

**NEW ISSUE**

See “RATINGS” herein.

*In the opinion of Bond Counsel, under existing law and assuming compliance with the tax covenants described herein, and the accuracy of certain representations and certifications made by the Authority described herein, interest on the Series 2010 A Bonds is excluded from gross income for Federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the “Code”). Bond Counsel is also of the opinion that such interest is not treated as a preference item in calculating the alternative minimum tax imposed under the Code with respect to individuals and corporations. Bond Counsel is further of the opinion that the Series 2010 A Bonds, their transfer and the income therefrom, including any profit made on the sale thereof, are exempt from taxation by and within the State of Rhode Island (the “State”); although the Series 2010 A Bonds, their transfer and the income therefrom, including any profit made on the sale thereof, may be included in the measure of State estate taxes and certain State corporate and business taxes. (See “TAX STATUS” and APPENDIX E herein).*

**\$50,000,000**  
**RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY**  
**Revenue Bonds**  
**Series 2010 A**

**Dated: Date of Delivery**

**Due: December 1 as set forth on the inside cover hereof**

The Rhode Island Turnpike and Bridge Authority Revenue Bonds, Series 2010 A (the “Series 2010 A Bonds”) are being issued by the Rhode Island Turnpike and Bridge Authority (the “Authority”) pursuant to Chapter 24-12-1, *et. seq.* of the Rhode Island General Laws, as amended (the “Authority Act”), Rhode Island Public Laws 2009, Ch. 68, Art. 17, Sec. 7 (the “Authorizing Act”) and together with the Authority Act, the “Act”) and an Amended and Restated Master Indenture of Trust, dated as of July 1, 2003 and amended and restated as of April 1, 2010 (the “Master Indenture”), by and between the Authority and U.S. Bank National Association, as trustee (the “Trustee”), as amended and supplemented, including as amended and supplemented by that certain Second Supplemental Indenture of Trust, dated as of April 1, 2010 (the “Second Supplemental Indenture” and together with the Master Indenture, the “Indenture”).

The Series 2010 A Bonds will only be issued as fully registered bonds under a book-entry-only system. The Series 2010 A Bonds will be registered initially in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York (“DTC”), which will act as securities depository for the Series 2010 A Bonds. Purchases of beneficial interests in the Series 2010 A Bonds will be made in book-entry-only form in denominations of \$5,000 or any integral multiples thereof. Purchasers will not receive certificates representing the ownership interest in the Series 2010 A Bonds purchased by them.

Principal of, premium, if any, and interest on the Series 2010 A Bonds will be paid by U.S. Bank National Association, Boston, Massachusetts, as paying agent (the “Paying Agent”) to DTC. So long as DTC or its nominee, Cede & Co., is the Bondholder, payments on the Series 2010 A Bonds will be made to such Bondholder. Disbursement of such payments to Beneficial Owners will be the responsibility of DTC and its participants, as more fully described herein. See “THE SERIES 2010 A BONDS - Book-Entry Only System” herein. Interest on the Series 2010 A Bonds (calculated on the basis of a 360-day year of twelve 30-day months) will be payable on December 1, 2010 and semi-annually thereafter on June 1 and December 1 of each year at the rates shown in the maturity schedule on the inside front cover hereof to the Bondholders of record as of the fifteenth day (regardless of whether a Business Day) of the month preceding the month in which interest is to be paid.

**The Series 2010 A Bonds are subject to redemption prior to maturity as described herein.**

Proceeds of the Series 2010 A Bonds will be used to finance: (i) the renovation, renewal, repair, rehabilitation, retrofitting, upgrading and improvement of the Claiborne Pell Bridge, the Mount Hope Bridge and such other projects as are authorized under the Act, (ii) the replacement of the components thereof; (iii) working capital expenses; (iv) the interest component of the Series 2010 A Debt Service Reserve Fund Requirement, and (v) the costs of issuing the Series 2010 A Bonds. Certain other available funds of the Authority will be used to finance the principal component of the Series 2010 A Debt Service Reserve Fund Requirement.

The Series 2010 A Bonds will be limited obligations of the Authority and will be payable solely from the Net Revenues derived by the Authority from the operation of the System as defined herein and from amounts on deposit in certain funds, accounts and sub-accounts established pursuant to the Indenture.

THE SERIES 2010 A BONDS ARE SPECIAL OBLIGATIONS OF THE AUTHORITY. NEITHER THE STATE NOR THE AUTHORITY SHALL BE OBLIGATED TO PAY THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2010 A BONDS EXCEPT FROM REVENUES AND OTHER FUNDS PLEDGED THEREFOR UNDER THE PROVISIONS OF THE ACT. IN NO EVENT SHALL THE SERIES 2010 A BONDS BE DEEMED TO CONSTITUTE A DEBT, LIABILITY OR OBLIGATION OF THE STATE OR ANY POLITICAL SUBDIVISION THEREOF AND NEITHER THE FAITH AND CREDIT NOR TAXING POWER OF THE STATE OR ANY POLITICAL SUBDIVISION THEREOF IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2010 A BONDS. THE AUTHORITY HAS NO TAXING POWER.

