguments are often touted for this slower-recovery and expansion rationale, including standpoints regarding fundamental structural changes to the economy. An economy is always in constant flux, but there are some phenomena that are structurally altering the economy in ways likely to become permanent and will diverge from the past, including technological advancements (accelerating), information proliferation and accessibility, maturing domestic markets, and globalization (trade interdependency and increased competition). All these factors and others, especially in combination, have shifted the economic paradigm, leading to overall expectations of a future economic picture that differs from those observed in the past.

## Econometric Growth Analysis

All of the socioeconomic data described above were evaluated for the purposes of determining the potentially influential factors on toll transaction growth for the Turnpike and Parkway. Following the historical socioeconomic data analysis, CDM Smith applied a least-squared, multivariate regression analysis to develop demand growth projections for the next decade. In the regression modeling, the objective is to identify any independent variable (or variables) with historical trends that can explain, by way of statistical significance, corresponding transaction trends on the Turnpike and Parkway corridors. A resulting correlative relationship between historical trends in corridor traffic and one or more independent variables is in turn applied in forecasting corridor growth, given available and credible forecasts for the independent variable(s). CDM Smith regression-tested annual transaction data for grouped plazas against geographically-weighted independent socioeconomic data (separately for passenger and commercial vehicles) to derive long-term demand growth forecasts.

### Socioeconomic Inputs

Data inputs requisite for conducting a regression analysis include up-to-date historical and forecasts data for the possibly-explanatory independent variables, which include socioeconomic and demographic variables applicable to a defined geographic area of influence (i.e., New Jersey counties and other geographies in proximate vicinity). Socioeconomic variables that may be hypothetically influential on corridor traffic demand include, but are not limited to: population, employment, gross regional product, income, income per capita, and retail sales. Sources from which both historical and forecast data were collected include: the United States Census Bureau; the United States Department of Labor, Bureau of Labor Statistics (BLS); the North Jersey Transportation Planning Authority (NJTPA); the New York Metropolitan Transportation Council (NYMTC); the South Jersey Transportation Planning Organization (SJTPO); the Wilmington Area Planning Council (WILMAPCO); the Delaware Valley Regional Planning Commission (DVRPC); Woods and Poole Complete Economic and Demographic Data Source (CEDDS) by Woods & Poole Economics, Inc., 2014 (Woods & Poole); Moody's Analytics; United States Department of Transportation, Federal Aviation Administration (FAA); the Port Authority of New York & New Jersey (NY/NJ PA); and, the New Jersey Turnpike Authority.

Historical population data were obtained from the U.S. Census Bureau and forecast data from local sources and Woods & Poole Economics. Historical employment data were obtained from the BLS. Employment growth rate forecasts were obtained from local sources and Woods & Poole, and applied to the historical annual employment data obtained from the BLS. All other regression-tested independent variables (i.e., gross regional product, income, income per capita, and retail sales) were obtained from Woods & Poole and Moody's Analytics (only GRP) for both the historical and forecast components of the data sets, as the publicly-available governmental sources do not supply sufficiently detailed and geographically comparable data.

## Traffic and Travel Pattern Inputs

Historical traffic data were obtained (where available) as a continuous, normalized annual time series from 1992 (for the Turnpike) and 1995 (for the Parkway) through 2013 by toll plaza groups. Passenger and commercial vehicle differentiation was conducted for the Turnpike, but not the Parkway, given the very low representation of commercial vehicles. Annualized transaction data were available for most of the system over that historical timeframe, exempting a few select plazas that opened or closed during that timeframe. Historical transaction data were annually normalized to account for impacts of variables not related to the economy such as toll rate increases, weather events, and construction impacts.

## Methodology

After compiling and scrutinizing the available socioeconomic and Turnpike and Parkway transaction data for regression analysis applicability, individual toll plazas (for only those with usable data series) were clustered into eleven representative groupings, four for the Parkway, and seven for the Turnpike:

- Parkway, Group 1 (Northernmost Section);
- Parkway, Group 2 (effectively Monmouth Co., NJ Section);
- Parkway, Group 3 (effectively Ocean Co., NJ Section);
- Parkway, Group 4 (effectively Cape May Co., Section);
- Turnpike, Delaware Memorial Bridge;
- Turnpike, Pennsylvania;
- Turnpike, George Washington Bridge;
- Turnpike, Camden/Philadelphia;
- Turnpike, Trenton;
- Turnpike, Middlesex County; and
- Turnpike, Newark/NYC.

Grouping the individual plazas was conducted to narrow the regression testing to a reasonably manageable data universe (i.e., narrowing to eighteen effective plaza groupings, four for the Parkway and two sets of seven for the Turnpike, one for commercial, the other for passenger vehicles). Grouping toll plazas as such is generally justified by the close geographic proximity and similarity in traffic demand influence of the grouped plazas. A computer model was used to determine the travel patterns and thus the geographic areas of influence for each toll plaza (a select-link analysis). Toll plazas were grouped together based largely on shared geographic influence areas.

Utilizing the data compiled as part of the select-link analysis, CDM Smith developed a profile identifying the New Jersey counties and surrounding states that contribute traffic to each toll plaza interchange. Profiles were developed by passenger car and commercial vehicle for the Turnpike, and by total vehicle for the Parkway. As with the grouping of the individual toll plaza transaction data, the plaza-specific profiles of geographic influence were similarly clustered such that the plaza groupings could be regression tested against socioeconomic data that were appropriately geographically-weighted.

Independent (socioeconomic) regression variables at the state and county levels were then geographically-weighted (e.g., combinations of states and/or certain New Jersey and New York counties) and each geographically-weighted subset data series was then regression-tested against the respective corresponding plaza grouping. Regression testing as such is conducted to determine the statistical influence of such socioeconomic variables on traffic demand.

According to the select-link analysis, the 21 counties in New Jersey logically serve as the predominate areas of influence for both the Turnpike and the Parkway (depending on the grouping, the exact predominate areas of influence differ). As such, the geographically-weighted socioeconomic data for regression testing are consequently more heavily-weighted to account for those proximate geographies relative to the other areas of influence, which include peripheral states such as: CT, DE, DC, MD, MA, NY, NC, RI, and VA. Generally, the non-New Jersey contributing geographies on traffic demand primarily pertain to those states immediately bordering the State and the Turnpike and Parkway corridors (i.e., NY, PA, and DE), as would be intuitively expected; thus, the remaining contributing states further beyond New Jersey have far smaller weighting.

With the independent socioeconomic variables appropriately weighted to reflect their relative geographic influence, each weighted independent variable individually, and in combination with others as appropriate, was regressed against the corresponding grouped plaza transactions data in both linear and natural log-linear functional forms. In most instances, out of the numerous tested variations, a majority of the pertinent independent variables exhibited a high statistical coefficient of determination (adjusted  $R^2$ ), though certain variables and certain plaza groupings exhibited much stronger statistical correlations than others.

All of the geographically-weighted independent variables for any given plaza grouping were tested against each other for significant statistical correlation. As expected, the geographically-weighted independent variables that were tested exhibit high correlations with each other (because all the tested socioeconomic variables within a given geographic grouping are intuitively interrelated to a greater or lesser degree) and, as such, would result in a likely multicollinearity error in a multivariate regression equation. Therefore, only one socioeconomic independent variable was deemed statistically necessary to identify strong explanatory correlative relationships with corridor traffic and to develop a forecast growth profile (although some multivariate regression modeling was tested as well, but ultimately dismissed because such results did not improve the statistical fit). In addition to quantitatively assessing the data, a qualitative assessment was also conducted. This qualitative assessment considered the reliability of the data sources, the extent of the historical time series, and the forecasting methodology for each independent variable data set.

After a careful review of the input data and regression test results, one variable was selected as the best-suited correlative independent variable against historical corridor toll transactions to forecast



future long-term transaction growth for each toll plaza grouping and vehicle category. Depending on the plaza grouping and vehicle category, the chosen weighted independent socioeconomic variable for the final regression-based estimates is employment, population, retail sales, or GRP. Adjusted coefficients of determination (adjusted  $R^2$ ) for such regression equations range from 80.5 percent upwards to 97.3 percent depending on the grouping, indicating relatively strong statistical significance. Other regression parameters, such as t-statistics, were also checked and found to be strong in all the selected cases.

Based on the econometric regression analysis, combined with updated forecasts of the explanatory socioeconomic variables, the demand growth projections presented in Table 4-5 are obtained. The average annual percentage change (AAPC) from 2013 through 2023 is forecasted to approach 1.7 percent per year for Turnpike toll transactions, and about 1.0 percent per year for Parkway toll transactions, both of which are fairly close to the respective annual averages observed since the mid-1990s. The growth rates vary by plaza grouping and vehicle category, from a low of about 0.6 percent per year for the Parkway, Group 4 to a high of 2.8 percent for Turnpike: Camden/Philadelphia area for passenger vehicles.

It should be emphasized again that the regression analysis was used to develop medium-term normal demand growth estimates beyond FY 2013-14 and serve as a baseline forecast from which future traffic and revenue estimates are derived. Further adjustments may be warranted in determining the final traffic and revenue estimates from these medium-term demand projections, to account for issues such as network changes, toll rate increases, known construction timeframes, etc. Adjustments were made to the forecast growth rates in the near-term (2014 and 2015) to account for monthly variations in traffic demand. Other mid-term adjustments were made to account for future roadway improvement projects and market share changes in E-ZPass. These will be discussed in Chapter 5.

**Table 4-5: Baseline Corridor Demand Growth Rates**

Plaza Grouping/Corridor	2013-2023 AAPC
Garden State Parkway Corridor	1.0%
New Jersey Turnpike Corridor	1.7%
New Jersey Turnpike (Passenger Vehicles)	1.7%
New Jersey Turnpike (Commercial Vehicles)	1.40%
Garden State Parkway, Group 1	0.9%
Garden State Parkway, Group 2	1.2%
Garden State Parkway, Group 3	1.2%
Garden State Parkway, Group 4	0.6%
New Jersey Turnpike, Delaware Memorial Bridge - Passenger Vehicles	1.5%
New Jersey Turnpike, Pennsylvania - Passenger Vehicles	1.5%
New Jersey Turnpike, George Washington Bridge - Passenger Vehicles	1.7%
New Jersey Turnpike, Camden/Philadelphia - Passenger Vehicles	2.8%
New Jersey Turnpike, Trenton - Passenger Vehicles	2.2%
New Jersey Turnpike, Middlesex County - Passenger Vehicles	2.1%
New Jersey Turnpike, Newark/NYC - Passenger Vehicles	1.5%
New Jersey Turnpike, Delaware Memorial Bridge - Commercial Vehicles	1.9%
New Jersey Turnpike, Pennsylvania - Commercial Vehicles	2.6%
New Jersey Turnpike, George Washington Bridge - Commercial Vehicles	2.0%
New Jersey Turnpike, Camden/Philadelphia - Commercial Vehicles	2.4%
New Jersey Turnpike, Trenton - Commercial Vehicles	1.6%
New Jersey Turnpike, Middlesex County - Commercial Vehicles	1.3%
New Jersey Turnpike, Newark/NYC - Commercial Vehicles	0.9%

## Chapter 5

# Transaction and Gross Toll Revenue Forecasts

Traffic and gross toll revenue estimates are provided in this chapter for the New Jersey Turnpike and the Garden State Parkway, separately, and for the Total System. These forecasts extend from 2014, which include three months of actual transaction and revenue data, through 2024. The forecasts developed for this study take into account the underlying normal growth forecasts identified in Chapter 4, estimated impacts of committed roadway improvements, and continued growth in the E-ZPass market share.

## Committed Roadway Improvements

CDM Smith identified the major committed roadway projects that were taken into consideration for this study through discussions with the NJTA staff and by reviewing the following documents:

- NJTPA FY 2014-2017 TIP (North Jersey Transportation Planning Authority);
- DVRPC FY 2014-2017 TIP For NJ (Delaware Valley Regional Planning Commission);
- DVRPC FY 2013-2016 TIP For PA (Delaware Valley Regional Planning Commission);
- FY 2014 - 2023 New Jersey Statewide Transportation Improvement Program;
- FY 2014-23 Transportation Improvement Program (South Jersey Transportation Planning Organization); and
- 2014 New Jersey Turnpike Authority Capital Project and Investment Plan.

The roadway improvement projects listed in Table 5-1 and pictured in Figures 5-1 and 5-2 were reviewed to determine their potential for impacting transactions and toll revenue on the Turnpike or Parkway, either permanently or temporarily. The listed improvements fall into the following four broad categories. The Improvement Numbers refer to the Project Number shown in Table 5-1 and Figures 5-1 and 5-2.

- 1) New capacity/roadway widening (Improvement Numbers 2, 6 and 13);
- 2) Improved interchanges (Improvement Numbers 4, 7, 8, 9, 10, 11, 14, 15, 16 and 17);
- 3) New interchanges (Improvement Numbers 8 and 17); and
- 4) Bridge improvements (Improvement Numbers 1, 3, 5, 12, and 13).

Both the Parkway and Turnpike have ongoing roadway widening projects where additional travel lanes are being provided in each direction. Eight existing interchanges on the Parkway will have new ramps constructed that will provide for previously missing movements. One interchange (14A) on the Turnpike will be realigned and improved in order to deal with anticipated growth in traffic volumes associated with adjacent development. There will also be a new major interchange constructed,

**Table 5-1**  
**Summary of Major Committed Roadway Improvements**  
**Considered For The Transaction and Toll Revenue Analysis**

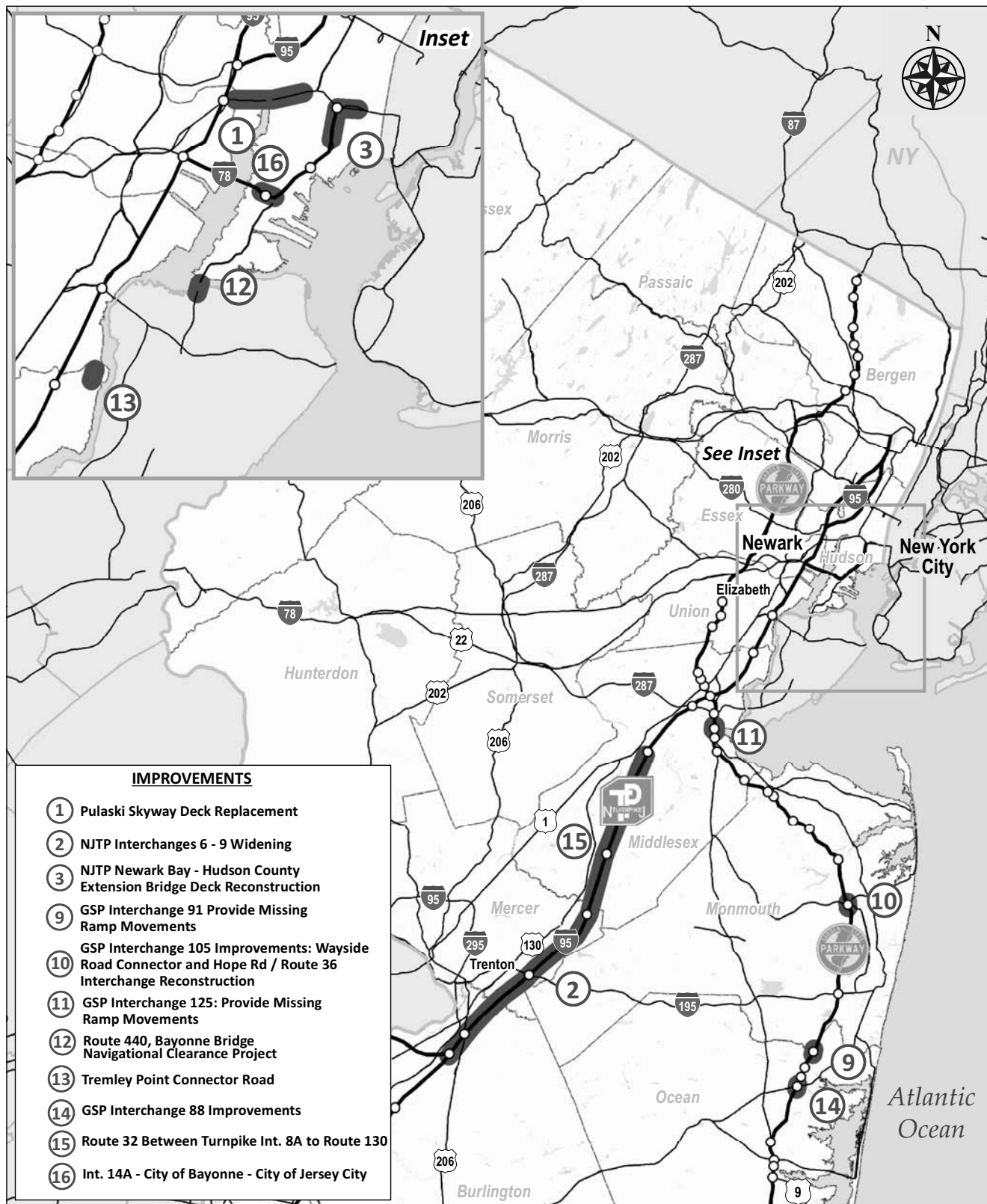
Project Number (1)	Location By Interchange (Int) or Milepost (MP)	Description	Actual or Assumed Start Date	Assumed Completion Date
<b>Turnpike</b>				
2	Int. 6 (Pearl Harbor Mem. Turnpike Ext.) to Int. 9 (East Brunswick)	Add 3 additional travel lanes per direction. Extends the dual/dual section of roadway. Results in 6 lanes per direction.	2009	Nov. 2014
3	Newark Bay-Hudson County Extension	Replacement of the bridge deck in both directions	2012	2015
15	Route 32 between Turnpike Int. 8A to Route 130	Roadway improvements to address congestion on section of Route 32.	2013	Summer 2015
16	Int. 14A - City of Bayonne - City of Jersey City	Improve and re-align Interchange 14A to cope with anticipated traffic increases.	2014	Mid 2017
<b>Parkway</b>				
4	Int. 9 (Mayville), Int. 10 (Stone Harbor), Int. 11 (609 West)	Eliminate Traffic Signals and Provide Grade Separated Interchanges.	2013	2015
5	Great Egg Harbor Bridge Improvement	Replacing southbound span of bridge.	2013	2016
6	Int. 30 (Somers Point / Downtown Ocean City) to Int. 63 (Route 72)	Add 1 additional lane per direction to total 3 lanes per direction.	2014	May 2017
7	Int. 36 (US 40 / 322 Black Horse Pike), 37 (Washington Ave. Pleasantville), 38 (Atlantic City Expressway)	Provide missing ramp connections.	2014	2017
8	Int. 41 (Atlantic City Service Plaza) Int. 44 (Route 575 - Pomona)	Construct full access interchange at service plaza. Provide missing ramp connections.	2013	Spring 2015
9	Int. 91 (Brick)	Provide missing ramp connections.	Fall 2014	Spring 2016
10	Int. 105 (Route 18 East)	Wayside Road Connector and Hope Road / Route 36 interchange reconstruction.	2013	2015
11	Int. 125 (Route 35 / South Amboy)	Provide missing ramp connections.	2012	Fall 2015
14	Int. 88 (Lakehurst)	Provide missing ramp connections.	2012	Dec. 2014
<b>Other Roadways</b>				
1	Pulaski Skyway	Replacement of the bridge deck in both directions.	2014	2015
12	Route 440 / Bayonne Bridge	Raise height of bridge deck to accommodate boat traffic.	2014	2017
13	Tremley Point Connector Road	New four lane 1.1 mile roadway / bridge crossing.	2014	2014
17	I-276 / I-95 Interchange	Provide a partial interchange between I-276 and I-95.	2012	Jan. 2018

(1) Corresponds to Improvements Numbered in Figures 5-1 and 5-2.