**AMOUNTS, MATURITIES, INTEREST RATES AND PRICES OR YIELDS ARE SET FORTH ON THE INSIDE COVER.**

*The Series 2010 A Bonds are offered when, as and if issued and accepted by the Underwriters, subject to delivery of an approving legal opinion by Nixon Peabody LLP, Providence, Rhode Island, Bond Counsel, and to certain other conditions. Certain legal matters will be passed upon for the Authority by Hinckley, Allen & Snyder LLP, Providence, Rhode Island, Disclosure Counsel for the Authority. Certain legal matters will be passed upon for the Underwriters by their counsel, Taft & McSally LLP, Cranston, Rhode Island. Delivery of the Series 2010 A Bonds is expected to be made on or about April 8, 2010.*

**BofA Merrill Lynch**

**Janney Montgomery Scott**

**Morgan Stanley**

Dated: March 25, 2010

MATURITY SCHEDULE

\$50,000,000  
 Rhode Island Turnpike and Bridge Authority  
 Revenue Bonds, Series 2010 A

<u>Maturity (December 1)</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Yield</u>	<u>Initial CUSIP*</u>
2018	\$ 1,345,000	3.500%	3.770%	762324CY5
2019	1,405,000	5.000	3.970	762324CZ2
2020	1,475,000	5.000	4.130	762324CM1
2021	1,545,000	4.000	4.240	762324CN9
2022	1,605,000	4.000	4.320	762324CP4
2023	1,675,000	4.125	4.410	762324CQ2
2024	1,745,000	4.250	4.510	762324CR0
2025	1,825,000	4.500	4.610	762324CS8
2026	1,905,000	4.500	4.690	762324CT6
2027	1,995,000	4.625	4.770	762324CU3
2028	1,595,000	4.625	4.860	762324CV1
2028	500,000	5.000	4.860**	762324DC2
2029	2,195,000	4.750	4.950	762324CW9
2030	2,300,000	4.750	4.990	762324CX7

**\$8,135,000 5.125% Term Bond, Due December 1, 2035, Yield 5.150% Initial CUSIP No. 762324DA6\***  
**\$5,290,000 5.000% Term Bond, Due December 1, 2035, Yield 5.150% Initial CUSIP No. 762324DD0\***  
**\$13,465,000 5.000% Term Bond, Due December 1, 2039, Yield 5.200% Initial CUSIP No. 762324DB4\***

\* CUSIP numbers have been assigned by an independent company not affiliated with the Issuer and are included solely for the convenience of the holders of the Series 2010 A Bonds. Neither the State nor the Authority is responsible for the selection or uses of these CUSIP numbers, and no representation is made as to their correctness on the Series 2010 A Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the issuance of the Series 2010 A Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of certain maturities of the Series 2010 A Bonds.

\*\* Yield to first optional redemption date of December 1, 2020.

**RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY**

Members

David A. Darlington, Chairman

Richard P. Eannarino, Vice Chairman

Arthur H. Fletcher

Stephen C. Waluk

Michael P. Lewis,  
Director of Rhode Island Department of Transportation

Executive Director

Earl J. (Buddy) Croft, III

Chief Financial Officer/Controller

Christine Callahan

Director of Toll Plaza Operations

Marianne Hillier

Director of Engineering

Peter Janaros, P.E.

Bond Counsel

Nixon Peabody LLP  
Providence, Rhode Island

Disclosure Counsel

Hinckley, Allen & Snyder LLP  
Providence, Rhode Island

Financial Advisor

First Southwest Company  
Lincoln, Rhode Island

Consulting Engineers

Parsons Brinckerhoff Inc.  
New York, New York

Traffic Engineer

Jacobs Engineering Group, Inc.  
New York, New York

NO DEALER, BROKER, SALESPERSON OR 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 INFORMATION OR REPRESENTATION MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED BY THE AUTHORITY OR BY FIRST SOUTHWEST COMPANY, THE FINANCIAL ADVISOR TO THE AUTHORITY. THIS OFFICIAL STATEMENT IS NOT TO BE CONSTRUED AS A CONTRACT OR AGREEMENT BETWEEN THE AUTHORITY AND THE OWNERS OR ANY BENEFICIAL OWNERS OF ANY OF THE SERIES 2010 A BONDS. THE INFORMATION AND EXPRESSIONS OF OPINION HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE AND NEITHER THE DELIVERY OF THIS OFFICIAL STATEMENT NOR ANY SALE HEREUNDER SHALL, UNDER ANY CIRCUMSTANCES CREATE ANY IMPLICATIONS THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF THE AUTHORITY SINCE THE DATE HEREOF.

THE INFORMATION CONTAINED HEREIN HAS BEEN OBTAINED FROM THE AUTHORITY AND OTHER SOURCES BELIEVED TO BE RELIABLE, BUT IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS AND IS NOT TO BE CONSTRUED AS A REPRESENTATION, AS TO INFORMATION FROM SOURCES OTHER THAN THE AUTHORITY, OF 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 ANY OF THE SERIES 2010 A BONDS IN ANY JURISDICTION IN WHICH SUCH OFFER, SOLICITATION OR SALE IS NOT QUALIFIED, OR TO ANY PERSON TO WHOM IT IS UNLAWFUL TO MAKE SUCH OFFER, SOLICITATION OR SALE.