Sources: DVRPC FY 2014-2017 TIP For NJ (Delaware Valley Regional Planning Commission)  
DVRPC FY 2014-2017 TIP For PA (Delaware Valley Regional Planning Commission)  
FY 2014 - 2023 New Jersey Statewide Transportation Improvement Program  
FY 2014-23 Transportation Improvement Program (south Jersey Transportation Planning Organization)  
2014 New Jersey Turnpike Authority Capital Project and Investment Plan

# New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study

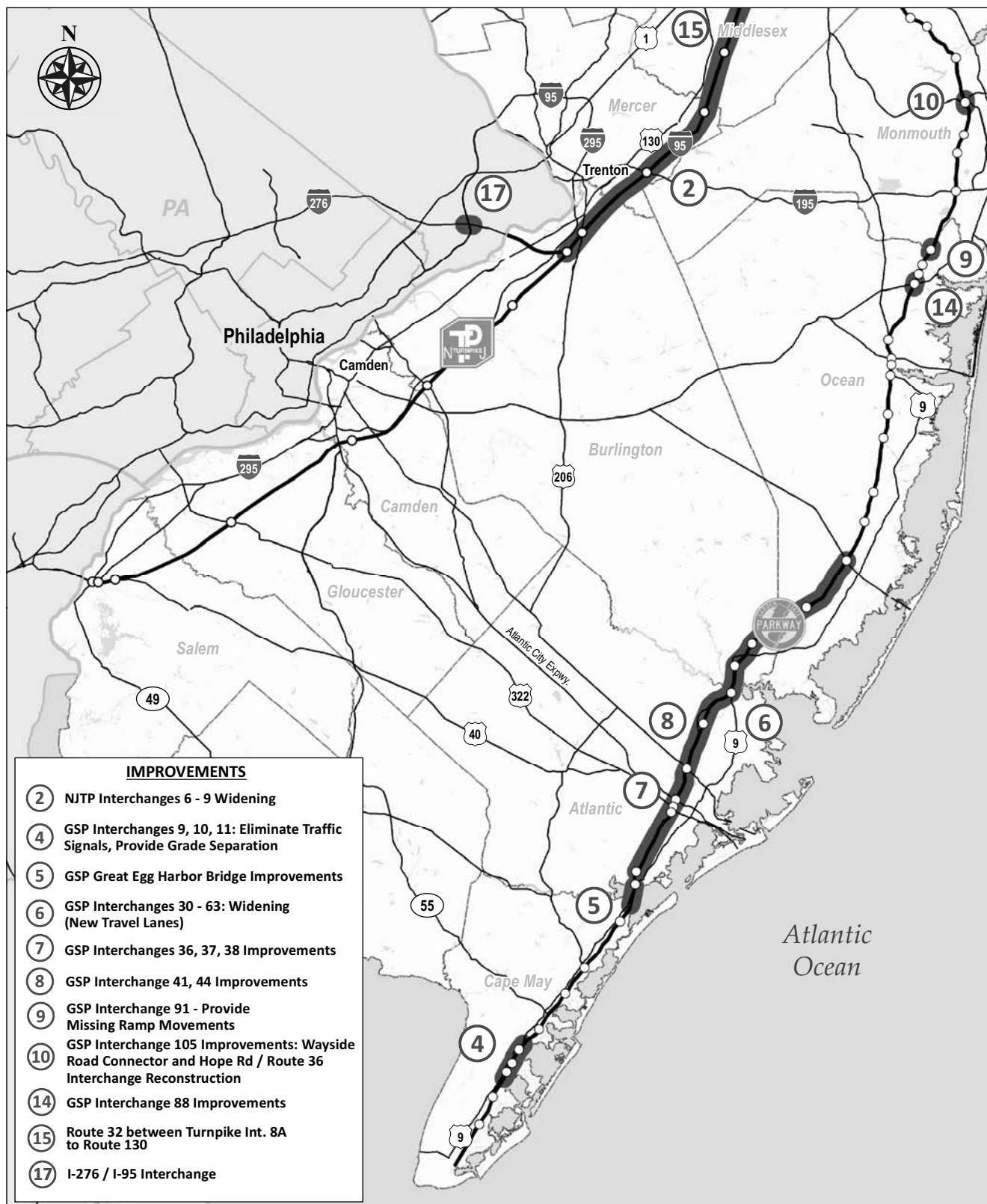
NJ 104341 / 2014 IG T&R Study / 4-18-14 / 2014 North Improvements No Int.mxd



## ROADWAY IMPROVEMENTS: NORTHERN NEW JERSEY

# New Jersey Turnpike System 2014 Traffic and Toll Revenue Forecast Study

NJ 104341 / 2014 IG T&R Study / 4-18-14 / South Improvements No Int.mxd



## ROADWAY IMPROVEMENTS: SOUTHERN NEW JERSEY

creating a direct, high-speed connection between I-276 (PA Turnpike) and I-95 north of Philadelphia, PA. During the forecast period of this study, only part of the new interchange will be completed. In early 2018 it is planned that ramps in one quadrant of the interchange will be completed. Those ramps will provide access between northbound I-95 to eastbound I-276, and westbound I-276 to southbound I-95. Lastly, the rehabilitation of a section of the Pulaski Skyway began in 2014. This project includes replacing the 3.5 mile Pulaski Skyway deck, rehabilitating the ramps and steel superstructure and substructure.

Each of the projects just discussed were reviewed to determine their potential (positive or negative) impact on future toll transactions and toll revenue on the Total System. In some cases, such as the roadway widening projects, the New Jersey Turnpike Systemwide Planning Model was used to estimate the impact of the roadway improvement. The majority of the improvements were estimated to have nominal impacts.

Three of the improvements, however, did show impacts that CDM Smith considered large enough to consider as separate impacts. The extensive Turnpike widening program (Number 1 in Figures 5-1 and 5-2) is estimated to add about 0.6 percent to total passenger car toll transactions. The expected completion date for this project is in late 2014. To be conservative, positive impacts were not assumed until 2015. Half of the impact (or 0.3 percent) was assumed to occur in 2015 and the remaining 0.3 percent positive impact was assumed to occur in 2016 and 2017 (0.15 percent in each year), spread out over time to account for ramp-up. The total Turnpike widening impact on commercial vehicles was slightly higher, at 0.72 percent. The same methodology for assigning the impacts to 2015 through 2017 was used for commercial vehicles as was just described for passenger cars.

The second improvement expected to have a measurable impact on Turnpike toll transactions is the I-276/I-95 Interchange project (Number 10 in Figure 5-2). This was shown to have a slight negative impact on Turnpike toll transactions as motorist would be able to use the Turnpike's Pear Harbor Memorial Extension to access I-95 directly on the Pennsylvania Turnpike for movements to and from the Philadelphia metro area. This is estimated to decrease total Turnpike passenger car transactions by about 0.4 percent. This was split into two negative impacts of 0.2 percent in both 2018 and 2019. Total impacts for commercial vehicles were negligible and are estimated to decrease commercial traffic on the Turnpike by only about 0.1 percent.

In mid-April 2014 the Pulaski Skyway was closed to eastbound (toward the Holland Tunnel) traffic. The eastbound travel direction will be closed for a two year period as the bridge deck is replaced. The consulting firm Parsons Brinckerhoff (PB) conducted the Transportation Management Plan (2013) for this construction period. The primary diversion route during the two year construction period was identified as the I-78 Turnpike Extension. For toll revenue purposes, CDM Smith assumed that the eastbound Turnpike Extension average daily traffic volumes would increase by about 45 percent, or by about 14,200 passenger cars. Only passenger cars would be affected since commercial vehicles are not allowed on the Pulaski Skyway. Recent 24-hour traffic counts on the Turnpike Extension indicate that the daily impact has, in fact, averaged about 14,300 (slightly above the estimates used for revenue impacts). To accommodate the increased traffic volume on the Turnpike Extension, the right shoulder has been converted into an additional travel lane, which is open to traffic during peak periods. The CDM Smith forecasts assume the positive diversion impact of the Pulaski Skyway closure for only the two year construction period. NJTA, however, plans to market this route to this new customer base and maintain the additional third lane of capacity even after the Pulaski Skyway opens once again to

eastbound traffic. Any longer term positive revenue impacts from traffic that continues to use the Turnpike Extension after the two year construction period have not been factored into these traffic and revenue forecasts.

## Estimated E-ZPass Market Share

Another key element in developing estimates of transactions and toll revenue is the future market share for E-ZPass. CDM Smith conducted a detailed review of historical growth trends in E-ZPass market share over the last several years. Table 3-11 summarized those historical trends through the end of 2013. In 2013, the E-ZPass market share on the Turnpike totaled 79.5 percent for passenger cars, 88.2 percent for commercial vehicles, and 80.6 percent for all vehicles. 2013 E-ZPass market share on the Parkway totaled 77.2 percent for all vehicles.

Figure 5-3 shows the historical trends in E-ZPass market share, as well as estimated future market share through 2024. Separate estimates have been developed for Turnpike passenger cars and commercial transactions and for total Parkway transactions. By 2024, the E-ZPass market share on the Turnpike is estimated to reach about 86.7 percent for passenger cars and 95.0 percent for commercial vehicles. The 95.0 penetration rate for commercial vehicles is considered to be the maximum E-ZPass market share, as there is likely to always be some commercial vehicles without E-ZPass. The E-ZPass market share for Parkway vehicles is estimated to reach 84.4 percent in 2024.

## Transaction and Gross Toll Revenue Forecasts

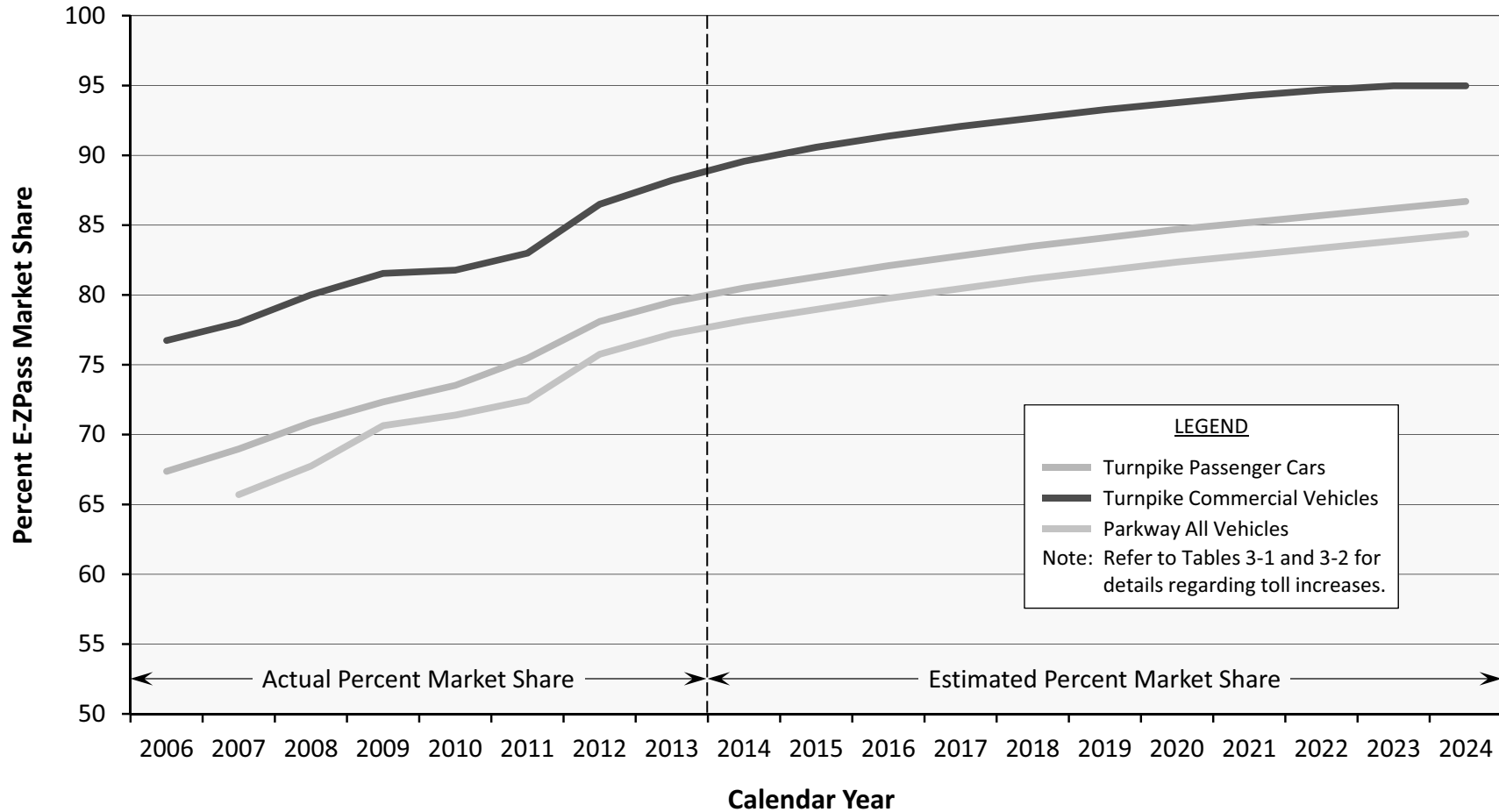
Annual estimates of toll transactions and gross toll revenue were developed by applying the estimated roadway improvement impacts (discussed previously in this chapter) to the underlying normal growth rates discussed in Chapter 4. Finally, the resulting travel demand was divided into its respective cash and E-ZPass market segments so that the differing average toll rates for each could be applied. As mentioned earlier, no future toll increases have been assumed during the forecast period.

Table 5-2 identifies the resulting toll transaction and toll revenue growth rates. The underlying normal average annual growth rates (as developed in Chapter 4) amount to 1.7 percent for Turnpike passenger car traffic, 1.4 percent for Turnpike commercial traffic, and 1.0 percent for total Parkway traffic. Any significant variations from these growth rates are the result of additional factors.

In 2014, the negative impacts of extremely bad weather in the first quarter adversely affect overall traffic growth on an annual basis. However, the positive impact of the Pulaski Skyway closure results in Turnpike passenger car traffic growing by 2.8 percent in 2014 and revenue growing by 1.9 percent. The revenue impact of the Pulaski Skyway construction is less than the traffic impact because the additional traffic using the Extension is paying less than the overall average toll rate for passenger cars on the Turnpike. Overall, total system traffic growth amounts to 1.3 percent in 2014 while revenue is estimated to grow by 1.4 percent.

In 2015, the positive impacts of the Pulaski Skyway construction, Turnpike widening, and recovery from the severe January, February, and March 2014 weather all contribute to greater than normal growth. As a result, total Turnpike traffic increases by 3.7 percent and total Turnpike toll revenue increases by 3.6 percent. Parkway traffic and revenue increase by a more modest 2.6 percent, as it is only affected by the positive weather recovery impact.





**Table 5-2**  
**Estimated Annual Toll**  
**Transaction and Gross Toll Revenue Growth Rates**  
**New Jersey Turnpike Authority**

**Percent Change Over Previous Year**

Year	Annual Toll Transactions				
	Turnpike			Parkway Total	System Total
	Passenger Cars	Commercial Vehicles	Turnpike Total		
2013	---	---	---	---	---
2014 <sup>(1,4)</sup>	2.8%	1.4%	2.6%	0.4%	1.3%
2015 <sup>(2,4,5)</sup>	3.8	2.7	3.7	2.6	3.0
2016 <sup>(2,4)</sup>	0.0	1.5	0.2	1.0	0.7
2017 <sup>(2)</sup>	1.2	1.5	1.2	1.0	1.1
2018 <sup>(3)</sup>	1.5	1.3	1.5	1.2	1.3
2019 <sup>(3)</sup>	1.5	1.3	1.5	1.1	1.3
2020	1.7	1.4	1.7	1.1	1.3
2021	1.7	1.3	1.7	1.0	1.3
2022	1.8	1.4	1.7	1.0	1.3
2023	1.7	1.4	1.7	1.0	1.2
2024	1.8	1.3	1.7	1.0	1.2

Year	Annual Toll Revenue				
	Turnpike			Parkway Total	System Total
	Passenger Cars	Commercial Vehicles	Turnpike Total		
2013	---	---	---	---	---
2014 <sup>(1,4)</sup>	1.9%	1.4%	1.7%	0.5%	1.4%
2015 <sup>(2,4,5)</sup>	4.0	2.9	3.6	2.6	3.3
2016 <sup>(2,4)</sup>	0.7	1.6	1.0	1.1	1.0
2017 <sup>(2)</sup>	1.6	1.6	1.6	1.1	1.4
2018 <sup>(3)</sup>	1.5	1.1	1.3	1.2	1.3
2019 <sup>(3)</sup>	1.5	1.1	1.3	1.1	1.3
2020	1.6	1.2	1.5	1.1	1.4
2021	1.7	1.2	1.5	1.0	1.4
2022	1.7	1.3	1.5	1.0	1.4
2023	1.7	1.3	1.5	1.0	1.4
2024	1.7	1.4	1.6	1.0	1.4

(1) Data through March 2014 is actual.

(2) Includes estimated positive impacts from Turnpike widening program.

(3) Includes estimated negative impacts from completion of Phase I of the I-95 Interchange project on the Pennsylvania Turnpike.

(4) Includes estimated temporary positive impacts associated with construction on the Pulaski Skyway.

(5) 2015 Includes recovery of traffic and toll revenue from multiple winter weather events and abnormally cold temperatures during Q1 2014.

2016 growth rates largely reflect only the underlying normal growth. The only exception to this is for Turnpike passenger cars. They show 0.0 percent traffic growth and 0.7 percent revenue growth. These lower than normal growth rates are the result of the completion of the Pulaski Skyway eastbound lane closures. For purposes of this analysis, it was assumed that all passenger car traffic that was diverted to the Turnpike Extension returns to the Pulaski Skyway. As previously discussed, NJTA intends to maintain the additional roadway capacity after construction is completed and this may result in some more permanent positive traffic and revenue impacts on the Turnpike. But, again, those are not assumed in this analysis. Total 2016 NJTA system traffic growth amounts to 0.7 percent, while total revenue growth is estimated at 1.0 percent.

Traffic and revenue growth in 2017 and beyond reflects the underlying normal growth assumptions. As shown, between 2017 and 2024 total annual traffic and revenue growth ranges from 1.2 percent to 1.4 percent.

Table 5-3 shows the resulting estimates of annual toll transactions and gross toll revenue. Data for 2013 reflects actual information as do the first three months of 2014. As shown, total annual Turnpike passenger car transactions are estimated to increase from 195.2 million in 2013 to nearly 237.0 million by 2024, reflecting an average annual growth rate of 1.8 percent. Total Turnpike commercial vehicle transactions are estimated to increase from 29.3 million to 34.5 million over the same time period, reflecting an average annual growth rate of 1.5 percent. Total Turnpike transactions are expected to increase from 224.5 million in 2013 to nearly 271.5 million by 2024, a 1.7 percent average annual increase. Historically, over the last 20 year period, the annual increase in toll transactions on the Turnpike has averaged 1.0 percent. It should be remembered, however, that during this period toll rates more than doubled on the Turnpike. The negative effects of the Great Recession from 2007 through 2009 also acted to negatively affect traffic during this period.

Estimated growth on the Parkway is slightly lower. Total 2013 toll transactions amount to 368.9 million and increase to almost 417.1 million by 2024, an average annual increase of 1.1 percent. It is difficult to accurately identify historical growth trends on the Parkway due to the one-way toll conversions, but for those periods where comparable data can be reviewed, Parkway toll transaction growth has been slightly less than that observed on the Turnpike.

Figure 5-4 provides the toll transaction estimates in graphical format. Historical data from 2000 through 2013 is also provided along with the forecasts in order to put overall long term growth in perspective.

The bottom portion of Table 5-3 shows the resulting gross toll revenue estimates. Total annual Turnpike toll revenue is estimated to grow from \$1,006.7 million in 2013 to \$1,205.8 million by 2024. Total Parkway toll revenue is estimated to increase from \$407.0 million to \$462.0 million over the same forecast period. Total System toll revenue is estimated to grow from \$1,413.8 million in 2013 to about \$1,667.8 million by 2024. Figure 5-5 provides the same toll revenue estimates in graphical format. Historical data from 2000 through 2013 is also provided along with the forecasts. This helps identify both historical and forecasted normal growth, as well as the impacts of the last two major toll increases in December 2008 and January 2012.