UPON ISSUANCE, THE SERIES 2010 A BONDS WILL NOT BE REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAW, AND WILL NOT BE LISTED ON ANY STOCK OR OTHER SECURITIES EXCHANGE. NEITHER THE SECURITIES EXCHANGE COMMISSION NOR ANY OTHER FEDERAL, STATE OR OTHER GOVERNMENTAL ENTITY OR AGENCY WILL HAVE PASSED UPON THE ACCURACY OF THIS OFFICIAL STATEMENT OR, EXCEPT FOR THE AUTHORITY, APPROVED THE SERIES 2010 A BONDS FOR SALE.

THE FINANCIAL ADVISOR OF 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.

THE UNDERWRITERS HAVE PROVIDED THE FOLLOWING SENTENCE FOR INCLUSION IN THIS OFFICIAL STATEMENT: THE UNDERWRITERS HAVE REVIEWED THE INFORMATION IN THIS OFFICIAL STATEMENT IN ACCORDANCE WITH, AND AS PART OF, ITS RESPONSIBILITIES TO INVESTORS UNDER THE FEDERAL SECURITIES LAWS AS APPLIED TO THE FACTS AND CIRCUMSTANCES OF THIS TRANSACTION, BUT THE UNDERWRITERS DO NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION.

IN CONNECTION WITH THE OFFERING OF THE SERIES 2010 A BONDS, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICE OF SUCH BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME, WITHOUT PRIOR NOTICE.

The Authority has undertaken to provide continuing disclosure with respect to the Series 2010 A Bonds as required by Rule 15c2-12 of the Securities and Exchange Commission.

IN MAKING AN INVESTMENT DECISION INVESTORS MUST RELY ON THEIR OWN EXAMINATION OF THE AUTHORITY AND THE TERMS OF THE OFFERING, INCLUDING THE MERITS AND RISKS INVOLVED. THESE SECURITIES HAVE NOT BEEN RECOMMENDED BY ANY FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NOT CONFIRMED THE ACCURACY OR DETERMINED THE ADEQUACY OF THIS DOCUMENT AND ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

THE COVER PAGE HEREOF, THE INSIDE COVER PAGE, THIS PAGE AND THE APPENDICES ATTACHED HERETO ARE PART OF THIS OFFICIAL STATEMENT.

#### FORWARD-LOOKING STATEMENTS

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 “plan,” “expect,” “estimate,” “budget” or other similar words. The achievement of certain results or other expectations in these forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements described to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. The Authority does not plan to issue any updates or revisions to those forward-looking statements if or when changes in their expectations, or events, conditions or circumstances on which these statements are based occur.

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## OFFICIAL STATEMENT

**\$50,000,000**  
**Rhode Island Turnpike and Bridge Authority**  
**Revenue Bonds**  
**Series 2010 A**

### INTRODUCTION

This Official Statement, including the cover page and the appendices, is furnished by the Rhode Island Turnpike and Bridge Authority (the "Authority") a body corporate and politic created under Title 24 Chapter 12 of the Rhode Island General Laws as amended (the "Authority Act"), to provide information in connection with the sale by the Authority of \$50,000,000 aggregate principal amount of Revenue Bonds, Series 2010 A (the "Series 2010 A Bonds"). Certain capitalized terms that are not otherwise defined in this Official Statement have the meanings set forth in the Indenture. See APPENDIX A -- "Summary of Definitions and the Indenture".

The Series 2010 A Bonds will be issued pursuant to the Authority Act, Rhode Island Public Laws 2009, Ch. 68, Art. 17, Sec. 7 (the "Authorizing Act") (the Authorizing Act together with the Authority Act, the "Act") and a resolution adopted by the Authority on March 10, 2010. The Series 2010 A Bonds will be issued under and secured by an Amended and Restated Master Indenture of Trust dated as of July 1, 2003 and amended and restated as of April 1, 2010 (the "Master Indenture"), as amended and supplemented by that certain First Supplemental Indenture of Trust dated as of July 1, 2003 (the "First Supplemental Indenture") and as further amended and supplemented by that certain Second Supplemental Indenture of Trust dated as of April 1, 2010 (the "Second Supplemental Indenture"), all by and between the Authority and U.S. Bank National Association, Boston, Massachusetts, as trustee (the "Trustee"), (the Master Indenture, the First Supplemental Indenture and the Second Supplemental Indenture are collectively referred to herein as the "Indenture").

The Series 2010 A Bonds will provide funds to finance: (i) the renovation, renewal, repair, rehabilitation, retrofitting, upgrading and improvement of the Claiborne Pell Bridge, the Mount Hope Bridge and such other projects as are authorized under the Act, (ii) the replacement of the components thereof; (iii) working capital expenses; (iv) the interest component of the Series 2010 A Debt Service Reserve Fund Requirement, and (v) the costs of issuing the Series 2010 A Bonds (the "Series 2010 A Project"). Certain other available funds of the Authority will be used to finance the principal component of the Series 2010 A Debt Service Reserve Fund Requirement. See "PLAN OF FINANCE" and "SOURCES AND USES OF FUNDS" herein.