**Table 5-3**  
**Estimated Annual Toll**  
**Transactions and Gross Toll Revenue**  
**New Jersey Turnpike Authority**

**All Values in Thousands**

<b>Annual Toll Transactions</b>					
<b>Year</b>	<b>Turnpike</b>		<b>Turnpike Total</b>	<b>Parkway Total</b>	<b>System Total</b>
	<b>Passenger Cars</b>	<b>Commercial Vehicles</b>			
2013	195,208	29,278	224,486	368,918	593,404
2014 <sup>(1,4)</sup>	200,609	29,699	230,308	370,571	600,879
2015 <sup>(2,4,5)</sup>	208,242	30,513	238,755	380,105	618,860
2016 <sup>(2,4)</sup>	208,259	30,980	239,239	384,020	623,259
2017 <sup>(2)</sup>	210,769	31,454	242,223	387,976	630,199
2018 <sup>(3)</sup>	214,015	31,863	245,878	392,593	638,471
2019 <sup>(3)</sup>	217,311	32,277	249,588	396,911	646,499
2020	221,092	32,713	253,805	401,277	655,082
2021	224,961	33,154	258,115	405,250	663,365
2022	228,898	33,602	262,500	409,262	671,762
2023	232,903	34,056	266,959	413,150	680,109
2024	236,979	34,515	271,494	417,075	688,569

<b>Annual Toll Revenue</b>					
<b>Year</b>	<b>Turnpike</b>		<b>Turnpike Total</b>	<b>Parkway Total</b>	<b>System Total</b>
	<b>Passenger Cars</b>	<b>Commercial Vehicles</b>			
2013	\$672,828	\$333,892	\$1,006,720	\$407,044	\$1,413,764
2014 <sup>(1,4)</sup>	685,342	338,451	1,023,793	409,084	1,432,877
2015 <sup>(2,4,5)</sup>	712,598	348,296	1,060,894	419,715	1,480,609
2016 <sup>(2,4)</sup>	717,472	353,697	1,071,169	424,231	1,495,400
2017 <sup>(2)</sup>	728,724	359,260	1,087,984	428,772	1,516,756
2018 <sup>(3)</sup>	739,453	363,089	1,102,542	434,048	1,536,590
2019 <sup>(3)</sup>	750,464	366,958	1,117,422	438,972	1,556,394
2020	762,763	371,500	1,134,263	443,953	1,578,216
2021	775,468	376,098	1,151,566	448,476	1,600,042
2022	788,384	380,836	1,169,220	453,044	1,622,264
2023	801,514	385,720	1,187,234	457,518	1,644,752
2024	814,862	390,928	1,205,790	462,035	1,667,825

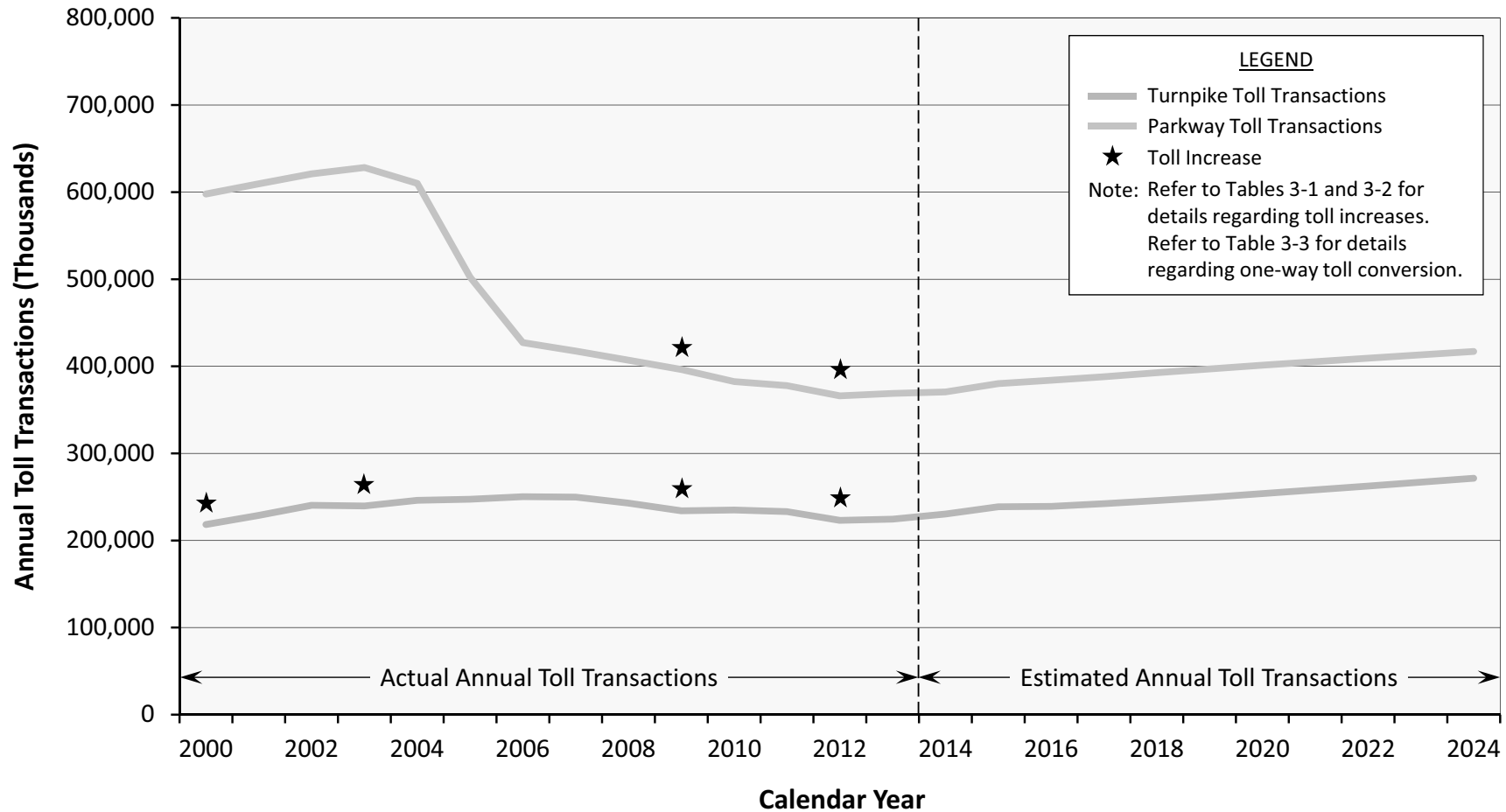
(1) Data through March 2014 is actual.

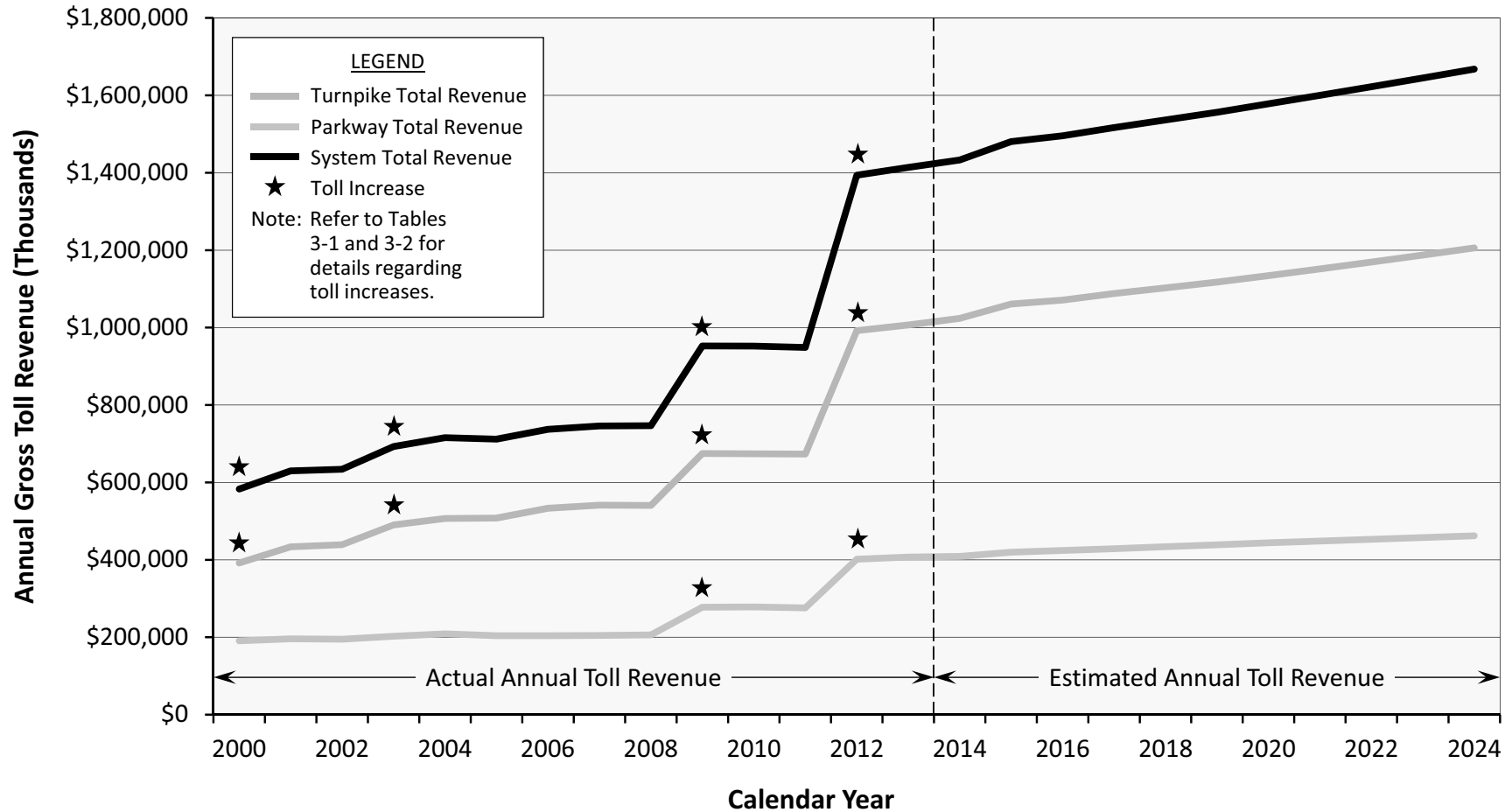
(2) Includes estimated positive impacts from Turnpike widening program.

(3) Includes estimated negative impacts from completion of Phase I of the I-95 Interchange project on the Pennsylvania Turnpike.

(4) Includes estimated temporary positive impacts associated with construction on the Pulaski Skyway.

(5) 2015 Includes recovery of traffic and toll revenue from multiple winter weather events and abnormally cold temperatures during Q1 2014.





## Disclaimer

Current accepted professional practices and procedures were used in the development of these updated traffic and revenue forecasts. However, as with any forecast of the future, it should be understood that there may be differences between forecasted and actual results caused by events and circumstances beyond the control of CDM Smith. In formulating its forecasts, CDM Smith has reasonably relied upon the accuracy and completeness of information provided (both written and oral) by the NJTA and other local and state agencies. CDM Smith also has relied upon the reasonable assurances of some independent parties and is not aware of any facts that would make such information misleading.

CDM Smith has made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue forecasts that must be considered as a whole; therefore selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit to partial information extracted from this report.

All forecasts and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple state and local agencies, including NJTA, by an independent third party. These estimates and projections may not be indicative of actual or future values, and are therefore subject to substantial uncertainty. Future developments cannot be predicted with certainty, and may affect the forecasts or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any forecasts or projections contained within this report.

While CDM Smith believes that some of the projections or other forward-looking statements contained within the report are based on reasonable assumptions as of the date in the report, such forward looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to: socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

CDM Smith is not, and has not been, a municipal advisor as defined in Federal law (the Dodd Frank Bill) to NJTA and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to NJTA with respect to the information and material contained in this report. CDM Smith is not recommending and has not recommended any action to NJTA. NJTA should discuss the information and material contained in this report with any and all internal and external advisors that it deems appropriate before acting on this information.

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## **APPENDIX C**

### **REPORT OF CONSULTING ENGINEER**

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## **CONSULTING ENGINEER'S REPORT**

### **New Jersey Turnpike Authority**

### **Turnpike Revenue Bonds – Series 2017 A**

#### **INTRODUCTION**

As Consulting Engineer to the New Jersey Turnpike Authority (Authority), HNTB Corporation is pleased to submit this engineering report in support of the Authority's continued implementation of its \$7 billion Capital Improvement Program (the CIP). In this report, we provide our professional opinions of the Authority's operations and maintenance performance, and descriptions and status of the projects included in the capital program. The projects in the capital program generally serve to repair or replace existing capital assets and provide new assets to improve and expand both the New Jersey Turnpike (Turnpike) and the Garden State Parkway (Parkway). We also present estimates of operations and maintenance expenses for the Authority to operate and maintain the Turnpike and the Parkway for the period 2017 through 2027.

The capital assets of the Authority include approximately 3,595 lane miles (mainline, shoulders, and ramps) of roadway and 1,100 bridges, as well as numerous facilities to accommodate patron services (service areas), maintenance activities, toll collection, materials storage, salt storage, and State Police offices.

The character of the two roadways, the Turnpike and the Parkway, is remarkably different in a number of important aspects. These differences are a direct result of the type and volume of traffic using each roadway and the purposes and needs of an interstate road (the Turnpike) and an intrastate road (the Parkway). The disparity in the level of resources required to operate, maintain, enhance, and expand the two facilities is reflective of these inherent differences. The Authority has adequately organized their agency and executed their operations and maintenance plans to address the infrastructure and operational needs of both roadways. One common thread for the entire roadway system is proper maintenance. The following is a brief description of the Authority's recent and ongoing efforts to preserve the condition of their assets.

#### **A STATE OF GOOD REPAIR**

An enduring policy of the Authority has been to maintain its assets in a state of good repair. To this end, the Authority, since its inception, has implemented an aggressive annual inspection program of the roads, bridges, buildings, and toll plazas. Beginning in 2016, the Authority has increased the level of detail for its annual inspection program to cover more items and provide a greater depth of inspection. Bridge inspections alone represent an average expenditure of \$6.5 million per year. Pavements are surveyed annually to identify areas where resurfacings are warranted to maintain serviceability. To ensure that maintenance funds are spent wisely and cost-effectively, the annual maintenance and improvement programs are comprised of projects prioritized in order of urgency in a manner that maintains public safety and the serviceability of the roadways and bridges.

Preventive maintenance and maintenance repairs are carried out through a combination of annual maintenance-related contracts and capital projects for the more significant projects. Annual contracts are awarded for all categories of bridge repairs -- deck replacements, superstructure repairs, and substructure repairs. In 2016, the amount awarded for this purpose exceeded \$44

million. In 2017, that amount is planned to increase to approximately \$58 million. Because of this diligence, the conditions of the Authority's 1,100± bridges range from "fair" to "excellent"; terms that are defined in the Federal Highway Administration (FHWA) Coding Guide for the Inventory and Appraisal of the Nation's Bridges. In addition, there were ten structurally deficient bridges at the beginning of the CIP. The continuation of the CIP coupled with the annual maintenance program, will reduce that number to zero in 2018. All bridges are capable of safely supporting the heaviest legal loads of the state and nation.

The Authority also takes very good care of its pavements. It starts with the design criteria that the Authority has adopted. The design of the pavement section for both the Turnpike and the Parkway ensures that the roadways can withstand the daily impact of the traffic thereby helping to minimize future capital expenditure needs. The pavement section design consists of a 2" asphalt surface course on top of an asphalt base course. The next layer below the asphalt base course is an aggregate base course. The combination of asphalt and aggregate base courses give the pavement its strength to support the volume of car and truck traffic. These layers are then constructed on top of a Grade A embankment material. The Grade A material allows any water infiltration away from the pavement subbase immediately. This feature reduces the amount of water being trapped under the pavement section which causes damage to the asphalt courses. Due to the original design and construction of the Turnpike and Parkway, the majority of the wear and tear caused by traffic, especially trucks, is limited to the top 2" layer of asphalt surface course, and generally does not migrate below the surface course. Thus, the original construction minimizes major rehabilitation of the roadbed courses and allows the Authority to remove and replace only the top 2" of pavement as part of its pavement resurfacing program. Both roadways have been recognized in the past as "Perpetual Pavements" by the National Asphalt Pavement Association. The requirement for this designation includes a minimum of a 50-year pavement life requiring only periodic resurfacings.

Annual contracts are awarded each year for pavement resurfacing projects on both the Turnpike and Parkway. Pavement resurfacing in 2016 was the subject of contracts that exceeded \$31 million. In 2017, that amount will increase to \$50.5 million. Pavement resurfacing involves milling a minimum two inches of existing asphalt surfacing and replacing it with a minimum of two inches of new hot mix asphalt. The resurfacing cycle has been every 15 years, but the increased maintenance reserve funding policies for 2017 and future years have resulted in reducing that cycle down to 12 years which compares well with other transportation agencies in the Northeast.

These annual maintenance and repair contracts are primarily funded through the Maintenance Reserve and Special Projects Reserve Funds (see below for a discussion of these funds and annual deposit requirements). Some projects however, are funded through a capital program or the Supplemental Capital Fund.

## **\$7 BILLION CAPITAL PROGRAM**

As Consulting Engineers to the Authority, we have participated in the planning, preparation of construction documents and cost estimates, and the monitoring of actual construction for various Authority widening and improvement projects that are part of the CIP. As part of the Authority's overall financial planning, we have reviewed the estimated total construction costs and the schedules for the projects included in the CIP and consider the estimated costs and schedules reasonable based on currently available engineering studies and construction status.

The projects that comprise the Authority's CIP can generally be divided into six categories: Turnpike Widening (Interchange 6-9), Bridge Improvements, Roadway Improvements, Interchange Improvements, Facilities Improvements, and Parkway Widening (Interchange 35-80). As seen in the breakdown of the CIP below, it is a balanced mix of projects which will increase traffic capacity and operational efficiencies while also maintaining the system in a state of good repair. The breakdown of the CIP is as follows:

Category	Amount (millions)	% of Program
Turnpike Widening (Interchange 6-9)	\$ 2,231	31.9%
Bridge Improvements	\$ 1,683	24.0%
Roadway Improvements	\$ 817	11.7%
Interchange Improvements	\$ 1,026	14.7%
Facilities Improvements	\$ 653	9.3%
Parkway Widening (Interchange 35-80)	\$ 590	8.4%
<b>TOTAL</b>	<b>\$ 7,000</b>	

A detailed breakdown of the projects in these categories and brief descriptions of each are provided below:

#### **CIP Projects**

##### **Turnpike Widening (Interchange 6-9)**

##### **1. Turnpike Interchange 6-9 Widening**

The project involved the construction of 3 additional lanes, both northbound and southbound, between Interchanges 6 and 8A, approximately 25 miles. The project also included the addition of one lane in each direction between Interchanges 8A and 9. The widening project resulted in 12 total mainline lanes being provided between Interchanges 6 and 9. In addition, the project included interchange improvements within the project limits as determined to be necessary to meet traffic demands for the design year of 2032.

Status – design and construction completed and opened to traffic – November 2014.

##### **Bridge Improvements**

##### **2. Bridge Painting Phase I**

This project provided for the design and construction for the cleaning and repainting of structural steel of the highest priority Turnpike and Parkway major and non-major bridges.

Status – design and construction completed – September 2014

### **3. Deck Reconstruction Phase I**

This project provided for the design and construction of the re-decking of the highest priority Turnpike and Parkway mainline bridges.

Status – design and construction completed and opened to traffic – March 2016

### **4. Bridge Preservation & Security**

This project provides for the design and construction phases of countermeasures and security improvements for the Authority's 16 major bridges on the Turnpike and Parkway. It also includes the design and construction of seismic retrofitting of the Turnpike's highest priority bridges as recommended from the Phase I Seismic Screening and Prioritization Report. This project further provides for the design and construction for the miscellaneous bridge work on the Turnpike not covered under the annual miscellaneous structural repair contracts. The primary work includes bridge bearing replacement and significant substructure repairs.

Status – design and construction is on-going

### **5. Deck Reconstruction Phase II**

This project provides for the design and construction of the re-decking of the highest priority Turnpike and Parkway mainline bridges.

Status – design and construction is on-going

### **6. Bridge Painting Phase II**

This project provides for the design and construction for the cleaning and repainting of structural steel of the highest priority Turnpike and Parkway major and non-major bridges.

Status – design and construction is on-going

### **7. Turnpike Interchange 16E-18E Bridge Improvements**

This project provided for the widening and re-decking of Structure No. E112.58A and the widening of Secaucus Road, Structure No. E112.10.

Status – design and construction completed and opened to traffic – 2012

### **8. Turnpike Hackensack East Bridge Rehabilitation**

This project provided for the design and construction of the rehabilitation on the Turnpike's existing Eastern Hackensack River Bridge, Structure No. E109.83. The primary work included bridge re-decking, structural repairs and seismic retrofit.

Status – design and construction completed and opened to traffic – April 2015

### **9. Newark Bay-Hudson County Extension Bridge Re-decking**

This project provides for the design and construction of the re-decking of various structures on the Newark Bay-Hudson County Extension, including the Newark Bay Bridge, Structure No. N2.01. This project also provides for the repairs to structural steel and substructure units, security improvements, and painting.

Status – design and construction on-going

#### **10. Turnpike Special Bridge Structures**

This project provides for the design and construction of specialized bridge repairs on the Turnpike that are not covered under the annual miscellaneous structural repair contracts. The primary work includes mitigation of concrete deterioration caused by Alkali-Silica Reaction (ASR), pile replacement, cable suspender replacements, and high mast lighting repairs.

Status – design and construction is on-going

#### **11. Parkway Bass River Bridge**

This project provided for the design and construction of improvements to the Parkway crossing of the Bass River. The primary work included the construction of a new parallel bridge and re-decking, structural repairs and seismic retrofit on the existing bridge, Structure No. 51.9.

Status – design and construction completed and opened to traffic – May 2015

#### **12. Parkway Mullica River Bridge**

This project provided for the design and construction of improvements to the Parkway crossing of the Mullica River. The primary work included the construction of a new parallel bridge and re-decking, structural repairs and seismic retrofit on the existing bridge, Structure No. 49.0.

Status – design and construction of new bridge completed and opened to traffic – December 2012. Design and reconstruction of existing bridge completed and opened to traffic – April 2014.

#### **13. Parkway Bridge Substructure Repairs**

This project provided for the design and construction of repairs and rehabilitation of the existing Driscoll Bridge, Structure 127.2, along with pier caps, columns, and substructure elements on other water crossings.

Status – design and construction completed and opened to traffic – December 2015

#### **14. Parkway Great Egg Harbor/Drag Channel Bridges**

This project provides for the design and construction of a new parallel bridge carrying the southbound Parkway over Great Egg Harbor and Drag Channel. The new bridge will be constructed west of the existing southbound structure. The new bridges include a new 3,834-foot-long bridge over Great Egg Harbor and a new 770-foot-long bridge over Drag Channel. Construction will also include approximately 4,900 linear feet of new approach roadways; demolition of the existing southbound bridge; rehabilitation of the northbound Parkway bridge; and demolition of the nearby existing Beesley's Point Bridge. Special construction features include use of high performance concrete for the bridge decks, a ten-foot-wide multi-use pathway on the west side of the new bridges and approach roadways, and a plastic lumber fender system to protect the bridge piers.

Status – design and construction is on-going

#### **Roadway Improvements**

#### **15. Drainage Improvements**

This project includes design services and construction to rehabilitate or replace non-functioning and substandard drainage systems. The project also includes the analysis of the

condition of existing median inlets along the Authority's mainline and interchange ramp roadways, and will construct recommended improvements in compliance with current environmental regulations.

Status – design and construction is on-going

#### **16. Improvements to Roadway Appurtenances**

This project provides for upgrading various guide rail, guide rail end treatments, and crash cushions along the Parkway and Turnpike.

Status – design and construction is on-going

#### **17. Median Barrier Improvements**

This project included the inspection and condition assessment of concrete median barrier, and the implementation of a repair/replacement/upgrade program along the Parkway and Turnpike mainline and interchange ramps. The project included sections of severely deteriorated concrete median barrier that required replacement between Parkway MP 141 and MP 160.

Status – design and construction completed – July 2014

#### **18. Guide Sign Replacements Phase I**

This project includes inspection, assessment and implementation of the remedial measures necessary to bring dated mainline and interchange guide signing into compliance with current standards. This project will upgrade existing Parkway and Turnpike guide signs and structures, along the mainline, ramps or at facilities to the current design standards. The project includes the study and assessment of current signing legends and locations along with recommendations and plans to procure the construction services necessary to bring signing into compliance with current standards.

Status – design and construction is on-going

#### **19. Guide Sign Replacements Phase II**

This project included the deployment of 244 Variable Message Signs (VMSs) at various locations along the length of the Turnpike and the Parkway. The project provided for design and construction of VMS sign supports, provision and installation of VMS signs, and connectivity utilizing fiber optic communications networks back to the Statewide Traffic Management Center (STMC). All signs are monitored and controlled from the STMC.

Status – design and construction completed – June 2015

#### **20. Turnpike and Parkway Southern Improvements**

This project provided miscellaneous improvements to mainline and interchanges located in the southern portion of the Turnpike between Interchange 1 and Interchange 4 and on the Parkway between MP 0 and MP 48.

Status – design and construction completed – December 2015

#### **21. Parkway Mainline Shoulder Improvements**

In the late 1980's, the right and left mainline shoulders from MP 80 to MP 100 on the Parkway were eliminated and the width of the travel lanes was reduced to create a third travel lane in both the northbound and southbound directions between Interchanges 80 and 91 and a fourth



lane between Interchanges 91 and 98. The geometric changes were made to provide additional capacity to meet the traffic demands along this section of the Parkway. This project reconstructed the mainline roadway to provide full-width right and left shoulders and to widen the driving lanes to widths that meet current standards.

Status – design and construction completed and opened to traffic - December 2015

### **Interchange Improvements**

#### **22. Facilities Improvements Phase II**

This project includes improvements to interchanges on the Turnpike and Parkway. Interchange locations include Turnpike Interchanges 9, 10, 15W, 16W, and Parkway Interchanges 0, 105, 109, 145, 163.

Status – design and construction is on-going

#### **23. Turnpike Interchange 8A to Route 130 Connector Improvements**

This project will address significant traffic congestion near Interchange 8A. The project limits include a section of Route 32 between Interchange 8A and the interconnection of Route 32 with Route 130. Middlesex County has requested that the Authority undertake appropriate improvements on the basis that much of the traffic within the corridor is destined to or from the Turnpike.

Status – design and construction is on-going

#### **24. Turnpike Interchange 14A Reconstruction**

There are operational limitations due to constrained geometry for this existing Turnpike interchange that it is located within the cities of Bayonne and Jersey City. The proposed redevelopment of the Military Ocean Terminal in Bayonne along with Global Terminal will result in a significant increase in traffic using the Interchange 14A toll plaza. The interchange capacity will be improved and two additional toll lanes will be added to the existing toll plaza to address the operational and capacity deficiencies of the existing interchange.

Status – design and construction is on-going

#### **25. Parkway Interchange 41 Improvements**

At Interchange 41, local traffic previously accessed the Parkway through a service road to the Atlantic City Service Area from Jimmie Leeds Road. This project provided two additional ramps to allow Parkway access at Jimmie Leeds Road to and from the south.

Status – design and construction completed and opened to traffic – August 2015

#### **26. Parkway Interchange 142 Improvements**

This project was a joint cooperative project between the Authority and the New Jersey Department of Transportation (NJDOT) that provided for the design and construction of missing ramp connections between the Parkway and I-78. The project also provided improvements to the interchange's existing ramp network, toll plaza and to the I-78 mainline. The project was funded by the Federal Highway Administration, NJDOT, and the Authority. This project cost represents the Authority's share of the overall cost of the project.

Status – design and construction completed and opened to traffic – December 2015

## **27. Parkway Interchange 44 Improvements**

Interchange 44 previously provided access to the Parkway to and from the north only. This project completed the interchange to provide two additional ramps to allow access to and from the south.

Status – design and construction completed and opened to traffic – August 2015

## **28. Parkway Interchanges 9, 10 & 11 Improvements**

There were three traffic signals on the Parkway in Cape May County at Interchanges 9, 10 and 11. This project eliminated the traffic signals by providing three bridges to carry the Parkway over the local streets at each interchange. This project also provided for full access to the Parkway northbound and southbound at each interchange.

Status – design and construction completed and opened to traffic – April 2016

## **29. Parkway Interchange 125 Improvements Phase I**

Interchange 125 is presently configured with a southbound entrance and northern exit ramp. This project will provide a new northbound entrance and new southbound exit ramp. The southbound exit ramp will be tolled to be consistent with one-way tolls at the Raritan Toll Plaza.

Status – design and construction is on-going

## **30. Parkway Interchange 88 Improvements**

This project provided missing ramp movements at this partial interchange along with modifications to the existing ramp movements to and from the north and relocation of ramp toll collection facilities. The project also included the construction of two new bridges over NJ Route 70 for a collector/distributor roadway that was constructed between this location and Interchange 89.

Status – design and construction completed and opened to traffic – June 2015

## **31. Parkway Interchange 91 Improvements**

This project is a joint cooperative project between the Authority and Ocean County that provides missing ramp movements at this partial interchange along with the reconstruction and safety improvements to the existing northbound ramp toll plaza. This project also includes the construction of two extended service roads and county road improvements that will eliminate the complexity of the current traffic pattern, relieve congestion on local roads, and enhance safety.

Status – design and construction is on-going

## **Facilities Improvements**

## **32. Salt Storage Facilities**

This project provided new, increased salt storage capacity for the Turnpike and Parkway.

Status – design and construction is completed – May 2016

### **33. Facilities Improvements Phase I**

This project replaces and rehabilitates facilities at 22 Turnpike and Parkway maintenance districts to bring 50+ year old maintenance buildings into compliance with current building codes and operational standards. The project also includes repairing/rehabilitating several Turnpike toll plazas to incorporate safety and operational improvements. Finally, four new State Police facilities will be constructed under this project.

Status – design and construction is on-going

#### **Parkway Widening (Interchange 35-80)**

### **34. Parkway Widening Phase Interchanges 63-80**

This project provided for a third travel lane with full shoulders in each direction on the Parkway and Express *E-ZPass*/One-Way Southbound Tolls at the Barnegat Toll Plaza. Three (3) individual design and construction contracts were provided for mainline widening of the 17-mile section in both directions, new sign structures, ten bridge replacements, realignment of the Parkway at the Barnegat Toll Plaza to provide for the elimination of tolls in the northbound direction, creating Express *E-ZPass* operation in the southbound direction, and a new toll utility building.

Status – design and construction completed and opened to traffic – May 2011

### **35. Parkway Widening Phase Interchanges 35-63**

This project provides for the construction of a third travel lane with full shoulders in each direction on the Parkway. Six (6) individual design and construction contracts will provide for the widening of the 28-mile section in both directions the Parkway, new sign structures, and multiple bridge replacements.

Status – design and construction is on-going

## **OPERATING EXPENSES**

The Authority is currently pursuing an overall financial program that is designed to introduce efficiencies, reduce costs, and otherwise lower Authority operations financial needs. However, because of the additional roadway infrastructure being constructed under the CIP becoming complete and operational, Maintenance Department staffing will increase to address the additional maintenance needs created by the additional lane miles. The additional maintenance staffing is offset by a reduced headcount in other departments achieved through operational efficiencies. The Authority is also being conservative when budgeting for maintenance activities due to severe weather and other unexpected events. The severe winter of 2014 and the lingering effects of Superstorm Sandy have provided great experience and a new basis for budget planning for such events. The Authority has adopted a philosophy to budget for the worst actual expenditures so that there will be sufficient funds available to address severe weather and other unexpected events.

Non-discretionary budget items such as insurance premiums, health benefits, utilities, pension contributions, and state police costs continue to increase. The increase in maintenance needs and the non-discretionary items will cause periodic increases in the Operating Budget. Policy decisions that have been adopted during the last several years indicate a continued constraint on non-

operating staffing levels, a renegotiation of work rules under union contracts, and other procedures that have resulted in control over overall operating expenses.

A review of the history of the Authority's operating expenses was performed for periods prior to and after consolidation with the New Jersey Highway Authority, which occurred in 2003. From 1994 to 2002, the Authority's growth in operating expenses was flat. During that eight (8) year period, the operating budget decreased by \$626,300. After consolidation, for the period from 2004 to 2008, the operating expenses grew at a rate of 3.18% per year. From 2009 to 2016, however, the Authority's operating budgets remained relatively flat, increasing only slightly. In fact, from the 2011 budget to the current 2017 budget, the operating expenses (not including costs associated with snow removal and severe weather) increased only 5% over the six-year period. This is only 0.8% per year. The Authority is continuing its current operational policies with emphasis on strict cost controls. As one example, it is anticipated that future improvements in operational efficiency will continue as the percentage of **E-ZPass** users increase. At the September 29, 2015 Commission Meeting, the Authority awarded a contract for the operation of the **E-ZPass** Customer Service Center to the current vendor, Conduent (formerly known as Xerox). The Authority has revised the contract requirements for the center's operations such that Conduent will be required to manage it under the philosophy of "active management for continuous improvement", a state-of-the-art management philosophy. With these new procedures, it is anticipated that efficiencies in the operations of the customer service center will be realized over the life of the new contract. The new Customer Service Center will come online within the next year.

In addition to the annual increase in the operating budget, the capital projects included in the CIP will be completed and operational prior to 2022. These projects include:

- Widening of the Turnpike between Interchanges 6 to 9 (216 equivalent lane miles of new pavement – in service 2015)
- Construction of the Garden State Parkway Shoulder Widening - Mileposts 80 to 100 (40 equivalent lane miles of new shoulder pavement – in service 2015)
- Construction of the new Mullica River Bridge (3.5 equivalent lane miles of new pavement – in service 2013)
- Completion of the new Bass River Bridge (3.5 equivalent lane miles of new pavement – in service 2015)
- Construction of the Garden State Parkway Interchange 125 Improvements (1 equivalent lane mile of new pavement – in service 2018)
- Construction of the Garden State Parkway Interchange 91 Improvements (2 equivalent lane miles of new pavement – in service 2016)
- Construction of the Garden State Parkway Interchanges 41 and 44 Improvements (4 equivalent lane miles of new pavement – in service 2015)
- Construction of the Garden State Parkway Interchange 88 Improvements (15 equivalent lane miles of new pavement – in service 2015)
- Construction of the Garden State Parkway Interchange 35 – 48 Widening (26 equivalent lane miles on new pavement – in service 2018)
- Construction of the Garden State Parkway Interchange 48 – 63 Widening (30 equivalent lane miles on new pavement – in service 2015)
- Construction of the New Jersey Turnpike Interchange 8A Improvements (8.6 equivalent lane miles of new pavement – in service 2018)

- Construction of the New Jersey Turnpike Interchange 14A Improvements (6 equivalent lane miles of new pavement – in service 2018)
- Construction of the Garden State Parkway Interchanges 9, 10, and 11 Improvements (4 equivalent lane miles of new pavement – in service 2015)

Based on the above analyses and our professional judgment, we have applied a yearly increase of 2% for Operating Expenses for the years 2017 through 2027.

Based upon all factors presented above, our periodic review of the Authority's expenses, as well as our specific knowledge of the operations for the Turnpike and Parkway, projections for Operating Expenses for the years 2017 through 2027 are as follows:

***Estimate of Operating Expenses  
(In thousands)***

<b><u>Year</u></b>	<b><u>Amount</u></b>
2017	\$528,762
2018	\$539,594
2019	\$549,989
2020	\$560,589
2021	\$571,396
2022	\$582,415
2023	\$593,650
2024	\$605,106
2025	\$616,787
2026	\$628,690
2027	\$640,800

## **RESERVE FUND REQUIREMENTS**

Historically, the Authority has annually made deposits to the Maintenance Reserve Fund to provide funding for significant maintenance of the roadway and bridges. The Special Projects Reserve Fund was created to provide funding for various other types of projects including: safety improvements; repairs and replacements of buildings and other facilities; maintaining equipment and vehicle fleets; and improvements in administrative, tolls, and communication systems. In short, the two funds provide for the maintenance and improvement of all elements that in some manner contribute to the proper and efficient operation of the Authority's road systems.

Currently, the Authority has approximately 3,595 lane miles of pavement, 1,100 bridges that require deck maintenance, superstructure and substructure maintenance, and painting. Beginning in 2017, the Maintenance Reserve Fund budget will generally provide for the following:

- Resurface 200 lane-miles per year (move from a 15-year cycle to a 12-year cycle to resurface the entire roadway)
- Re-deck approximately eight bridge decks per year

- Maintain all bridge decks (approximately 1,100) in a state of good repair
- Paint bridges (15-year cycle for painting all bridges)

The reserve fund amounts presented below are estimates of the annual requirements to meet the needs of the Authority for the purposes cited above. The projected amounts reflect a continuation of the Authority's historic policies and practices regarding the application of the funds, and allow for annual increases commensurate with historical trends and current day economic conditions. These amounts are necessary and sufficient to meet the needs of the Authority's system, and are consistent with those presented in Consulting Engineer's reports prepared by HNTB Corporation that accompanied previous official statements. The following table presents the projected costs to maintain the Turnpike and Parkway during the period 2017 through 2027. In arriving at the amounts, it has been assumed that inflation will increase modestly during the estimate period.

*Amount in Thousands*

<i>Year</i>	<i>Maintenance Reserve Fund</i>		<i>Special Project Reserve Fund</i>	
	<i>Funding</i>	<i>Spending</i>	<i>Funding</i>	<i>Spending</i>
2017	\$116,751	\$117,000	\$39,696	\$40,490
2018	\$119,086	\$119,500	\$40,490	\$41,300
2019	\$121,468	\$121,800	\$41,300	\$42,126
2020	\$123,897	\$124,200	\$42,126	\$42,969
2021	\$126,375	\$126,700	\$42,969	\$43,828
2022	\$128,903	\$129,200	\$43,828	\$44,705
2023	\$131,481	\$131,800	\$44,705	\$45,599
2024	\$134,110	\$135,000	\$45,599	\$46,511
2025	\$136,792	\$137,500	\$46,511	\$47,441
2026	\$139,528	\$140,000	\$47,441	\$48,390
2027	\$142,319	\$143,000	\$48,390	\$49,358

## CONCLUSIONS

This report has presented information to be applied in developing the financial program for the Authority and to assist in planning capital projects for the Turnpike and Parkway. On both roads, there are roadway sections and bridges that are over 60 years old. Many projects that make up the CIP provide major reconstruction that is necessary to maintain the facilities in proper condition for safe and convenient use by the traveling public. Timely implementation of this type of extraordinary maintenance is necessary to reduce the risk of revenue loss. Other projects included in the CIP are improvements, enhancements, and asset additions that are deemed necessary. Completion of these projects will improve safety and operations and likely increase revenues.

## **APPENDIX D**

### **SUMMARY OF GENERAL BOND RESOLUTION AND CERTAIN DEFINITIONS**

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## SUMMARY OF GENERAL BOND RESOLUTION AND CERTAIN DEFINITIONS

A brief description of the General Bond Resolution and certain definitions used therein is included in this Appendix D. Such descriptions do not purport to be comprehensive or definitive and all references herein to the General Bond Resolution are qualified in their entirety by reference to the full text of the General Bond Resolution.

### CERTAIN DEFINITIONS

The following is a summary of the definitions of certain terms used in the General Bond Resolution :

**"Accreted Value"** means, with respect to Capital Appreciation Bonds, the amount to which, as of any specified time, the principal of any such Bond has been increased by accretion, all as may be provided in an applicable Series Resolution.

**"Accrued Debt Service"** means, as of any date of calculation and with respect to any Series, an amount equal to the sum of (i) interest on the Bonds of such Series accrued and unpaid and to accrue to the end of the then current calendar month, (ii) all amounts due and payable by the Authority and all amounts to accrue to the end of the then calendar month pursuant to a Qualified Swap, and (iii) Principal Installments due and unpaid for such Series and that portion of the Principal Installment for such Series next due which would have accrued to the end of such calendar month if deemed to accrue monthly from a date one year prior to its due date or from the date of issuance of each such Series, whichever is later.

**"Aggregate Debt Service"** means, for any calendar year and as of any date of calculation, the sum of the amounts of Debt Service for such year with respect to all Series of Bonds then Outstanding and all Qualified Swaps then in effect.

**"Annual Budget"** means the annual budget, as amended or supplemented, adopted or in effect for a particular calendar year pursuant to the General Bond Resolution.

**"Arts Center"** means the Garden State Arts Center (currently known as the PNC Bank Arts Center), which is owned by the Authority.

**"Authority"** means the New Jersey Turnpike Authority, a body corporate and politic organized and existing under the New Jersey Turnpike Authority Act of 1948, constituting Chapter 454 of the Laws of New Jersey of 1948, as amended and supplemented from time to time.

**"Authorized Denomination"** means the minimum denomination, or any integral multiple thereof, in which a particular Series of Bonds may be issued pursuant to the applicable Series Resolution. In the case of Capital Appreciation Bonds, the Authorized Denominations may be stated in terms of Accreted Value at maturity or such earlier time as the Bonds are required to commence paying interest.

**"Authorized Officer"** means any member of the Authority or any officer or employee of the Authority authorized to perform specific acts or duties by resolution duly adopted by the Authority.

**"Bond" or "Bonds"** means any Bond or Bonds authenticated and delivered under and pursuant to the General Bond Resolution and an applicable Series Resolution and any obligations issued on or after August 20, 1991 under, or pursuant to the authority of, the 1984 Resolution which the Authority determines are entitled to the benefits of the General Bond Resolution. The term "Bond" shall include

Parity Variable Rate Bonds, any short term note or other debt obligation of the Authority, but shall not include any Variable Rate Debt, Commercial Paper or any Subordinated Indebtedness.

**"Capital Appreciation Bonds"** means any Bond issued pursuant to the General Bond Resolution and a Series Resolution which do not pay interest either until maturity or until a specified date prior to maturity, but whose amount increases periodically by accretion to a final principal amount.

**"Charges Fund"** means the Charges Fund established in the applicable Series Resolution related to a Qualified Swap to provide for the payment of fees and charges of the Standby Purchaser, the Remarketing Agent and the Tender Agent.

**"Code"** means the Internal Revenue Code of 1986, as amended, or any successor thereto, as the same may be in effect from time to time.

**"Commercial Paper"** means any note or other obligation of the Authority, subject to renewal at the end of any rate period, other than Variable Rate Debt, the term of which (prior to any renewal thereof) does not exceed 270 days.

**"Consulting Engineers"** means such engineer or engineering firm or corporation as at the time shall be retained by the Authority pursuant to the General Bond Resolution to perform the acts and carry out the duties provided for such Consulting Engineers in the General Bond Resolution.

**"Cost of Construction"** means with respect to any Project, the cost of construction and/or acquisition, and equipping, including without limitation, bridges or crossings over or under rivers, streams or other waters or over highways and railroads, the cost of acquisition of all land, rights-of-way, property, rights, easements and interests acquired or to be acquired by the Authority, the cost of demolishing or removing any buildings or structures on land so acquired, including the cost of acquiring any lands to which such buildings or structures may be moved, the cost of relocating or reconstructing highways, highway interchanges, access roads to private property, including the cost of land or easements therefor, the response costs, direct and indirect (including but not limited to the costs of testing, investigation, feasibility studies, remediation, treatment, clean-up, removal, litigation, fines and penalties related thereto) incurred with respect to any environmental hazard or perceived environmental hazard under federal, State or local laws or regulations and any third party claims with respect to such hazard or perceived hazard, the amount of any final award or judgment in, or any settlement or compromise of, any proceeding to acquire lands, rights-of-way, easements or other interests, the payment of damages caused by construction in the manner provided by law, the cost of any indemnity and surety bonds and premiums on insurance during construction, administrative expenses, legal fees, cost of audits, the cost of all machinery and equipment, initial inventories, financing expenses, fees and expenses of the Fiduciaries and costs of keeping accounts and making reports required by the General Bond Resolution, cost of traffic estimates and of engineering, financial and legal services, plans, specifications, surveys, estimates of costs and revenues, and other expenses necessary or incident to determining the feasibility or practicability of constructing or acquiring such Project, amounts, if any, required by the General Bond Resolution to be paid into the Debt Service Fund, the Debt Reserve Fund, the Maintenance Reserve Fund or the Special Project Reserve Fund, payments when due (including without limitation, on any early termination date) under a Qualified Swap and payments when due (whether at the maturity of principal or the due date of interest or upon redemption) on any indebtedness of the Authority (other than Bonds), including Variable Rate Debt, Commercial Paper and Subordinated Indebtedness, incurred for such Project, all to the extent applicable to the construction and/or acquisition of such Project and payable by the Authority, and such other expenses payable by the Authority not specified herein as may be necessary or incident to the construction and/or acquisition of such Project and the placing of such Project in operation.