The Series 2010 A Bonds will be limited obligations of the Authority and will be payable solely from the Net Revenues derived by the Authority from the operation of the System as defined herein and from certain funds, accounts and sub-accounts established pursuant to the Indenture. See "AUTHORIZED PROJECTS", "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2010 A BONDS" and APPENDIX A -- "Summary of Definitions and the Indenture".

The Series 2010 A Bonds will be secured on a parity with the Authority's Taxable Refunding Revenue Bonds Series 2003 A (the "Series 2003 A Bonds") which, as of June 30, 2009, were outstanding in the principal amount of \$23,625,000.

THE SERIES 2010 A BONDS ARE SPECIAL OBLIGATIONS OF THE AUTHORITY. NEITHER THE STATE OF RHODE ISLAND (THE "STATE") NOR THE AUTHORITY SHALL BE OBLIGATED TO PAY THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2010 A BONDS EXCEPT FROM REVENUES AND OTHER FUNDS PLEDGED THEREFOR UNDER THE PROVISIONS OF THE ACT. IN NO EVENT SHALL THE SERIES 2010 A BONDS BE DEEMED TO CONSTITUTE A DEBT, LIABILITY OR OBLIGATION OF THE STATE OR ANY POLITICAL SUBDIVISION THEREOF AND NEITHER THE FAITH AND CREDIT NOR TAXING POWER OF THE STATE OR ANY POLITICAL SUBDIVISION THEREOF IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2010 A BONDS. THE AUTHORITY HAS NO TAXING POWER.

## **AUTHORIZED PROJECTS**

The Indenture distinguishes between authorized projects that are part of the System (“System Projects”) and those that are not part of the System (“Non-System Projects”). System Projects are currently comprised of one toll facility, the Claiborne Pell Bridge (as defined below), from which the Authority derives all of its Net Revenues and one non-toll facility, the Mount Hope Bridge (as defined below). See “THE RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY” ” and “THE CLAIBORNE PELL BRIDGE AND THE MOUNT HOPE BRIDGE”. Only System Projects are eligible for financing from Bonds issued under the Indenture. All other projects now or hereafter authorized by the Act to be undertaken by the Authority are categorized as Non-System Projects. Non-System Projects are not a part of the System unless and until such time as a Non-System Project is designated by the Authority as a System Project after satisfying certain requirements set forth in the Indenture. Non-System Projects may not be financed by Bonds but only from Subordinated Debt or from monies in the Authority’s General Fund. Operations, maintenance and other costs of such Non-System Projects may be funded only from monies available in the General Fund. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2010 A BONDS - Other Indebtedness” herein.

## **PLAN OF FINANCE**

The Series 2010 A Bonds are being issued as part of a statutory plan of finance specifically authorized by the Act and designed to finance the Series 2010 A Project. The Authorizing Act authorizes the Authority to issue bonds, including the Series 2010 A Bonds, in an amount not to exceed \$50,000,000 to be secured by toll and other revenues, for the purpose of providing funds to finance the Series 2010 Project. A more detailed description of those portions of the Series 2010 A Project benefitting the Claiborne Pell Bridge and the Mount Hope Bridge is under the heading “THE CLAIBORNE PELL BRIDGE AND THE MOUNT HOPE BRIDGE – Contract Maintenance and Capital Projects” herein.

The Authority engaged PB Americas, Inc. of New York, New York (“Parsons”), a nationally-recognized engineering firm to conduct a risk management study to evaluate the Authority’s procedures to avoid, prepare for and respond to natural and manmade concerns. In 2009, Parsons conducted inspections of the Mount Hope Bridge and the Claiborne Pell Bridge and presented its findings and recommendations to the Authority. The Authority used Parsons’ findings and recommendations as a basis for developing and identifying the projects to be included in its Ten Year Renewal and Replacement Plan (the “Ten Year Plan”). See APPENDIX D – “2009 Ten Year Renewal and Replacement Plan Narrative Summary”.

On September 23, 2009, the Authority’s Board approved the projects prioritized for the first five (5) fiscal years, consisting of fiscal years 2010 through 2014 (the “Approved Years”), of the Ten Year Plan. The remaining projects in the last five (5) fiscal years of the Ten Year Plan, consisting of fiscal years 2015 through 2019, were deferred for future consideration. The cost to complete the projects during the Approved Years of the Ten Year Plan is estimated to be approximately \$124,000,000. The Series 2010 A Bond proceeds will fund a portion of the cost of the projects during the Approved Years of the Ten Year Plan. In addition to the Series 2010 A Bonds, the Governor has included in his proposed State Budget for Fiscal Year 2011 (the “Governor’s Proposed FY 2011 State Budget”), authorization for the Authority to issue up to \$68,090,000 in Additional Bonds which if approved, would be used to fund additional costs of the projects during the Approved Years of the Ten Year Plan. The Authority’s plan of finance currently provides for the issuance of approximately \$55,175,000 in Additional Bonds in 2011 pursuant to this authorization. The Authority also can use funds on deposit in the Renewal and Replacement Fund, or seek authority to issue Additional Bonds, if additional funds are needed to complete the projects during the Approved Years. As of December 31, 2009 there was \$18,852,024 on deposit in the Renewal and Replacement Fund.

## SOURCES AND USES OF FUNDS

The proceeds of the Series 2010 A Bonds, together with certain other available funds of the Authority, are expected to be applied as follows:

### Sources

Par Amount of the Series 2010 A Bonds	\$ 50,000,000.00
Net Original Issue Discount	(794,545.00)
Other Available Funds of the Authority	<u>976,371.67</u>
Total Sources of Funds:	\$ 50,181,826.67

### Uses

Deposit to 2010 A Project Account	\$ 45,497,633.41
Deposit to 2010 A Debt Service Reserve Account*	3,715,250.00
Costs of Issuance †	<u>968,943.26</u>
Total Uses of Funds:	\$ 50,181,826.67

\* Includes \$2,738,878.33 from proceeds of the Series 2010 A Bonds used to finance the interest component of the Series 2010 A Debt Service Reserve Fund Requirement and \$976,371.67 from other available funds of the Authority used to finance the principal component of the Series 2010 A Debt Service Reserve Fund Requirement.

† Includes legal fees, underwriters' discount, rating agency fees and other miscellaneous costs of issuance.

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## ANNUAL DEBT SERVICE

The debt service payable from Net Revenues on the Series 2010 A Bonds is set forth below. Debt service on the Series 2010 A Bonds will be payable from Net Revenues on a parity with the Series 2003 A Bonds. Obligations payable from Net Revenues may be issued in the future as permitted by the Indenture. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2010 A BONDS”.

Fiscal Period Year Ending <u>June 30</u>	<u>Principal</u>	<u>Interest*</u>	Total Debt Service on Series 2010 A <u>Bonds*</u>	Existing Debt Service on Outstanding Series 2003 A <u>Bonds*</u>	Aggregate Debt <u>Service*</u>
2010	\$	\$	\$	\$ 523,359	\$ 523,359
2011		2,738,878	2,738,878	3,268,368	6,007,246
2012		2,387,400	2,387,400	3,266,692	5,654,092
2013		2,387,400	2,387,400	3,259,462	5,646,862
2014		2,387,400	2,387,400	3,257,498	5,644,898
2015		2,387,400	2,387,400	3,251,984	5,639,384
2016		2,387,400	2,387,400	3,247,296	5,634,696
2017		2,387,400	2,387,400	3,247,536	5,634,936
2018		2,387,400	2,387,400	3,237,503	5,624,903
2019	1,345,000	2,363,862	3,708,862		3,708,862
2020	1,405,000	2,305,200	3,710,200		3,710,200
2021	1,475,000	2,233,200	3,708,200		3,708,200
2022	1,545,000	2,165,425	3,710,425		3,710,425
2023	1,605,000	2,102,425	3,707,425		3,707,425
2024	1,675,000	2,035,778	3,710,778		3,710,778
2025	1,745,000	1,964,150	3,709,150		3,709,150
2026	1,825,000	1,886,006	3,711,006		3,711,006
2027	1,905,000	1,802,081	3,707,081		3,707,081
2028	1,995,000	1,713,084	3,708,084		3,708,084
2029	2,095,000	1,617,565	3,712,565		3,712,565
2030	2,195,000	1,516,050	3,711,050		3,711,050
2031	2,300,000	1,409,293	3,709,293		3,709,293
2032	2,420,000	1,293,253	3,713,253		3,713,253
2033	2,545,000	1,167,250	3,712,250		3,712,250
2034	2,680,000	1,034,650	3,714,650		3,714,650
2035	2,815,000	895,193	3,710,193		3,710,193
2036	2,965,000	748,500	3,713,500		3,713,500
2037	3,120,000	595,250	3,715,250		3,715,250
2038	3,280,000	435,250	3,715,250		3,715,250
2039	3,445,000	267,125	3,712,125		3,712,125
2040	3,620,000	90,500	3,710,500		3,710,500

\*Numbers have been rounded to the nearest dollar for purposes of this table.

## THE SERIES 2010 A BONDS

### General

The Series 2010 A Bonds will be dated the date of delivery and will bear interest from that date until paid or redeemed, payable semiannually on each June 1 and December 1 commencing December 1, 2010. The Series 2010 A Bonds will bear interest at the rates per year, and will mature in the principal amounts on December 1 in each year, as set forth on the inside cover page of this Official Statement. Interest on the Series 2010 A Bonds will be computed on the basis of a 360-day year consisting of twelve 30-day months.