**"Credit Facility"** means any letter of credit, standby bond purchase agreement, line of credit, surety bond, insurance policy or other insurance commitment or similar agreement (other than a Qualified Swap or an Exchange Agreement), satisfactory to the Authority, that is provided by a commercial bank, insurance company or other entity, with a current long term rating (or whose obligations thereunder are guaranteed by an entity with a long term rating) from Moody's and S&P not lower than the credit rating of any Series of Bonds, to provide support for a Series of Bonds or for any issue of Variable Rate Debt, Commercial Paper or Subordinated Indebtedness, and shall include any Substitute Credit Facility.

**"Credit Issuer"** means the issuer of the Credit Facility or any Substitute Credit Facility.

**"Debt Reserve Fund"** means the Debt Reserve Fund established in the General Bond Resolution to secure the Bonds.

**"Debt Reserve Requirement"** means with respect to all Bonds an amount equal to the lesser of (i) the greatest amount of interest accruing on the Outstanding Bonds in any one calendar year taking into account the increased Accreted Value of Capital Appreciation Bonds in such calendar year (except that the incremental amount attributable to any Parity Variable Rate Bonds may be based upon the fixed rate of interest as set forth in the Series Resolution for such Bonds), determined as of any particular date or (ii) the maximum amount permitted by Section 148(d)(1) of the Code.

**"Debt Service"** means, for any period, as of any date of calculation and with respect to any Series, an amount equal to the sum of (i) interest accruing during such period on Bonds of such Series, except to the extent that such interest is to be paid from Bond proceeds deposited in the Debt Service Fund, (ii) all net amounts, if any, due and payable by the Authority under a Qualified Swap during such period, and (iii) that portion of each Principal Installment for such Series which would accrue during such period if such Principal Installment were deemed to accrue monthly from a date one year prior to its due date or from the date of issuance of such Series, whichever is later, such amounts in clauses (i) and (iii) to be calculated on the assumption that Bonds Outstanding at the date of calculation will cease to be Outstanding by reason, but only by reason, of the payment of each Principal Installment on its due date; provided however, that in calculating Aggregate Debt Service for purposes of meeting the requirements for issuing Refunding Bonds under the General Bond Resolution and in calculating the Net Revenue Requirement for purposes of meeting the requirements for issuing Non-Refunding Bonds and Refunding Bonds and complying with the Authority's covenants concerning tolls and charges under the General Bond Resolution, Debt Service on Bonds for which the Authority has entered into a Qualified Swap shall be calculated assuming that the interest rate on such Bonds shall equal the stated fixed rate on the Qualified Swap or, if applicable and if greater than such stated fixed rate, the composite rate for the Authority's Parity Variable Rate Bonds for the twelve (12) month period preceding such calculation or such lesser period, if any, of at least three (3) months during which such Parity Variable Rate Bonds were Outstanding, in either case resulting in no assumed payment for purposes of clause (ii) above.

**"Depository"** means any bank, national banking association, savings or savings and loan institution or trust company selected by the Authority as a depository of moneys and securities held under the provisions of the General Bond Resolution, and may include the Trustee and may include the New Jersey Cash Management Fund.

**"Exchange Agreement"** means, to the extent from time to time permitted by applicable law, any interest exchange agreement, interest rate swap agreement, currency swap agreement or other contract or agreement, other than a Qualified Swap, authorized, recognized and approved by the Authority as an Exchange Agreement and providing for (i) certain payments by the Authority from the General Reserve Fund and (ii) payments by an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability, or whose obligations under an Exchange Agreement are guaranteed by an entity whose senior long term debt obligations, other senior unsecured long term

obligations or claims paying ability are rated not less than A3 by Moody's and A- by S&P, or the equivalent thereof by any successor thereto; which payments by the Authority and counterparty are calculated by reference to fixed or variable rates and constituting a financial accommodation between the Authority and such counterparty.

**"Federal Securities"** means (i) any direct and general obligations of, or any obligations guaranteed by, the United States of America, including but not limited to interest obligations of the Resolution Funding Corporation or any successor thereto, (ii) any obligations of any state or political subdivision of a state (collectively "Municipal Bonds") which Municipal Bonds are fully secured as to principal and interest by an irrevocable pledge of moneys or direct and general obligations of, or obligations guaranteed by, the United States of America, which moneys or obligations are segregated in trust and pledged for the benefit of the holders of the Municipal Bonds, and (iii) certificates of ownership of the principal or interest of direct and general obligations of, or obligations 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.

**"Feeder Road"** means any road which in the opinion of the Authority creates or facilitates access to the Turnpike System and the acquisition, construction or repair of which by the Authority will increase or maintain Net Revenues after giving effect to the costs to the Authority of acquiring, constructing, repairing, maintaining and operating such road.

**"Fiduciary" or "Fiduciaries"** means the Trustee, the Registrar, the Tender Agent and the Paying Agents, or any or all of them, as may be appropriate.

**"Fitch"** means Fitch Ratings and any successor thereto.

**"General Project"** means a project, other than a Turnpike Project, which the Authority is authorized by law to undertake and all or a portion of the costs of which will be paid from the General Reserve Fund or from the proceeds of Subordinate Indebtedness.

**"Investment Securities"** means any of the following securities legal for the investment of the Authority funds at the time of purchase thereof:

- (i) Federal Securities;
- (ii) Bonds, debentures, notes or other evidences of indebtedness issued by any agency or instrumentality of the United States to the extent such obligations are guaranteed by the United States or by another such agency the obligations (including guarantees) of which are guaranteed by the United States;
- (iii) Bonds, debentures, notes or other evidences of indebtedness issued by any of the following agencies: Government National Mortgage Association, Federal Land Banks, Federal Home Loan Mortgage Corporation, Federal National Mortgage Association, Federal home Loan Banks, Federal Intermediate Credit Banks, Banks for Cooperatives, Tennessee Valley Authority, United States Postal Service, Farmers Home Administration, Export-Import Bank, Federal Financing Bank and Student Loan Marketing Association;
- (iv) Negotiable or non-negotiable certificates of deposit issued by any bank, trust company or national banking association, which certificates of deposit shall be continuously secured or collateralized by obligations described in subparagraphs (i) or (ii) of this definition, which shall have a market value (exclusive of accrued interest) at all times at least equal

to the principal amount of such certificates of deposit and shall be lodged with the Trustee, as custodian, by the bank, trust company or national banking association issuing such certificates of deposit;

- (v) Uncollateralized negotiable or non-negotiable certificates of deposit issued by any bank, trust company or national banking association, the unsecured obligations of which are rated in one of the two highest rating categories, without regard to rating sub-categories, by Moody's and S&P;
- (vi) Repurchase agreements collateralized by obligations described in subparagraphs (i), (ii) or (iii) of this definition with any registered broker/dealer subject to the Securities Investors' Protection Corporation jurisdiction, which has an uninsured, unsecured and unguaranteed obligation rated "Prime-1" or "A3" or better by Moody's and "A-1" or "A" or better by S&P, or any commercial bank with the above ratings, provided:
  - (a) a master repurchase agreement or specific written repurchase agreement governs the transaction, which characterizes the transaction as a purchase and sale of securities,
  - (b) the securities are held free and clear of any lien by the Trustee or an independent third party acting solely as agent for the Trustee, and such third party is (i) a Federal Reserve Bank, (ii) a bank which is a member of the Federal Deposit Insurance Corporation and which has combined capital, surplus, and undivided profits of not less than \$75,000,000, or (iii) a bank approved in writing for such purpose by each Credit Issuer, if any, and the Trustee shall have received written confirmation from such third party that it holds such securities, free and clear of any lien, as agent for the Trustee,
  - (c) a perfected first security interest under the Uniform Commercial Code, or book entry procedures prescribed at 31 CFR 306.1 *et seq.* or 31 CFR 350.0 *et seq.* or a successor provision in such securities is created for the benefit of the Trustee,
  - (d) the repurchase agreement has a term of six months or less, or the Authority will value the collateral securities no less frequently than monthly and will liquidate the collateral securities if any deficiency in the required collateral percentage is not restored within two business days of such valuation,
  - (e) the repurchase agreement matures on or before a debt service payment date (or other appropriate liquidation period), and
  - (f) the fair market value of the securities in relation to the amount of the repurchase obligation is equal to at least 100%.
- (vii) Banker's acceptances, eurodollar deposits and certificates of deposit (in addition to the certificates of deposit provided for by subparagraphs (iv) and (v) above) of the domestic branches of foreign banks having a capital and surplus of \$1,000,000,000 or more, or any bank or trust company organized under the laws of the United States of America or Canada, or any state or province thereof, having capital and surplus, in the amount of \$1,000,000,000; provided that the aggregate maturity value of all such banker's acceptances and certificates of deposit held at any time as investments of funds under the General Bond Resolution with respect to any particular bank, trust company, or national association shall not exceed 5% of its capital and surplus; and provided further that any

such bank, trust company, or national association shall be rated in one of the two highest rating categories, without regard to rating sub-categories, by both S&P and Moody's;

- (viii) Other obligations of the United States of America or any agency thereof which may then be purchased with funds belonging to the State or which are legal investments for savings banks in the State;
- (ix) Deposits in the New Jersey Cash Management Fund;
- (x) Obligations of any state, commonwealth or possession of the United States or a political subdivision thereof or any agency or instrumentality of such a state, commonwealth, possession or political subdivision, provided that at the time of their purchase such obligations are rated in either of the two highest rating categories by both S&P and Moody's; and
- (xi) Commercial paper with a maturity date not in excess of 270 days rated A-1+ by S&P and P-1 by Moody's at the time of such investment, issued by an entity incorporated under the laws of the United States or any state thereof.

**"Liquidity Facility"** means any letter of credit, line of credit or standby loan commitment made available to fund purchases of Variable Rate Debt, Commercial Paper or Subordinated Indebtedness upon maturity or mandatory optional tender of such obligations; such Liquidity Facility may be part of, or separate from, any Credit Facility or Substitute Credit Facility supporting such obligations.

**"Maintenance Reserve Payment"** means any amount provided in the Annual Budget for any calendar year to be deposited in the Maintenance Reserve Fund during such year.

**"Moody's"** means Moody's Investors Service, Inc. and any successor thereto.

**"Net Revenue Requirement"** means, with respect to any period of time, an amount equal to the greater of (i) the sum of Aggregate Debt Service, Maintenance Reserve Payments, Special Project Reserve Payments and payments, if any, to the Charges Fund for such period or (ii) 1.20 times the Aggregate Debt Service for such period (excluding, for purposes of clause (ii) only, any payment due and payable by the Authority under a Qualified Swap upon an early termination thereof).

**"Net Revenues"** means, for any calendar year or other period of time, the Pledged Revenues during such year or period less the amounts of the Operating Expenses for such year or period.

**"Non-Refunding Bonds"** means all Bonds issued pursuant to Section 203 of the General Bond Resolution.

**"Operating Expenses"** means the Authority's expenses for operation, maintenance, repairs, ordinary replacement and ordinary reconstruction of the Turnpike System and ordinary acquisition of equipment for the Turnpike System; including, without limiting the generality of the foregoing, all policing, administrative and engineering expenses, legal and financial advisory expenses, fees and expenses of the Fiduciaries, required payments to pension, retirement, health and hospitalization funds, insurance premiums, Credit Facility fees (except Credit Facility fees, charges and premiums to the extent such fees, charges and premiums are treated as interest under the Code) and any provision or reserves for self-insurance, all arbitrage rebate payments required by Section 148 of the Code to be made from time to time to the United States Government, and any other current expenses or obligations required to be paid by the Authority under the provisions of the General Bond Resolution or by law, all to the extent properly and directly attributable to the operation of the Turnpike System, but excluding any costs or expenses for

new construction or any allowance for depreciation and any costs and expenses paid or required to be paid by any party other than the Authority.

**"Parity Variable Rate Bonds"** means Bonds issued pursuant to the General Bond Resolution and a Series Resolution bearing interest at a variable rate and specifying a maximum rate of interest permitted by law provided that at least one of the following conditions is met: (i) at the time of issuance, the Authority has entered into a Qualified Swap with respect to such Bonds or (ii) the Bonds bear interest at a variable rate, but are issued concurrently in equal par amounts with other Bonds bearing interest at a variable rate and which are required to remain Outstanding in equal amounts at all times, if the net effect of such equal par amounts and variable rates at times is a fixed rate of interest to the Authority.

**"Pledged Revenues"** means (i) all Turnpike Revenues, (ii) other revenues of the Authority, including but not limited to payments to the Authority under any Qualified Swap, but in all cases only to the extent specifically pledged pursuant to one or more Series Resolutions to secure Bonds issued under the General Bond Resolution, and (iii) investment income from any moneys or securities held under the General Bond Resolution and paid into the Revenue Fund.

**"Principal Installment"** means, as of any particular date of calculation and with respect to any particular future date and with respect to Bonds of a particular Series, (i) the principal amount of Outstanding Bonds of said Series which mature on such future date, taking into account the Accreted Value of any Capital Appreciation Bond but reduced by the aggregate principal amount of such Outstanding Bonds which would at or before said future date cease to be Outstanding by reason, but only by reason, of the payment when due and application in accordance with the General Bond Resolution of Sinking Fund Installments payable on or before said future date toward the retirement of such Outstanding Bonds, and (ii) the amount of any Sinking Fund Installment payable on said future date toward the retirement of any Outstanding Bonds of said Series.

**"Purchase and Remarketing Fund"** means, with respect to each Series of Bonds subject to tender purchase pursuant to the applicable Series Resolution, the Fund so designated in such Series Resolution.

**"Qualified Swap" or "Swap Agreement"** means, with respect to a Series of Bonds, any financial arrangement (i) that is entered into by the Authority with an entity that is a Qualified Swap Provider at the time the arrangement is entered into; (ii) which provides that the Authority shall pay to such entity an amount based on the interest accruing at a fixed rate on an amount equal to the principal amount of the Outstanding Bonds of such Series, and that such entity shall pay to the Authority an amount based on the interest accruing on a principal amount initially equal to the same principal amount as such Bonds, at a variable rate of interest computed according to a formula set forth in such arrangement (which need not be the same as the actual rate of interest borne by the Bonds) or that one shall pay to the other any net amount due under such arrangement; and (iii) which has been designated in writing to the Trustee by an Authorized Officer of the Authority as a Qualified Swap with respect to the Bonds; provided, however, that if the Bonds corresponding to such Qualified Swap are retired in whole, unless the Qualified Swap is also terminated, the Qualified Swap Provider shall then be entitled to receive a Counsel's Opinion from the law firm or firms rendering an opinion as to the Authority's obligations under the Swap Agreement on its date of issue, as to whether or not the Swap Agreement is a valid and binding obligation of the Authority after such retirement of the Bonds under then existing law.

**"Qualified Swap Provider"** means, with respect to a Series of Bonds, an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability or whose payment obligations under a Qualified Swap are guaranteed by an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying are rated (at the time the

subject Qualified Swap is entered into) at least as high as A3 by Moody's and A- by S&P, or the equivalent thereof by any successor thereto.

**"Rating Agencies"** means (i) each of Fitch, Moody's and S&P so long as each such agency shall have assigned a rating to any Series of Bonds and (ii) any other nationally recognized securities rating agency which shall have assigned a rating to any Series of Bonds.

**"Series Resolution"** means any resolution of the Authority adopted pursuant to the General Bond Resolution to authorize the issuance of a particular Series of Bonds.

**"Special Project"** means any (i) major resurfacing of the Turnpike System, replacement or reconstruction of the Turnpike System or any part thereof, or any other major or extraordinary repairs, renewals or replacements of the Turnpike System, (ii) studies, surveys, estimates and investigations in connection with any of the foregoing purposes, and (iii) advance or contribution authorized by the Act for the State of New Jersey's share or any portion thereof under the Federal aid highway laws of the cost of construction of any highway improvement determined by the Authority to be a major improvement necessary to restore or prevent physical damage to the Turnpike System, for the safe or efficient operation of such System, or to prevent loss of Pledged Revenues.

**"Special Project Reserve Payment"** means any amount provided or required to be provided in the Annual Budget for any calendar year to be deposited in the Special Project Reserve Fund during such year.

**"Special Project Reserve Requirement"** means, as of any date of calculation, (i) at any time during the period commencing January 1, 1992 and ending December 31, 1995, an amount equal to \$25,000,000, (ii) for calendar year 1996, an amount equal to \$30,000,000, (iii) for calendar year 1997, an amount equal to \$35,000,000, (iv) for calendar year 1998, an amount equal to \$40,000,000, (v) for calendar year 1999, an amount equal to \$45,000,000, and (vi) for calendar year 2000 and each year thereafter, an amount equal to \$50,000,000.

**"Special Treasury Obligations"** means United States Treasury Certificates of Indebtedness, Notes and Bonds-State and Local Government Series.

**"S&P"** means Standard & Poor's, a division of The McGraw-Hill Companies, Inc., and any successor thereto.

**"Standby Agreement"** means, with respect to a Series of Bonds, an irrevocable letter of credit and related reimbursement agreement, line of credit, standby bond purchase agreement or similar agreement providing for the purchase of all or a portion of the Bonds of such Series, as amended, supplemented or extended from time to time.

**"Standby Purchaser"** means, with respect to a Series of Bonds, the provider of the Standby Agreement for such Series of Bonds.

**"State"** means the State of New Jersey.

**"Subordinated Indebtedness"** means any evidence of indebtedness permitted to be issued in accordance with the provisions described herein under the caption "Variable Rate Debt; Commercial Paper; Subordinated Indebtedness".

**"Substitute Credit Facility"** means any letter of credit, standby bond purchase agreement, line of credit, surety bond, insurance policy or other insurance commitment or similar agreement (other than a



Qualified Swap or an Exchange Agreement), satisfactory to the Authority, that replaces a Credit Facility and is provided by a commercial bank, insurance company or other financial institution with a current long term credit rating (or whose obligations thereunder are guaranteed by a financial institution with a long term credit rating) from Moody's and S&P not lower than the credit rating of any Series of Bonds.

**"Supplemental Resolution"** means any resolution of the Authority adopted pursuant to Article XI of the General Bond Resolution.

**"Tax Exempt Obligations"** means Bonds of the Authority the interest on which is intended to be excluded from gross income of the Owners thereof for purposes of federal income tax, except for any alternative minimum or similar tax.

**"Tender Agent"** means, with respect to a Series of Bonds, any commercial bank or trust company organized under the laws of any state of the United States or any national banking association designated as a tender agent for such Series of Bonds, and its successor or successors hereafter appointed in the manner provided in the applicable Series Resolution.

**"Traffic Engineers"** means such engineer or engineering firm or corporation at the time retained by the Authority pursuant to the General Bond Resolution to perform the acts and carry out the duties provided for such Traffic Engineers in the Resolution.

**"Turnpike Project" or "Project"** means (a) any express highway, superhighway or motorway authorized under the Act to be acquired or constructed by or on behalf of the Authority and that, except for (i) the I-95 extension referred to in Section 19 of the Act and (ii) a proposed by-pass highway at Hightstown, is subject to tolls and charges by the Authority under Section 27:23-9 of the Act, and (b) the Arts Center, all bridges, tunnels, overpasses, underpasses, interchanges, entrance plazas, approaches, toll facilities, service areas, service stations, service facilities, communications facilities, park and ride projects, Feeder Roads and administration, storage and other buildings, machinery and equipment, and all other structures, facilities and appurtenances necessary for the construction, operation or maintenance of the Turnpike System and all replacements, improvements and modifications thereto, together in each case with all land and rights in land required therefor.

**"Turnpike Revenues"** means (i) all tolls, revenues, fees, charges, rents and other income and receipts derived from the operation of the Turnpike System, (ii) the proceeds of any business interruption insurance relating to the Turnpike System and of any other insurance which insures against loss of Turnpike Revenues, and (iii) amounts on deposit in the Construction Fund, the Special Project Reserve Fund and the General Reserve Fund, and available for deposit in the Revenue Fund and actually deposited therein.

**"Turnpike System"** means the existing New Jersey Turnpike and all Turnpike Projects in addition thereto.

**"Variable Rate Debt"** means obligations of the Authority, other than Parity Variable Rate Bonds, Commercial Paper or Subordinated Indebtedness, bearing interest at a variable rate and specifying a maximum rate of interest permitted by law.

## **SUMMARY OF CERTAIN PROVISIONS OF THE GENERAL BOND RESOLUTION**

The following is a brief summary of certain provisions of the General Bond Resolution .