Initially, one fully registered bond for each maturity will be issued in the aggregate principal amount for such maturity as set forth on the inside cover page of this Official Statement and shall be delivered to and initially registered in the name of Cede & Co., as registered owner and nominee for DTC. Purchases of beneficial interests in the Series 2010 A Bonds will be made in book-entry only form, in denominations of \$5,000 or any integral multiple thereof. Purchasers of beneficial ownership interests in the Series 2010 A Bonds (the “Beneficial Owners”) will not receive certificates representing their respective interests in the Series 2010 A Bonds purchased. So long as Cede & Co., as nominee of DTC, is the Bondholder, references herein to the Bondholders or registered owners shall mean Cede & Co., as aforesaid, and shall not mean the Beneficial Owners of the Series 2010 A Bonds. The principal of, premium, if any, and interest on the Series 2010 A Bonds will be paid by the Paying Agent. As long as DTC or its nominee, Cede & Co., is the registered owner of the Series 2010 A Bonds, such payments will be made directly to Cede & Co.

**Redemption Provisions**

Optional Redemption. The Series 2010 A Bonds maturing on or after December 1, 2021 shall be subject to redemption prior to maturity at the option of the Authority as a whole or in part at any time, and if in part, by lot within a maturity, on and after December 1, 2020, at the redemption prices (expressed as percentages of the principal amount of such Series 2010 A Bonds or portions thereof to be redeemed) set forth below, together with accrued and unpaid Interest to the date fixed for redemption, upon the notice and in the manner and subject to the provisions of the Master Indenture:

<u>Period During Which Redeemed</u> <u>(both dates inclusive)</u>	<u>Redemption</u> <u>Price</u>
December 1, 2020 and thereafter	100%

Mandatory Sinking Fund Redemption. The Series 2010 A Bonds maturing on December 1, 2035 with a 5.125% interest coupon are subject to redemption from sinking fund installments at their principal amounts, without premium, on December 1 of each of the years and in the principal amounts as follows:

<u>Year</u>	<u>Principal</u> <u>Amount</u>
2031	\$1,465,000
2032	1,540,000
2033	1,620,000
2034	1,710,000
2035*	1,800,000

The Series 2010 A Bonds maturing on December 1, 2035 with a 5.00% interest coupon are subject to redemption from sinking fund installments at their principal amounts, without premium, on December 1 of each of the years and in the principal amounts as follows:

<u>Year</u>	<u>Principal</u> <u>Amount</u>
2031	\$ 955,000
2032	1,005,000
2033	1,060,000
2034	1,105,000
2035*	1,165,000

\* Final maturity.

The Series 2010 A Bonds maturing on December 1, 2039 are subject to redemption from sinking fund installments at their principal amounts, without premium, on December 1 of each of the years and in the principal amounts as follows:

<u>Year</u>	<u>Principal Amount</u>
2036	\$3,120,000
2037	3,280,000
2038	3,445,000
2039*	3,620,000

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\* Final maturity.

The Authority may purchase Series 2010 A Bonds of any maturity and credit them against the principal payment for such maturity or, as the case may be, any sinking fund installment for such maturity at the principal amount or applicable redemption price, as the case may be, by delivering them to the Trustee for cancellation at least sixty (60) days before the principal payment date or sinking fund installment date.

*Method of Selecting Bonds for Redemption.* The Series 2010 A Bonds shall be selected for redemption as follows: (a) in the event that less than all of the Series 2010 A Bonds are to be redeemed, the maturities to be redeemed and the method of their selection shall be determined by the Authority, and (b) in the event that less than all Series 2010 A Bonds of a maturity are to be redeemed, the Series 2010 A Bonds of such maturity to be redeemed shall be selected by lot by the Trustee in such manner, in its discretion, as it shall deem appropriate and fair.

*Notice of Redemption.* Any notice of redemption shall be sent by the Trustee not less than thirty (30) nor more than forty-five (45) days prior to the date set for redemption by first class mail (i) to the Holder of each such Bond to be redeemed in whole or in part at the Holder’s address as it appears on the Register; (ii) to all organizations registered with the Securities and Exchange Commission as securities depositories; and (iii) to at least two (2) information services of national recognition which disseminate redemption information with respect to obligations such as the Bonds. Failure to give any notice specified in (i) to any particular Holder of a Bond, or any defect therein, shall not affect the validity of any proceedings for the redemption of any other Bonds with respect to which no such failure or defect has occurred and failure to give any notice specified in (ii) or (iii), or any defect therein, shall not affect the validity of any proceedings for the redemption of any Bonds with respect to which the notice specified in (i) has been correctly given. Any notice mailed by the Trustee pursuant to this Section shall be deemed received within five (5) days after mailing whether or not actually received.

**Book-Entry Only System**

The information under this heading has been furnished by The Depository Trust Company (“DTC”), New York, New York. 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.

DTC will act as securities depository for the Series 2010 A Bonds. The Series 2010 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 Series 2010 A Bond will be issued for each maturity of the Series 2010 A Bonds, each in the aggregate principal amount of such maturity, 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, corporate and municipal debt issues, and money market instrument from over 100 countries that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales

and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC, is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has Standard & Poor's highest rating: AAA. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at [www.dtcc.com](http://www.dtcc.com) and [www.dtc.org](http://www.dtc.org).

Purchases of the Series 2010 A Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2010 A Bonds on DTC's records. The ownership interest of each actual purchaser of each Series 2010 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 2010 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 the Series 2010 A Bonds, except in the event that use of the book-entry system for the Series 2010 A Bonds is discontinued.

To facilitate subsequent transfers, all Series 2010 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 2010 A Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2010 A Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2010 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 Series 2010 A Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the Series 2010 A Bonds, such as redemptions, tenders, defaults, and proposed amendments to the security documents. For example, Beneficial Owners of Series 2010 A Bonds may wish to ascertain that the nominee holding the Series 2010 A Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners, in the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of the notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Series 2010 A Bonds within an issue 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 such other DTC nominee) will consent or vote with respect to the Series 2010 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 or the Paying Agent as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2010 A Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments and redemption proceeds on the Series 2010 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 the Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Authority or Paying Agent on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC nor its nominee, the Authority or Paying Agent, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Authority, 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 2010 A Bonds at any time by giving reasonable notice to the Authority and Paying Agent. Under such circumstances, in the event that a successor securities depository is not obtained, certificated Series 2010 A Bonds 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, certificated Series 2010 A Bonds 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.**

**THE AUTHORITY, THE UNDERWRITERS AND THE TRUSTEE AND PAYING AGENT WILL HAVE NO RESPONSIBILITY OR OBLIGATION TO SUCH DTC PARTICIPANTS OR THE PERSONS FOR WHOM THEY ACT AS NOMINEE WITH RESPECT TO THE PAYMENTS TO OR THE PROVIDING OF NOTICE FOR THE DTC PARTICIPANTS, OR THE INDIRECT PARTICIPANTS OR BENEFICIAL OWNERS.**

**SO LONG AS CEDE & CO. IS THE REGISTERED OWNER OF THE SERIES 2010 A BONDS, AS NOMINEE OF DTC, REFERENCES HEREIN TO THE SERIES 2010 A BOND OWNERS OR REGISTERED OWNERS OF THE SERIES 2010 A BONDS SHALL MEAN CEDE & CO. AND SHALL NOT MEAN THE BENEFICIAL OWNERS OF THE SERIES 2010 A BONDS.**

Neither the Authority, the Underwriters, the Trustee nor the Paying Agent shall have any responsibility or obligation with respect to: (i) the accuracy of the records of DTC or any Participant with respect to any beneficial ownership interest of the Series 2010 A Bonds; (ii) the delivery to any Participant, Beneficial Owner of the Series 2010 A Bonds or other person, other than DTC, of any notice with respect to the Series 2010 A Bonds; (iii) the payment to any Participant, Beneficial Owner of the Series 2010 A Bonds or other person, other than DTC of any amount with respect to the principal of, premium, if any, or interest on, the Series 2010 A Bonds; (iv) any consent given by DTC as registered owner; or (v) the selection by DTC or any Participant of any Beneficial Owners to receive payment if the Series 2010 A Bonds are redeemed in part.

## **SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2010 A BONDS**

### **Pledge Under the Indenture**

Under the Indenture, the Authority has assigned and pledged to the Trustee in trust upon the terms of the Indenture the following property which constitutes the Trust Estate: (i) Net Revenues of the Authority; (ii) amounts on deposit from time to time in the Funds and Accounts created pursuant to the Indenture, including the earnings thereon as provided in the Indenture, subject to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth in the Indenture; provided, however, that there expressly is excluded from any pledge, assignment, lien or security interest created by the Indenture any amounts on deposit in the Operation and Maintenance Fund, the Rebate Fund, the General Fund and the Purchase Fund, if any; (iii) any and all other revenues and property of any kind from time to time hereafter acquired by delivery or by writing

specifically conveyed, pledged, assigned or transferred, as and for additional security under the Indenture for the Series 2010 A Bonds, by the Authority or by anyone on their behalf, or with their written consent in favor of the Trustee. See APPENDIX A -- “Summary of Definitions and the Indenture”.

**THE SERIES 2010 A BONDS ARE SPECIAL OBLIGATIONS OF THE AUTHORITY. NEITHER THE STATE NOR THE AUTHORITY SHALL BE OBLIGATED TO PAY THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2010 A BONDS EXCEPT FROM REVENUES AND OTHER FUNDS PLEDGED THEREFOR UNDER THE PROVISIONS OF THE ACT. IN NO EVENT SHALL THE SERIES 2010 A BONDS BE DEEMED TO CONSTITUTE A DEBT, LIABILITY OR OBLIGATION OF THE STATE OR ANY POLITICAL SUBDIVISION THEREOF AND NEITHER THE FAITH AND CREDIT NOR TAXING POWER OF THE STATE OR ANY POLITICAL SUBDIVISION THEREOF IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2010 A BONDS. THE AUTHORITY HAS NO TAXING POWER.**