### **Issuance of Non-Refunding Bonds (General Bond Resolution, Section 203)**

One or more Series of Non-Refunding Bonds may be issued for the purpose of (i) paying the Costs of Construction of a Project and (ii) to raise funds to complete any Project for which Non-Refunding Bonds were issued pursuant to clause (i) above, subject to the following conditions and tests, among others:

(1) The Net Revenues for any period of 12 consecutive calendar months (reflecting any adjustment in toll rates made at any time during such period as if such toll rates were effective since the beginning of such period out of the preceding 24 calendar months equal or exceed the Net Revenue Requirement for such 12 months without regard to the Bonds to be issued; and

(2) The estimated Net Revenues for the then current and each future calendar year to and including the fifth full calendar year after the estimated date when the Project will be placed in service equal or exceed the Net Revenue Requirement for each such year and Net Revenues in the fifth such calendar year equal or exceed future maximum Aggregate Debt Service in any year.

(3) There will be deposited (i) in the Debt Reserve Fund the amount, if any, necessary so that the balance in such fund equals the Debt Reserve Requirement, calculated immediately after delivery of such Non-Refunding Bonds, (ii) in any other Fund the amount required by the Series Resolution, and (iii) in the Construction Fund for the Project specified by the Series Resolution the remaining balance.

For the purposes of the above tests, the estimated Net Revenues are to be based on estimates by the Authority's Traffic Engineers, as defined in the General Bond Resolution, of Turnpike Revenues and estimates by the Authority's Consulting Engineers, as defined in the General Bond Resolution, of Operating Expenses and are to give effect to the construction of the Project for which such Bonds are being issued and any other uncompleted Project. The estimates of the Traffic Engineers are to reflect the effect of the construction, improvement or acquisition of any highway or other facility which any Federal, State or other agency is then projecting or planning and which, in their opinion, may be materially competitive with any part of the Turnpike System.

### **Issuance of Refunding Bonds (General Bond Resolution, Section 204)**

One or more Series of Refunding Bonds may be issued to refund (i) any or all Outstanding Bonds of one or more Series or maturities within a Series or Bonds within a maturity or (ii) any Variable Rate Debt, Commercial Paper or Subordinated Indebtedness.

Bonds may be issued to refund outstanding Bonds only if, among other conditions, (i) either the Authority meets the tests described above under "ISSUANCE OF NON-REFUNDING BONDS" or Aggregate Debt Service is not increased for any calendar year as a result of such refunding and (ii) if there shall be in effect a Qualified Swap with respect to the Bonds to be refunded and such Qualified Swap shall be terminated upon the date such Refunding Bonds are issued, moneys in an amount sufficient to make the payment, if any, due by the Authority under such Qualified Swap upon such termination are deposited with the Trustee.

The issuance of Bonds to refund Variable Rate Debt, Commercial Paper or Subordinated Indebtedness is subject to substantially the same conditions and tests referred to above under "ISSUANCE OF NON-REFUNDING BONDS".

**Pledge Effected by General Bond Resolution** (General Bond Resolution, Sections 501 and 504)

The General Bond Resolution pledges for the payment of the principal and Redemption Price of, and interest on, the Bonds, and all obligations of the Authority under any Qualified Swap and certain Credit Facilities securing all or a portion of any Series of Bonds, in accordance with their terms and the provisions of the General Bond Resolution and such Qualified Swap and Credit Facilities, subject only to the provisions of the General Bond Resolution permitting the application thereof for the purposes and on the terms set forth in the General Bond Resolution: (i) the proceeds of the sale of the Bonds, (ii) all Pledged Revenues, and (iii) amounts on deposit in all Funds established by the General Bond Resolution, except for certain funds deposited in the Construction Fund and, under certain circumstances, the General Reserve Fund. The pledge and lien created by the General Bond Resolution may be modified by a Series Resolution or a supplemental resolution to provide for a pledge of amounts on deposit in particular funds or accounts to a particular Series of Bonds, the proceeds of which Series of Bonds funded such funds or accounts, superior to the pledge of such funds and accounts to other Bonds. The General Bond Resolution requires that the Authority shall pay out of moneys in the Revenue Fund, free and clear of any pledge created by the General Bond Resolution, all amounts required for reasonable and necessary Operating Expenses.

**Funds**

*Construction Fund:* The General Bond Resolution provides that the Authority shall establish within the Construction Fund a separate account for each Project the costs of which are to be paid in whole or in part out of the Construction Fund.

The Authority will pay into each separate account established for each Project the proceeds of Non-Refunding Bonds issued therefor, to the extent not required to make other required deposits. Amounts in each separate account established for each Project financed by Non-Refunding Bonds shall be applied to the purposes specified in the Series Resolution authorizing such Bonds. Certain insurance proceeds are also to be paid into the Construction Fund.

Moneys in the Construction Fund shall be invested by the Authority to the fullest extent practicable in Investment Securities maturing in such amounts and at such times as may be necessary to provide funds when needed to pay the Costs of Construction or other costs payable from such moneys.

To the extent that other moneys are not available therefor, amounts in the Construction Fund, except for moneys accepted from the United States Government or the State on the condition that such moneys not be encumbered by the Authority's debt service obligations, shall be applied to the payment of Debt Service.

Upon completion, substantial completion or abandonment of any Project and upon certification of an Authorized Officer of the Authority, any amount remaining in the separate account established therefor not required to complete payment of the Costs of Construction shall be deposited in the Debt Reserve Fund to the extent necessary to meet the Debt Reserve Requirement, and the balance shall be deposited into the Revenue Fund or the Maintenance Reserve Fund as directed by the Authority.

(General Bond Resolution, Section 503)

*Debt Service Fund:* The Trustee shall pay or request the Depository holding such Fund to pay from the Debt Service Fund the following amounts (a) to the respective Paying Agents, (i) the payment of interest and maturing principal amounts of the Bonds when due, (ii) payment of the redemption price and accrued interest on the redemption of Bonds, and (iii) payment of the purchase price of Bonds purchased through application of moneys accumulated in this fund by reason of the payment of any Sinking Fund Installment, and (b) to the Qualified Swap Provider, any amounts due and payable by the Authority during such month pursuant to a Qualified Swap under which the Authority is the fixed rate payor. All amounts held at any time in the Debt Service Fund shall be held on a parity basis for the ratable security and payment of Accrued Debt Service for the benefit of the Owners of all Bonds and of any Qualified Swap Provider in proportion to the amounts accrued and due to each of them.

(General Bond Resolution, Section 505)

*Debt Reserve Fund:* Amounts in the Debt Reserve Fund are to be applied to make up any deficiency in the Debt Service Fund. The General Bond Resolution provides that as a condition to the issuance of each Series of Bonds there shall be deposited in the Debt Reserve Fund the amount, if any, necessary so that the amount in such Fund equals the Debt Reserve Requirement calculated immediately after the issuance of such Series of Bonds.

Whenever the moneys and securities on deposit in the Debt Reserve Fund, together with the amount in the Debt Service Fund, are sufficient to pay in full all outstanding Bonds in accordance with their terms, together with any obligations owed by the Authority under any Credit Facility or any Qualified Swap secured on a parity with the Bonds, the funds on deposit in the Debt Reserve Fund are to be transferred to the Debt Service Fund.

In lieu of the required deposits into the Debt Reserve Fund, the Authority may deposit into the Debt Reserve Fund a surety bond or an insurance policy or a letter of credit in an amount equal to the difference between the Debt Reserve Requirement and the sums then on deposit in the Debt Reserve Fund, if any. The surety bond, insurance policy or letter of credit shall be payable on any interest payment date on which moneys will be required to be withdrawn from the Debt Reserve Fund and applied to the payment of Debt Service and such withdrawal cannot be withdrawn from the Debt Reserve Fund and applied to the payment of Debt Service and such withdrawal cannot be met by amounts on deposit in the Debt Reserve Fund or provided from any other Fund under the Resolution. The insurer providing such surety bond or insurance policy shall be an insurer whose municipal bond insurance policies insuring the payment, when due, of the principal of and interest on municipal bond issues results in such issues being rated in the highest rating category by both S&P and Moody's or any insurer who holds the highest policyholder rating accorded insurers by A.M. Best & Co. or any comparable service or successor service, provided that if the insurer is rated by A.M. Best & Co. but not by both Moody's and S&P, the Authority shall not agree to purchase the surety bond or insurance policy from such insurer unless the Authority gives at least fifteen (15) days' advance notice of its intention to do so to each of the Rating Agencies, which notice shall specify the identity of such insurer. The letter of credit issuer shall be a bank or trust company which is rated not lower than the second highest rating category (without regard to rating sub-categories) by both Moody's and S&P, and the letter of credit itself shall be rated in the highest category of both such ratings agencies. If a disbursement is made pursuant to a surety bond, an insurance policy or a letter of credit, the Authority shall be obligated either (i) to reinstate the maximum limits of such surety bond, insurance policy or letter of credit or (ii) to deposit into the Debt Reserve Fund, funds in the amount of the disbursement made under such surety bond, insurance policy or letter of credit, or a combination of such alternatives, as shall provide that the amount in the Debt Reserve Fund equals the Debt Reserve Requirement within a time period not longer than would be required to restore the Debt Reserve Fund by application of moneys in the Revenue Fund. The General Bond Resolution requires that if there is a reduction or suspension of any of the credit ratings of any insurer or letter of credit bank providing support for the Debt Reserve Fund, the Authority shall, within the time period provided in the General

Bond Resolution, provide a substitute surety bond, insurance policy or letter of credit meeting the requirements of the General Bond Resolution or shall deposit cash in the Debt Reserve Fund so that the amount in such Fund shall equal the Debt Reserve Requirement.

The Authority's payment obligation under any Qualified Swap shall be made from the Debt Service Fund if the Authority's obligation under the Qualified Swap remains a fixed rate obligation; otherwise, such payment shall be made from the General Reserve Fund. The Authority will not enter into any Qualified Swap unless it gives it at least fifteen (15) days' advance notice of its intention to do so to each of the Rating Agencies, which notice shall specify the identity of the Qualified Swap Provider.

(General Bond Resolution, Section 506)

*Maintenance Reserve Fund:* Amounts in the Maintenance Reserve Fund may be applied to the cost of major resurfacing, replacement or reconstruction of the Turnpike System and major or extraordinary repairs, renewals, or replacement of the Turnpike System, to the extent stated in a certificate of the Consulting Engineers filed with the Trustee and the Authority to be necessary (i) to restore or prevent physical damage to the Turnpike System or any part thereof, (ii) for the safe and efficient operation of the Turnpike System or (iii) to prevent loss of Pledged Revenues. Under certain conditions this fund is also to be used to meet certain deficiencies which may require transfers to be made to the Debt Service Fund.

(General Bond Resolution, Section 507)

*Special Project Reserve Fund:* Amounts in the Special Project Reserve Fund may be applied to the cost of one or more Projects or Special Projects. This fund may also be used in an amount up to 20% of the amount on deposit therein on the first day of any year to meet budgeted payments into the Maintenance Reserve Fund. Under certain circumstances, it is also to be used to meet deficiencies in the following Funds: the Debt Service Fund, the Debt Reserve Fund, the Charges Fund and the General Reserve Fund and excess amounts may be deposited in the Revenue Fund.

(General Bond Resolution, Section 509)

*General Reserve Fund:* Amounts in the General Reserve Fund are to be used to make up deficiencies in the Revenue Fund, the Debt Service Fund, the Debt Reserve Fund, the Charges Fund, the Maintenance Reserve Fund and the Special Project Reserve Fund. Amounts in this fund which are not required to remedy any such deficiency may be applied, subject to the terms of any pledge securing Subordinated Indebtedness. Variable Rate Debt, Commercial Paper or any Credit Facility supporting such obligations and any Exchange Agreement to: (i) the purchase or redemption of any Bonds and expenses in connection therewith; (ii) payment of the principal or redemption price of and interest on any Variable Rate Debt or Commercial Paper; (iii) payment of the principal or redemption price of and interest on any Subordinated Indebtedness; (iv) payments into the Construction Fund; (v) or the provision of reserves for these purposes; (vi) payments into the Revenue Fund; or (vii) any other corporate purpose of the Authority, including but not limited to any payments to be made to the State with respect to the development of State transportation projects.

(General Bond Resolution, Section 510)

#### **Satisfaction of Sinking Fund Installments** (General Bond Resolution, Section 505)

The Trustee, from amounts on deposit in the Debt Service Fund for Sinking Fund Installments, and the Authority (in lieu of depositing moneys in the Debt Service Fund) from any available funds, may purchase Bonds subject to redemption by operation of Sinking Fund Installments. Bonds so retired may

be credited against the Sinking Fund Installment at the then applicable sinking fund Redemption Price. If the principal amount of such Bonds so retired through application or in lieu of any Sinking Fund Installment shall exceed the amount of such Sinking Fund Installment, such excess shall be credited toward future Sinking Fund Installments in such order as the Authority shall determine, provided, however, that the Authority shall give notice to the Trustee of its election to credit any such excess to a Sinking Fund Installment at least 45 days prior to the due date thereof.

**Variable Rate Debt; Commercial Paper; Subordinated Indebtedness** (General Bond Resolution, Sections 511 and 512)

The Authority may, at any time or from time to time, issue Variable Rate Debt and Commercial Paper payable out of, and which may be secured by a pledge of, such amounts in the General Reserve Fund as may from time to time be available for the purpose of payment thereof; provided, however, that (a) such indebtedness shall be incurred only for any one or more of the purposes set forth above under the description of the General Reserve Fund and the proceeds of such Variable Rate Debt or Commercial Paper shall only be applied for such purpose or purposes, (b) the Authority shall covenant to provide sufficient moneys in the General Reserve Fund to pay the Variable Rate Debt and Commercial Paper when and as due, and (c) such indebtedness shall be, and shall be expressed to be, subordinate in all respects to the Bonds issued or to be issued under the General Bond Resolution and subordinate to all obligations payable from Funds other than the General Reserve Fund but senior in all respects to any pledge to secure Subordinated Indebtedness. No Variable Rate Debt or Commercial Paper may be issued unless the Authority has first determined by certified resolution that the issuance of such Variable Rate Debt or Commercial Paper, as applicable, will not impair the financial viability of the Authority or its operations.

The Authority may incur Subordinated Indebtedness for one or more of the purposes mentioned above under description of the General Reserve Fund. Such indebtedness may be payable out of and secured by a pledge of such amounts in the General Reserve Fund as may from time to time be available therefor. Such pledge must be subordinate to the pledge created by the General Bond Resolution.

Variable Rate Debt, Commercial Paper and Subordinated Indebtedness may be issued without regard to the level of Net Revenues of the Authority but all Debt Service must be paid before any further payment of principal or interest on Variable Rate Debt, Commercial Paper or Subordinated Indebted if any of the following events occur: (i) an event of default under the General Bond Resolution resulting from the non-payment of Debt Service (until cured); (ii) an event of default occurs under the General Bond Resolution with respect to Bonds resulting in acceleration of Principal Installments and interest on Bonds; (iii) the principal and interest on Variable Rate Debt, Commercial Paper or Subordinated Indebtedness is accelerated; (iv) the Authority becomes insolvent; or (v) early termination of a Qualified Swap. Any event of default with respect to Variable Rate Debt, Commercial Paper or Subordinated Indebtedness shall not in itself create the right to declare an event of default with respect to Bonds. No Subordinated Indebtedness may be issued unless the Authority has first determined by certified resolution that the issuance of such Subordinated Indebtedness will not impair the financial viability of the Authority and its operations.

In connection with the issuance of Variable Rate Debt, Commercial Paper or Subordinated Indebtedness, the Authority may enter into Exchange Agreements with respect to such obligations if the Authority determines that such Exchange Agreement will assist the Authority in more effectively managing its interest costs. The Authority's payment obligation under any such Exchange Agreement shall be made from the General Reserve Fund.

### **Investment of Certain Funds** (General Bond Resolution, Section 603)

The General Bond Resolution provides that certain funds held thereunder may, and in the case of the Debt Service Fund, the Debt Reserve Fund and the Charges Fund shall, be invested and reinvested to the fullest extent practicable in Investment Securities, as defined in the General Bond Resolution. The General Bond Resolution provides that such investments shall mature no later than such times as shall be necessary to provide moneys when needed for payments from such funds and, in the case of the following funds, not later than the period set forth below:

- the Revenue Fund, one year,
- the Debt Reserve Fund, five years,
- the Maintenance Reserve Fund, two years,
- the Special Project Reserve Fund, two years, and
- the General Reserve Fund, three years.

Net Investment income from investment of the Debt Service Fund shall be deposited in such Fund or Funds as the Authority directs from time to time provided that all deposits from the Revenue Fund required by the General Bond Resolution are made. Net investment income from investment of the Debt Reserve Fund shall be deposited in the same manner as other excess moneys in such fund as provided in the General Bond Resolution. Net investment income from all other Funds, except the Construction Fund, shall be paid into the Revenue Fund. Net investment income from the Construction Fund shall be held in the Construction Fund.

### **Valuation and Sale of Investments** (General Bond Resolution, Section 604)

Investment securities in any Fund created under the provisions of the General Bond Resolution shall be deemed at all times to be part of such Fund, and any profit realized from the liquidation of such investments shall be credited to such Fund and any loss resulting from liquidation of such investment shall be charged to such Fund.

A valuation of the Debt Reserve Fund shall be made as of December 1 in each year. The value of securities held under the General Bond Resolution shall mean the amortized value thereof, provided, however, that all Special Treasury Obligations shall be valued at par and those obligations which are redeemable at the option of the holder shall be valued at the price at which such obligations are then redeemable. The computations shall include accrued interest on securities paid as a part of the purchase price thereof and not collected. Amortized value, when used with respect to a security purchased at par, means the purchase price of such security and when used with respect to a security purchased at a premium above or discount below par, means as of any subsequent date of valuation, the value obtained by dividing the total premium or discount by the number of days remaining to maturity on any such security at the time of such security at the time of such purchase and by multiplying the amount as calculated by the number of days having passed since the date of purchase and (i) in the case of a security purchased at a premium, by deducting the product thus obtained from the purchase price, and (ii) in the case of a security purchase at a discount, by adding the product thus obtained to the purchase price.

### **Annual Budget** (General Bond Resolution, Section 710)

The Authority covenants that, not less than 40 days before the beginning of any calendar year, the Authority shall prepare and file with the Trustee a preliminary budget of Operating Expenses and reserves therefor for the ensuing year. Each such budget and each Annual Budget shall include, in addition to appropriations for all anticipated Operating Expenses and reserves therefor, provision for Maintenance Reserve Payments and for Special Project Reserve Payments. Such preliminary budget and any Annual Budget may set forth such additional material as the Authority may determine and shall contain a

certificate of the Consulting Engineers approving such preliminary budget or such Annual Budget, as the case may be.

On or before the 15th day of each calendar year, the Authority shall finally adopt the Annual Budget for such year. The Authority may at any time adopt an amended Annual Budget for the remainder of the then current calendar year. Copies of the Annual Budget and of any amended Annual Budget shall be promptly filed with the Trustee, for inspection by Bondholders.

The Special Project Reserve Payments included in the Annual Budget shall be in an amount equal to the difference between (i) the balance on deposit in the Special Project Reserve Fund on the date of adoption of the Annual Budget and (ii) the Special Reserve Requirement.

If, in the Annual Budget for any calendar year or in any amended Annual Budget for any calendar year, the total Operating Expenses stated exceed 110% of the total Operating Expenses stated in the preliminary budget for such year as filed with the Trustee, such Annual Budget or amended Annual Budget shall not be effective or supersede any prior budget until the Authority shall have prepared a report in reasonable detail as to the reasonableness and necessity thereof, file copies of such report with the Trustee, and thereafter held a public hearing thereon at which any Bondholder may appear in person or by agent or attorney and present any objections he may have.

If the Owners of 25% in aggregate principal amount of the Bonds then Outstanding shall so request in writing at the time of the public hearing mentioned in the immediately preceding paragraph, the Authority shall obtain a report by the Consulting Engineers as to the reasonableness and necessity of such budget, and the Annual Budget for such year shall not be adopted until ten days after a copy of such report shall have been filed with the Trustee.

**Toll Covenants** (General Bond Resolution, Sections 713 and 714)

The Authority covenants in the General Bond Resolution that:

(i) It will at all times fix, charge and collect such tolls for the use of the Turnpike System as are required in order that in each calendar year Net Revenues shall at least equal the Net Revenue Requirement for such year.

(ii) On or before December 1 in each year, the Authority will review its financial condition in order to estimate whether the Net Revenues for such year and for the next succeeding year will be sufficient to comply with the toll covenant described in paragraph (i) above. Such review shall take into consideration the completion of any uncompleted Projects and the issuance of future series of Bonds, if necessary, to finance the completion of such Projects. If the Authority determines that the Pledged Revenues may not be so sufficient, it will cause its Traffic Consultants to make a study and to recommend a schedule of tolls which will provide sufficient Pledged Revenues in the following year to comply with the toll covenant described in paragraph (i) above and will cause additional Pledged Revenues to be collected in the following and later years sufficient to eliminate any deficiency at the earliest practicable time. The Authority will place the recommended schedule of tolls in effect no later than the next April 1.

Failure to comply with the toll covenant described in paragraph (i) above in any calendar year will not constitute an event of default under the General Bond Resolution if either (a) the Authority complies with the covenant described in paragraph (ii) above or (b) the Authority's Traffic Consultants are of the opinion that a toll schedule which will comply with the toll covenant described in paragraph (i) above is impracticable at that time, and the Authority therefor cannot comply with the covenant described in paragraph (ii) above, and the Authority establishes a schedule of tolls which is recommended by its



traffic consultants to comply as nearly as practicable with the tolls covenant described in paragraph (i) above.

The Authority will not reduce any toll (except by way of certain adjustments or reclassifications of toll rates as referred to below) unless the following conditions and tests shall be met:

(1) There shall have been delivered to the Trustee a certificate of an Authorized Officer of the Authority to the effect that the cumulative reductions in the immediately preceding 12 months, including the proposed and all other reductions as if they had been in effect for such period, would not reduce Net Revenues for such period by more than one percent (1%), with schedules of traffic and toll collections demonstrating such conclusion and that, taking into account such reductions, the Authority would have met the Net Revenue Requirements for such period; or

(2) (i) the Net Revenues for the preceding calendar year shall have equaled at least the Net Revenue Requirement for such preceding calendar year;

(ii) the estimated Net Revenues for the then current and each future calendar year to and including the latest maturity of the Bonds (giving effect to the proposed toll reduction but not to any additional traffic which might result therefrom) shall equal at least the Net Revenue Requirement (giving effect to future Series of Bonds estimated to be required to complete uncompleted Additional Projects) for each such year;

(iii) the Authority is not in default in the performance of any of the provisions of the Bonds or the General Bond Resolution or of any Qualified Swap; and

(iv) the amount in the Debt Reserve Fund is at least equal to the Debt Reserve Requirement.

For purposes of the test referred to in paragraph (2)(ii) above, the estimated Net Revenues are to be based on estimates by the Authority's Traffic Consultants of Turnpike Revenues and estimates by the Authority's Consulting Engineers of Operating Expenses, Maintenance Reserve Payments and Special Project Reserve Payments in each case giving effect to the completion of any uncompleted Turnpike Project. The estimates of the Traffic Consultants are to reflect the effect of the construction, improvement or acquisition of any highway or other facility which any Federal, State or other agency is then projecting or planning and which, in their opinion, may be materially competitive with any part of the Turnpike System.

The Authority may increase toll rates and make any other adjustment or reclassification of toll rates or establish special toll rates provided that such action (i) is concurred in by the Traffic Engineers and affects tolls accounting for less than 10% of the Turnpike Revenues, as evidenced by a certificate filed with the Trustee, or (ii) is subject to a certification of the Traffic Engineer, filed with the Trustee, that the changed tolls will not result in a reduction in Net Revenues by reason of collectibility, reduction in traffic or costs of operation or any other reason.

The Authority shall not grant free passage for the use of any portion of the Turnpike System subject to tolls, except (i) to members, officers and employees of the Authority actually in the performance of their duties or in the course of traveling to or from the place of the performance of such duties, to members of the New Jersey State Police Force, to members of any fire department or any local police department in the performance of their duties and to any public or private ambulance or rescue squad service for the emergency passage of its ambulance or rescue vehicles, (ii) by means of passes or otherwise, to such vehicles owned by individuals, corporations or partnerships with which the Authority

has entered into leases, concession contracts or service and maintenance contracts, as in its discretion may be deemed necessary for the operation of concessions and facilities upon the Turnpike System, for the maintenance of such concessions or facilities and for the prompt and economical furnishing of emergency services to patrons of the Turnpike System or any concession or facility thereof, (iii) commuter buses (as defined from time to time by the Authority's regulations), but only if and to the extent that the Authority first determine by certified resolution that the exemption of such commuter buses from tolls will not impair the financial viability of the Authority and its operations, and (iv) to others by passes, provided that there shall not be more than fifty such passes outstanding at any one time.

#### **Insurance** (General Bond Resolution, Section 715)

The Authority covenants that it will at all times maintain, to the extent reasonable obtainable, the, following kinds and the following amounts of insurance, or otherwise make provision for the payment of claims against the Authority, with such variations as shall reasonable be required to conform to applicable standard or customary insurance practice and subject to such exceptions and permissible deductions as are ordinarily required, all to be determined by the Authority after consultation with its insurance consultants:

- (1) Property insurance on all real and personal property, including bridges and viaducts owned by the Authority in sufficient amounts to cover direct physical loss or damage from causes normally insured against;
- (2) Liability insurance to cover injury to persons or damage to property for claims arising out of the construction, maintenance, reconstruction or operation of the roadway and other facilities owned or operated by the Authority;
- (3) Business interruption insurance covering loss of Pledged Revenues due to any interruption in the use of the roadway or other facilities of the Authority which would cause a loss of revenue to the Authority;
- (4) Any coverage required to be maintained by any State or federal law, including, but not limited to, workers' compensation coverage, and motor vehicle liability coverage;
- (5) Any coverage which is customarily deemed appropriate to protect the interests of the Authority during any construction or reconstruction of any portion of the Turnpike System; and
- (6) Any additional insurance which may be necessary or advisable to protect the interests of the Authority.

#### **Reports** (General Bond Resolution, Sections 717 and 718)

The Authority covenants to file with the Trustee, and to mail to those Bondholders who file with it their names and addresses for such purpose, periodic reports on the operations of the Turnpike System, including statements of traffic, Pledged Revenues and Net Revenues. Quarterly reports are to cover the preceding quarter and 12-month period, with comparative data for corresponding periods a year earlier. In addition, semi-annual reports are to cover a Six-month period and contain, among other things, a statement of transactions in and investments of funds established by the General Bond Resolution, and annual reports are to contain statements of traffic, Pledged Revenues, Net Revenues, fund transactions and investments audited by an independent public accountant or accounting firm of recognized national standing approved by the Trustee. The Authority will cause an annual audit to be made of its books and accounts relating to the Turnpike System for the preceding calendar year.

With respect to each Project under construction, the Authority covenants to file and to mail (as provided above) quarterly construction progress reports prepared by its consulting engineers, with comparisons between actual elapsed times and costs and previously estimated times and costs.

**Arbitrage** (General Bond Resolution, Section 720)

The Authority covenants that it will not at any time take any action or fail to take any action which would cause any Tax Exempt Obligation to be an arbitrage bond within the meaning of the Code or permit any of the proceeds of Tax Exempt Obligations or any other funds of the Authority to be used directly or indirectly to acquire any securities or obligations the acquisition of which would cause any Tax Exempt Obligation to be an arbitrage bond within the meaning of the Code.

**Events of Default and Remedies** (General Bond Resolution, Sections 801 and 804)

The General Bond Resolution defines events of default which include, among others, (i) defaults (a) in the due and punctual payment of the principal or redemption price of any Bond when and as the same shall become due and payable or the payment of the purchase price of a tendered Bond on any date on which Bonds are required to be purchased pursuant to a Series Resolution, (b) in the due and punctual payment of any installment of interest on any Bond, (c) in the compliance with the toll covenant of the General Bond Resolution, except as stated under "Toll Covenants" above, (d) the Authority undertaking the filing of a petition seeking a composition of indebtedness under the federal bankruptcy laws, or under any other applicable law or statute of the United States of America or of the State of New Jersey, (e) in the performance of any other covenant or condition in the General Bond Resolution or in the Bonds if such default shall continue for 60 days after notice by the Owners of not less than 10% in principal amount of Bonds outstanding, and (f) failure by the Authority to vacate the appointment by a court of a receiver or receivers of the Turnpike System or any part thereof, or of the tolls and other revenues therefrom within 90 days after the entry thereof, and (ii) the Trustee's receipt from the Standby Purchaser of notice of the Occurrence of an "event of default" under the Standby Agreement.

If an event of default shall happen and shall have not been remedied, the Trustee may, and upon written request of the Owners of 10% in principal amount of the Bonds outstanding shall, proceed to enforce by such proceedings at law or in equity as it deems most effectual, the rights of the Owners of Bonds issued under the General Bond Resolution, and either the Trustee or the Owners of 25% in principal amount of the Bonds then outstanding may declare the principal of and interest on all the Bonds then outstanding due and payable immediately.

No Bondholder shall have any right to institute any suit or proceeding for the execution of any trust under the General Bond Resolution, or for the enforcement of any provision of the General Bond Resolution, unless such Bondholder shall have given previously the Trustee written notice of the event of default on account of which such suit or proceeding is to be instituted, and unless the holders of at least 25% in principal amount of the Bonds then outstanding shall have filed a written request to the Trustee and shall have afforded the Trustee a reasonable opportunity to exercise its powers or to institute such suit or proceeding, and unless there shall have been offered to the Trustee adequate security and indemnity against its costs, expenses and liability to be incurred and the Trustee shall have refused or failed to comply with such request within 60 days after receipt of such notice, request and offer of indemnity. Nothing in the General Bond Resolution or the Bonds affects or impairs the Authority's obligation to pay the Bonds and the interest thereon when due or the right of any Bondholder to enforce such payment.

**Resignation and Removal of Trustee** (General Bond Resolution, Sections 908, 909 and 910)

The Trustee may at any time resign and be discharged of its duties and obligations under the General Bond Resolution by giving the Authority not less than 60 days written notice and publishing

notice of its resignation in certain newspapers. The Trustee may also be removed at any time by the Owners of a majority in principal amount of the Bonds then Outstanding by a signed and acknowledged instrument. The resignation, discharge or removal of the Trustee shall not become effective until a successor Trustee has assumed the duties and obligations of the Trustee under the General Bond Resolution.

In the case of the resignation or removal of the Trustee, or if the Trustee is incapable of acting or is otherwise relieved of its duties, the Owners of a majority in principal amount of the Bonds then Outstanding may appoint a successor. Any successor Trustee shall be a bank or trust company or national banking association, doing business and having its principal office in the City and State of New Jersey and having capital stock and surplus aggregating at least \$50,000,000, if there be such a bank or trust company or national banking association willing and able to accept the office on reasonable and customary terms and authorized by law to perform all the duties imposed upon it by the General Bond Resolution.

#### **Co-Trustee (General Bond Resolution, Section 917)**

At any time so long as no event of default has occurred and is continuing under the General Bond Resolution, the Authority, by Supplemental Resolution, may, solely in its discretion, appoint an additional institution as a separate or Co-Trustee meeting the requirements of a successor trustee under the General Bond Resolution, in which event each and every remedy, power, right, claim, demand, cause of action, immunity, estate, title interest and lien expressed or intended by the General Bond Resolution to be exercised by or vested in or conveyed to the Trustee with respect thereto shall be exercisable by and vest in such separate or Co-Trustee, but only to the extent necessary to enable such separate or Co-Trustee to exercise such powers, rights and remedies, and every covenant and obligation necessary to the exercise thereof by such separate or Co-Trustee shall run to and be enforceable by either of them. In case any separate or Co-Trustee, or a successor, shall become incapable of acting, resign or be removed, all the estates, properties, rights, powers, trusts, duties and obligations of such separate or Co-Trustee, so far as permitted by law, shall vest in and be exercised by the Trustee until the appointment, if any, by the Authority of a successor to such separate or Co-Trustee. Any Co-Trustee appointed by the Authority pursuant to the General Bond Resolution may resign in accordance with the General Bond Resolution or be removed in accordance with the General Bond Resolution, in which case all powers, rights and remedies vested in the Co-Trustee shall again vest in the Trustee as if no such appointment of a Co-Trustee had been made. No successor Co-Trustee shall be required (but shall be permitted subject to the requirements of the General Bond Resolution) so long as the Trustee continues to act under the General Bond Resolution.

In connection with the appointment of any Co-Trustee pursuant to the General Bond Resolution the Authority, the Trustee and the Co-Trustee shall execute a separate Agreement in form acceptable to the parties thereto defining the respective duties of such Co-Trustee and the Trustee under the General Bond Resolution.

#### **Series Resolutions (General Bond Resolution, Section 1001)**

The Authority may adopt at any time and from time to time Series Resolutions to authorize the issue of Series of Bonds under the General Bond Resolution. A Series Resolution may also designate Variable Rate Debt, Commercial Paper and Subordinated Indebtedness as Bonds if at the time of such designation specified requirements of the General Bond Resolution are met with respect to such indebtedness. A Series Resolution shall be fully effective in accordance with its terms upon its adoption by the Authority in order to specify, determine or authorize any matters and things concerning any such Bonds or the proceeds thereof which are not contrary to or inconsistent with the General Bond

Resolution. Upon the adoption of a Series Resolution, the Authority shall file with the Trustee a copy thereof, certified by an Authorized Officer of the Authority.

**Amendments and Supplements** (General Bond Resolution, Sections 1101 and 1102)

The Authority may, without Bondholder consent, adopt at any time or from time to time a Supplemental Resolution supplementing and amending the General Bond Resolution or any Series Resolution or any Supplemental Resolution for one or more of the following purposes:

- (1) To close the General Bond Resolution against, or impose additional limitations or restrictions on, the issuance of Bonds, or of other notes, bonds, obligations or evidences of indebtedness;
- (2) To impose additional covenants or agreements to be observed by the Authority which are not contrary to or inconsistent with the General Bond Resolution;
- (3) To impose other limitations or restrictions upon the Authority;
- (4) To cure any ambiguity, omission or defect in the General Bond Resolution, any Series Resolution or Supplemental Resolution in such manner as shall not be inconsistent with the overall intent of the General Bond Resolution and shall not impair or adversely affect the security for any Bonds issued under the General Bond Resolution;
- (5) To revise the timing for the performance of certain of the Authority's covenants contained in the General Bond Resolution in the event that the Authority's fiscal year is ever changed from a calendar year to a different 12 month period, provided that such revisions shall require the performance of such covenants within the same relative time periods of the new fiscal year as is required currently in a calendar year;
- (6) To surrender any right, power or privilege reserved to or conferred upon the Authority by the General Bond Resolution;
- (7) To confirm, as further assurance, any pledge of or lien upon the Pledged Revenues or any other moneys, securities or funds;
- (8) To effect any other change necessary to maintain the excludability of the interest on Tax Exempt Obligations from gross income for federal income tax purposes;
- (9) To appoint a Co-Trustee in the discretion of the Authority pursuant to the General Bond Resolution; and
- (10) To effect any other change in the General Bond Resolution, any Series Resolution or Supplemental Resolution that does not materially adversely affect the Owners of the Bonds.

The Authority also may adopt modifications or amendments to the General Bond Resolution, any Series Resolution or Supplemental Resolution in addition to the amendments described above, (i) by adoption of a Supplemental Resolution with the written consent of the Holders of at least 51% in principal amount of the Bonds Outstanding at the time such consent is given, or (ii) in case less than all of the several Series of Bonds then Outstanding are affected by the modification or amendment, of the Holders of at least 51% in principal amount of the Bonds of each Series so affected and Outstanding at the time such consent is given; provided, however, that if such modification or amendment will, by its terms, not

take effect so long as any Bonds of any specified like Series and maturity remain Outstanding, the consent of the Owners of such Bonds shall not be required and such Bonds shall not be deemed to be Outstanding for the purpose of any calculation of Outstanding Bonds. If permitted by an applicable Series Resolution, a Credit Issuer for a Credit Facility or Substitute Credit Facility securing a Series of Bonds shall have the right to consent to amendments on behalf of the Owners of the Bonds of such Series. No such modification or amendment shall permit a change in the terms of redemption or maturity of the principal of any Outstanding Bonds, or of any installment of interest thereon or a reduction in the principal amount or the Redemption Price thereof or in the rate of interest thereon without the consent of the Holder of such Bond, or shall reduce the percentages or otherwise affect the classes of Bonds the consent of the Holders of which is required to effect any such modification or amendment, or shall change or modify any of the rights or obligations of any Fiduciary without its written assent thereto.

Each such Supplemental Resolution shall be accompanied, when filed with the Trustee, by (a) a Counsel's Opinion to the effect that such resolution has been duly and lawfully adopted by the Authority in accordance with the provisions of the General Bond Resolution, is authorized or permitted by the General Bond Resolution and, when effective, will be valid and binding upon the Authority, the Bondholders and the Trustee, and (b) if such Supplemental Resolution shall change or modify any of the rights or obligations of any Qualified Swap Provider, any Standby Purchaser, any Tender Agent or any Remarketing Agent, the written consent of such person to such Supplemental Resolution (which consent shall not be unreasonably withheld).

#### **Defeasance (General Bond Resolution, Section 1201)**

If the principal or redemption price, if applicable, of and interest due and to become due on all Bonds is paid to the Bondholders and all obligations of the Authority due or to become due under each Qualified Swap and Standby Agreement then in effect or thereupon terminated is paid in accordance with the terms thereof, then the pledge of Pledged Revenues and other moneys and all covenants, agreements and other obligations of the Authority to the Bondholders, each Qualified Swap Provider and each Standby Purchaser are discharged and satisfied. All outstanding Bonds prior to the maturity or redemption date thereof shall be deemed to have been paid and shall cease to be entitled to any lien, benefit or security under the General Bond Resolution and all covenants, agreements and obligations of the Authority to the Owners thereof shall be discharged and satisfied, if the following conditions are met: (i) (a) the interest rates in effect with respect to Bonds that are to be deemed paid with the meaning of the defeasance provisions of the General Bond Resolution cannot be reset prior to the date on which such Bonds are to be redeemed or their maturity date, and (b) such Bonds are not subject to tender for purchase prior to the date on which such Bonds are to be redeemed or their maturity date, (ii) in the case of the Bonds to be redeemed, the Authority shall have given to the Trustee instructions to pay or redeem all of said Bonds in accordance with the applicable Sinking Fund Installments and to publish the notice of redemption thereof, (iii) there shall have been deposited with the Trustee in trust either moneys in an amount which shall be sufficient, or Federal Securities, the principal of and interest on which, when due, will provide moneys which, together with any moneys also deposited, shall be sufficient to pay when due the principal or redemption price, if applicable, and interest due or to become due on such Bonds, and (iv) in the event such Bonds are not to be redeemed within the next succeeding 60 days, the Authority shall have given the Trustee irrevocable instructions to publish, as soon as practicable, a notice to the Owners of such Bonds that the above deposit has been made with the Trustee and that such Bonds are deemed to be paid and stating the maturity or redemption dates upon which moneys are to be available to pay the principal or redemption price, if applicable, of such Bonds.

No payments of principal of any of the Federal Securities deposited with the Trustee or interest thereon shall be withdrawn or used for any purpose other than the payment of such principal or Redemption Price of, or interest on, the Bonds deemed to be paid unless after such withdrawal the amount

held by the Trustee and interest to accrue on Federal Securities so held shall be sufficient to provide fully for the payment of the principal or Redemption Price of and interest on the balance of such Bonds.

Amounts deposited with the Trustee for the payment of Principal Installments of and interest on any Bonds deemed to be paid, if so directed by the Authority, shall be applied by the Trustee to the purchase of such Bonds in accordance with the General Bond Resolution. Bonds for which a redemption date has been established may be purchased on or prior to the 45th day preceding the redemption date. The principal amount of Bonds to be redeemed shall be reduced by the principal amount of Bonds so purchased. Bonds which mature on a single future date may be purchased at any time prior to the maturity date. All such purchases shall be made at prices not exceeding the applicable principal amount or redemption price established pursuant to the General Bond Resolution, plus accrued interest, and such purchases shall be made in such manner as the Trustee shall determine. No purchase shall be made by the Trustee if such purchase would result in the Trustee holding less than the moneys and Federal Securities required to be held for the payment of all other Bonds deemed to be paid.

The Authority may purchase with any available funds any Bonds determined to be paid in accordance with the General Bond Resolution. Bonds for which a redemption date has been established may be purchased by the Authority on or prior to the 45th day preceding the redemption date. On or prior to the 45th day preceding the redemption date the Authority shall give notice to the Trustee of its intention to surrender such Bonds on the redemption date. The Trustee shall proceed to call for redemption the remainder of the Bonds due on the redemption date and shall pay to the Authority on the redemption date the redemption price of and interest on Bonds purchased by the Authority upon surrender of such Bonds to the Trustee. Bonds which mature on a single future date may be purchased at any time prior to the maturity date. The Trustee shall pay to the Authority the principal amount of and interest on such Bonds upon surrender of such Bonds on the maturity date.

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## **APPENDIX E**

### **FORM OF BOND COUNSEL OPINION**

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*Upon the issuance of the Series 2017 A Bonds, Wilentz, Goldman & Spitzer, P.A., Woodbridge, New Jersey, Bond Counsel, anticipates rendering its final opinion in substantially the following form:*

April 11, 2017

New Jersey Turnpike Authority  
1 Turnpike Plaza  
P.O. Box 5042  
Woodbridge, NJ 07095-5042

Ladies and Gentlemen:

We have examined a record of proceedings relating to the issuance by the New Jersey Turnpike Authority (the “Authority”) of \$600,000,000 aggregate principal amount of its Turnpike Revenue Bonds, Series 2017 A (the “Series 2017 A Bonds”). The Authority is a public body corporate and politic created under and by virtue of the New Jersey Turnpike Authority Act of 1948, constituting Chapter 454 of the Laws of New Jersey of 1948, as amended and supplemented (the “Act”).

The Series 2017 A Bonds are issued under and pursuant to the provisions of the Act and a resolution of the Authority adopted on August 20, 1991 and entitled, “Turnpike Revenue Bond Resolution”, as amended and restated on September 26, 1991, and as further amended and restated on November 22, 1991, as the same has been further amended, restated and supplemented from time to time (collectively, the “General Bond Resolution”), including as supplemented by the Series 2016 Turnpike Revenue Bond Resolution, adopted by the Authority on September 27, 2016 (the “Series 2016 Resolution”), and by a Certificate of Determination relating to the Series 2017 A Bonds executed by the Executive Director of the Authority dated the date hereof (the “Certificate of Determination”, and together with the General Bond Resolution and the Series 2016 Resolution, the “Resolution”). Capitalized terms used but not otherwise defined herein shall have the meaning ascribed thereto in the Resolution.

The Series 2017 A Bonds are dated the date hereof, mature on the dates and in the principal amounts, bear interest from their date at the respective rates and payable on such dates and contain such other provisions, all as set forth in the Series 2016 Resolution and the Certificate of Determination. The Series 2017 A Bonds are subject to redemption prior to maturity on the terms and conditions set forth in the Resolution.

The Series 2017 A Bonds are being issued by the Authority to (i) pay the Costs of Construction of various Projects which are part of the Authority’s ongoing capital improvement

program for the Turnpike System, (ii) make a deposit into the Debt Reserve Fund, and (iii) pay the costs of issuance of the Series 2017 A Bonds.

Under the terms of the Resolution, the Authority may hereafter authorize and issue other additional Bonds under the Resolution for the purposes and on the terms and conditions set forth in the Resolution. Any such additional Bonds, when issued, will be entitled, equally and ratably with the Series 2017 A Bonds, all other Bonds heretofore or hereafter issued and Outstanding under the Resolution and certain other obligations described in the Resolution, to the benefit, protection and security of the provisions, covenants and agreements of the Resolution, including the pledge of Pledged Revenues and the amounts on deposit in all Funds established by the Resolution, except as otherwise set forth in the Resolution.

In rendering the opinions set forth below, we have examined such matters of law and documents, certificates, records and other instruments as we deemed necessary or appropriate to enable us to express the opinions set forth below, including, without limitation, the Act, original counterparts or certified copies of the Resolution and the other documents, certifications, instruments, opinions and records filed with the Trustee in connection with the issuance of the Series 2017 A Bonds. In rendering the opinions set forth below, we have assumed and relied upon the genuineness of all signatures, the authenticity of all documents submitted to us as originals and the conformity to the original documents of all documents submitted to us as copies. As to any facts material to our opinions we have, when such facts were not independently established, relied upon the truthfulness, completeness and accuracy of the aforesaid instruments, certificates, opinions, records and other documents without any independent investigation thereof.

Based on the foregoing and subject to the limitations, qualifications and exceptions set forth below, we are of the opinion that:

1. The Authority has been duly created and is validly existing as a public body corporate and politic under the provisions of the Act, with power to adopt the Resolution and to issue the Series 2017 A Bonds.

2. The Resolution has been duly and lawfully adopted by the Authority, is in full force and effect, is valid and binding upon the Authority and is enforceable in accordance with its terms, and no other authorization for the Resolution is required.

3. The Series 2017 A Bonds have been duly authorized and issued by the Authority in accordance with the Act and the provisions of the Resolution, are valid and binding obligations of the Authority enforceable in accordance with their terms and the terms of the Resolution, and are entitled to the benefit, protection and security of the Resolution and the Act.

4. The Resolution creates the valid pledge that it purports to create of the proceeds of the sale of the Bonds, the Pledged Revenues and the amounts on deposit in all Funds established by the Resolution (except for moneys provided by governmental authorities whose availability is conditioned on such amounts not being subject to the pledge of the Resolution), subject only to the provisions of the Resolution permitting the application thereof for the purposes and on the terms set forth in the Resolution.

5. The Series 2017 A Bonds constitute additional Bonds under the Resolution, and are equally and ratably entitled to the benefits, protection and security of the Resolution along with all other Bonds heretofore issued and Outstanding under the Resolution and certain other obligations described in the Resolution.

6. The Internal Revenue Code of 1986, as amended (the “Code”) establishes certain requirements which must be met at the time of, and on a continuing basis subsequent to, the issuance and delivery of the Series 2017 A Bonds in order for interest on the Series 2017 A Bonds to be and remain excluded from gross income for Federal income tax purposes under Section 103 of the Code. Noncompliance with such requirements could cause interest on the Series 2017 A Bonds to be included in gross income for Federal income tax purposes retroactive to the date of issuance and delivery of the Series 2017 A Bonds. The Authority has represented in its tax certificate relating to the Series 2017 A Bonds that it expects and intends to comply and will comply, to the extent permitted by law, with such requirements.

Under existing statutes, regulations, rulings and court decisions and assuming continuing compliance by the Authority with the requirements of the Code described in the preceding paragraph, interest on the Series 2017 A Bonds is not includable in gross income for Federal income tax purposes pursuant to Section 103 of the Code and is not treated as a preference item under Section 57 of the Code for purposes of computing the Federal alternative minimum tax imposed on individuals and corporations.

We are also of the opinion that the difference between the stated principal amount of the Series 2017 A Bonds maturing on January 1, 2035 and bearing interest at the rate of 3.50% per annum and maturing on January 1, 2036 (collectively, the “Discount Series 2017 A Bonds”), and their initial offering price to the public (excluding bond houses, brokers or similar persons or organizations acting in the capacity of underwriters or wholesalers), at which price a substantial amount of the Discount Series 2017 A Bonds was sold, constitutes original issue discount which is excluded from gross income for Federal income tax purposes to the same extent as interest on the Discount Series 2017 A Bonds. Further, such original issue discount accrues actuarially on a constant interest rate basis over the term of each Discount Series 2017 A Bond and the basis of each Discount Series 2017 A Bond acquired at such initial offering price by an initial purchaser thereof will be increased by the amount of such accrued original issue discount.

Under Section 171(a)(2) of the Code, no deduction is allowed for the amortizable bond premium (determined in accordance with Section 171 (b) of the Code) on the Series 2017 A Bonds that are initially offered and sold at a premium. Under Section 1016(a)(5) of the Code, however, an adjustment must be made to the purchaser's basis in such Series 2017 A Bonds to the extent of any amortizable bond premium that is disallowable as a deduction under Section 171(a)(2) of the Code.

7. Under existing laws of the State of New Jersey, the interest on the Series 2017 A Bonds and any gain on the sale of the Series 2017 A Bonds are not includable in gross income under the New Jersey Gross Income Tax Act.

The foregoing opinions in paragraphs 2 and 3 above are qualified to the extent that the enforceability of the Resolution and the Series 2017 A Bonds may be limited by applicable bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium or other similar laws now

or hereafter enacted by any state or by the Federal government affecting the enforcement of creditors' rights generally and general principles of equity (regardless of whether enforcement is sought in a proceeding in equity or at law) and the valid exercise of the sovereign police powers of the State of New Jersey and the constitutional power of the United States of America.

Except as stated above, we express no opinion as to any Federal, state or local tax consequences of the ownership or disposition of the Series 2017 A Bonds.

We express no opinion as to the effect, if any, on the tax status of interest paid or to be paid on the Series 2017 A Bonds as a result of any action hereafter taken or not taken in reliance upon an opinion of other counsel.

Attention is called to the fact that we have not been requested to examine and have not examined any documents or information relating to the Authority other than the certified copies of the proceedings and proofs referred to hereinabove, and no opinion is expressed as to any financial or other information, or the adequacy thereof, that has been or may be supplied to any purchaser of the Series 2017 A Bonds. We express no opinion herein as to the accuracy, adequacy or sufficiency of the Official Statement of the Authority pertaining to the offering of the Series 2017 A Bonds.

The opinions expressed herein are limited to and based upon the laws and judicial decisions of the State of New Jersey and the Federal laws and judicial decisions of the United States of America as of the date hereof, and are subject to any amendment, repeal or other modification of the applicable laws or judicial decisions that served as the basis for our opinions or to any laws or judicial decisions hereafter enacted or rendered.

Our engagement by the Authority with respect to the opinions expressed herein does not require, and shall not be construed to constitute, a continuing obligation on our part to notify or otherwise inform the addressee hereof of the amendment, repeal or other modification of the applicable laws or judicial decisions that served as the basis for this opinion letter or of any laws or judicial decisions hereafter enacted or rendered that impact on this opinion letter.

Very truly yours,

WILENTZ, GOLDMAN & SPITZER, P.A.

## **APPENDIX F**

### **FORM OF CONTINUING DISCLOSURE AGREEMENT**

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**CONTINUING DISCLOSURE AGREEMENT**

**Between**

**NEW JERSEY TURNPIKE AUTHORITY,**

**THE BANK OF NEW YORK MELLON, Co-Trustee**

**and**

**U.S. BANK NATIONAL ASSOCIATION, Co-Trustee**

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**Relating to**

**NEW JERSEY TURNPIKE AUTHORITY**

**\$600,000,000**

**Turnpike Revenue Bonds,  
Series 2017 A**

**Dated: April 11, 2017**

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## CONTINUING DISCLOSURE AGREEMENT

This **CONTINUING DISCLOSURE AGREEMENT** (the “Disclosure Agreement”) is made this 11th day of April, 2017 between the NEW JERSEY TURNPIKE AUTHORITY (the “Authority”), THE BANK OF NEW YORK MELLON and U.S. BANK NATIONAL ASSOCIATION, in their capacity as co-trustees (the “Co-Trustees”) under the Authority’s Turnpike Revenue Bond Resolution, adopted on August 20, 1991, as amended, restated and supplemented (the “Resolution”), including as supplemented by the Series 2016 Turnpike Revenue Bond Resolution adopted by the Authority on September 27, 2016. This Disclosure Agreement is entered into in connection with the issuance and sale by the Authority of its Turnpike Revenue Bonds, Series 2017 A, and any additional bonds hereinafter issued under the Resolution and designated pursuant to a supplemental schedule as bonds to be covered hereunder (collectively, the “Bonds”).

1. **Purpose of this Disclosure Agreement.** This Disclosure Agreement is being executed and delivered for the benefit of the holders and beneficial owners of the Bonds (collectively, the “Bondholders”) and in compliance with Rule 15c2-12(b)(5) of the Securities and Exchange Commission, as it may be amended from time to time, including administrative or judicial interpretations thereof, as it applies to the Bonds.

2. **Definitions.** In addition to the definitions set forth in the Resolution and hereinabove, which apply to any capitalized term used in this Disclosure Agreement unless otherwise defined in this Section 2, the following capitalized terms shall have the following meanings:

“*Annual Report*” shall mean the Authority’s Annual Report provided pursuant to, and as described in, Sections 3 and 4 of this Disclosure Agreement.

“*Continuing Disclosure Information*” shall mean, collectively, (i) each Annual Report, (ii) any notice required to be filed by the Authority with the MSRB pursuant to Section 3(c) of this Disclosure Agreement, and (iii) any notice of a Listed Event required to be filed by the Authority with the MSRB pursuant to Section 5(b) of this Disclosure Agreement.

“*Listed Events*” shall mean any of the events listed in Section 5(a) of this Disclosure Agreement.

“*MSRB*” shall mean the Municipal Securities Rulemaking Board.

“*Opinion of Counsel*” shall mean a written opinion of counsel expert in federal securities law acceptable to the Authority.

“*Rule*” shall mean Rule 15c2-12 adopted by the SEC under the Securities Exchange Act of 1934, as it may be amended from time to time, including administrative or judicial interpretations thereof, as it applies to the Bonds.

“SEC” shall mean the United States Securities and Exchange Commission.

“State” shall mean the State of New Jersey.

### **3. Provision of Annual Reports.**

(a) The Authority shall, not later than May 1 of each year during which any of the Bonds remain Outstanding, provide to the MSRB, in accordance with the provisions of Section 6 of this Disclosure Agreement, the Annual Report prepared for the respective fiscal year of the Authority ending the immediately preceding December 31 (or if the fiscal year of the Authority shall end on any date other than December 31, the Authority shall provide its Annual Report to the MSRB not later than the first day of the fifth month next following the end of such other fiscal year). Each Annual Report shall comply with the requirements of Section 4 of this Disclosure Agreement and may be submitted as a single document or as separate documents comprising a package.

(b) The Authority shall, at the same time as it submits the Annual Report to the MSRB, provide written notice of such submission to the Co-Trustees.

(c) The Authority shall also file with the MSRB, in a timely manner and in accordance with the provisions of Section 6 of this Disclosure Agreement, notice of any failure of the Authority to provide an Annual Report in compliance with the requirements of this Section 3 and Section 4 of this Disclosure Agreement.

### **4. Contents of Annual Report.**

(a) The Annual Report shall include information pertaining to the Authority of the type appearing in the Official Statement circulated in connection with the issuance of the Bonds and will include the (i) audited financial statements of the Authority for the preceding fiscal year of the Authority as required by Section 3(a) hereof prepared using the accounting standards described in subsection (b) of this Section 4, (ii) annual budgets of the Authority, (iii) debt service coverage certifications, and (iv) management’s discussion of results of operations, if and to the extent not otherwise provided in the audited financial statements. In the event that audited financial statements are not available on the date required in Section 3(a) hereof, the Authority shall file unaudited financial statements for such fiscal year until audited financial statements are available. Each Annual Report may cross-reference other information which is available to the public on the MSRB’s internet website or which has been filed with the SEC and, if the document incorporated by reference is a final official statement, it must be available from the MSRB.

(b) As of the date of this Disclosure Agreement, the Authority prepares its financial statements in accordance with generally accepted accounting principles in the United States of America.

### **5. Reporting of Listed Events.**

(a) This Section 5 shall govern the giving of notices of the occurrence, with respect to the Bonds, of any of the following Listed Events:

- (1) Principal and interest payment delinquencies;
- (2) Non-payment related defaults, if material;
- (3) Unscheduled draws on debt service reserves reflecting financial difficulties;
- (4) Unscheduled draws on credit enhancements reflecting financial difficulties;
- (5) Substitution of credit or liquidity providers, or their failure to perform;
- (6) Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations 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) Bond calls, if material, and tender offers;
- (9) Defeasances of the Bonds;
- (10) Release, substitution, or sale of property securing repayment of the Bonds, if material;
- (11) Rating changes relating to the Bonds;
- (12) Bankruptcy, insolvency, receivership or similar event of the Authority;
- (13) The consummation of a merger, consolidation, or acquisition involving the Authority or the sale of all or substantially all of the assets of the Authority, 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; and
- (14) Appointment of a successor or additional trustee for the Bonds or the change of name of a trustee for the Bonds, if material.

(b) The Authority shall, in a timely manner not in excess of ten (10) business days after the occurrence of any Listed Event, file a notice of the occurrence of such Listed Event with the MSRB in accordance with the provisions of Section 6 of this Disclosure Agreement. In determining the materiality of any of the Listed Events specified in subsection (a) of this Section 5, the Authority may, but shall not be required to, rely conclusively on an Opinion of Counsel. The Authority shall also provide written notice of such Listed Event to the Co-Trustees at the same time it provides notice of such Listed Event to the MSRB.

6. **Filing of Continuing Disclosure Information.** Any Continuing Disclosure Information filed with the MSRB in accordance with this Disclosure Agreement shall be in an electronic format as shall be prescribed by the MSRB or such other format as the Rule may require or permit, and shall be accompanied by such identifying information as shall be prescribed by the MSRB or as may otherwise be required by the Rule.

7. **Termination of Reporting Obligation.** The obligations of the Authority under this Disclosure Agreement shall terminate upon the defeasance, prior redemption or payment in full of all of the Bonds.

8. **Amendment; Waiver.** Notwithstanding anything in this Disclosure Agreement to the contrary, the Authority may amend this Disclosure Agreement, and any provision of this Disclosure Agreement may be waived, if such amendment or waiver is supported by an Opinion of Counsel addressed to the Authority and the Co-Trustees to the effect that such amendment or waiver will not, in and of itself, cause the undertakings herein to violate the Rule.

9. **Additional Information.** Nothing in this Disclosure Agreement shall be deemed to prevent the Authority from disseminating any other information, using the means of dissemination set forth in this Disclosure Agreement 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 Agreement. If the Authority 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 Agreement, it shall not have any obligation under this Disclosure Agreement to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

10. **Default.** In the event of a failure of the Authority to comply with any provision of this Disclosure Agreement, the Co-Trustees may (and, at the written request of the Holders of at least 25% in aggregate principal amount of Outstanding Bonds affected by such failure, shall), or any Bondholder may take such actions at law or in equity as may be necessary and appropriate to enforce the specific performance and observance of the obligations of the Authority under this Disclosure Agreement; provided, however, that no person or entity shall be entitled to recover monetary damages hereunder under any circumstances and the right of any Bondholder, or the Co-Trustees on behalf of Bondholders, to challenge the adequacy of information provided pursuant to this Disclosure Agreement shall be limited in the same manner as enforcement rights are limited under the Resolution. A default under this Disclosure Agreement shall not be deemed an Event of Default under the Bonds or the Resolution, and the sole remedy under this Disclosure Agreement in the event of any failure of the Authority to comply with this Disclosure Agreement shall be an action to compel performance.

11. **Beneficiaries.** This Disclosure Agreement shall inure solely to the benefit of the Bondholders, and each Bondholder is hereby declared to be a third party beneficiary of this Disclosure Agreement. Except as provided in the immediately preceding sentence, this Disclosure Agreement shall create no rights in any other person or entity.

12. **Notices.** All notices and other communications required or permitted under this Disclosure Agreement shall be in writing and shall be deemed to have been duly given and made

only when delivered (personally, by recognized national or regional courier service, or by other messenger, for delivery to the intended addressee) or when deposited in the United States mail, registered or certified mail, postage prepaid, return receipt requested, addressed as set forth below:

- (i) *If to the New Jersey Turnpike Authority:*  
1 Turnpike Plaza  
P.O. Box 5042  
Woodbridge, New Jersey 07095  
Attention: Joseph W. Mrozek, Executive Director
- (ii) *If to the Co-Trustees:*
  - (a) The Bank of New York Mellon  
Global Corporate Trust  
385 Rifle Camp Road, 3<sup>rd</sup> Floor  
Woodland Park, NJ 07424  
Attention: Vanessa Mesa, Vice President
  - (b) U.S. Bank National Association  
21 South Street, 3<sup>rd</sup> Floor  
Morristown, NJ 07960  
Attention: Christopher E. Golabek, Vice President

Any party may alter the address to which communications are to be sent by giving notice of such change of address in conformity with the provisions of this Section 12.

13. **Successors and Assigns.** All of the covenants, promises and agreements contained in this Disclosure Agreement by or on behalf of the Authority or the Co-Trustees shall bind and inure to the benefit of their respective successors and assigns, whether so expressed or not.

14. **Headings for Convenience Only.** The descriptive headings in this Disclosure Agreement are inserted for convenience of reference only and shall not control or affect the meaning or construction of any of the provisions hereof.

15. **Counterparts.** This Disclosure Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

16. **Severability.** If any provision of this Disclosure Agreement, or the application of any such provision in any jurisdiction or to any person or circumstance, shall be held invalid or unenforceable, the remaining provisions of this Disclosure Agreement, or the application of such provision as is held invalid or unenforceable in jurisdictions or to persons or circumstances other than those in or as to which it is held invalid or unenforceable, shall not be affected thereby.

17. **Governing Law.** This Disclosure Agreement shall be governed by and construed in accordance with the laws of the State.

18. **Compliance with L. 2005, c. 271 Reporting Requirements.** Each Co-Trustee is hereby advised of its responsibility to file an annual disclosure statement on political contributions with the New Jersey Election Law Enforcement Commission (“ELEC”) pursuant to *N.J.S.A. 19:44A-20.13* (L. 2005, c. 271, section 3) if the Co-Trustee enters into contracts or agreements with public entities in the State, such as the Authority, and receives compensation or fees in excess of \$50,000 or more in the aggregate from public entities in the State, such as the Authority, in a calendar year. It is each Co-Trustee’s responsibility to determine if filing is necessary. Failure to do so can result in the imposition of financial penalties by ELEC. Additional information about this requirement is available from ELEC at 888-313-3532 or at [www.elec.state.nj.us](http://www.elec.state.nj.us).

19. **Compliance with L. 2005, c. 92.** In accordance with L. 2005, c. 92, each Co-Trustee agrees that all services performed under this Disclosure Agreement or any subcontract awarded under this Disclosure Agreement shall be performed within the United States of America.

20. **Certain Provisions Relating to the Co-Trustees.** The provisions of Article IX of the Resolution relating to the duties, obligations, protections and indemnities of the Co-Trustees shall apply to the Co-Trustees’ performance of this Disclosure Agreement and are by this reference incorporated as if set forth in full herein.

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[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the NEW JERSEY TURNPIKE AUTHORITY, THE BANK OF NEW YORK MELLON and U.S. BANK NATIONAL ASSOCIATION have caused this Disclosure Agreement to be executed and delivered in their respective names by their respective authorized officers, all as of the date first above written.

**NEW JERSEY TURNPIKE AUTHORITY**

By: \_\_\_\_\_  
JOSEPH W. MROZEK  
Executive Director

**THE BANK OF NEW YORK MELLON,  
as Co-Trustee**

By: \_\_\_\_\_  
Name:  
Title:

**U.S. BANK NATIONAL ASSOCIATION,  
as Co-Trustee**

By: \_\_\_\_\_  
Name:  
Title:



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