### **Tolls, Fees and Charges**

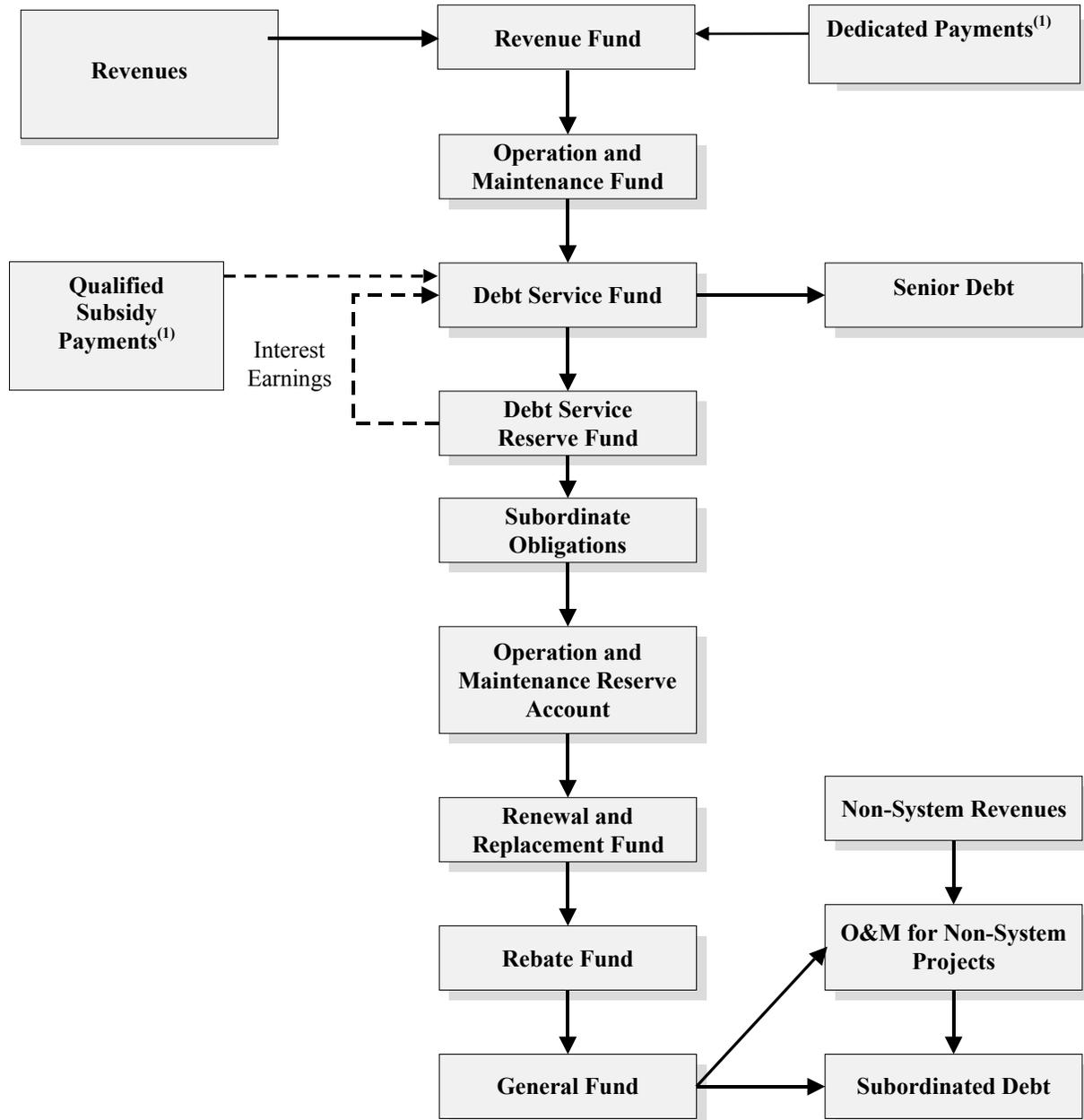
The Indenture contains certain covenants of the Authority with respect to the collection and imposition of tolls, fees and charges. See APPENDIX A -- “Summary of Definitions and the Indenture - Covenants as to Tolls, Etc. and – Uniformity of Tolls”

Ability to Set Tolls. Pursuant to the Act, the Authority has the power to fix and adjust tolls without supervision of or regulation by any governmental body so as to provide sufficient revenues to pay the cost of maintaining, repairing or operating any projects and to pay debt service and create reserves with respect to any bonds issued to finance such projects. The Act, however, sets the commutation rate for the Mount Hope Bridge at the rate that was charged on January 1, 1960. The Mount Hope Bridge is currently a non-toll facility. There is pending legislation which would prohibit the Authority from collecting tolls on the Mount Hope Bridge. See “RECENT EVENTS – Pending Legislation”.

*[Remainder of Page Intentionally Left Blank]*

**Flow of Funds**

The following diagram is intended to provide a graphic summary of the flow of funds established under the Indenture in order of priority. All deposits indicated are to be made on a monthly basis. For a discussion of the flow of funds, see APPENDIX A – “Summary of Definitions and the Indenture”.



<sup>(1)</sup>None currently received by the Authority.

**Debt Service Reserve Fund**

The Indenture establishes a Debt Service Reserve Fund and provides for the establishment of separate accounts therein pursuant to a Supplemental Indenture for each series of Bonds issued under the Indenture. Amounts in each Account in the Debt Service Reserve Fund shall be used to pay debt service on the related series of

Bonds on the date such debt service is due when insufficient moneys for that purpose are available in the Debt Service Fund; provided, however that all amounts in an Account in the Debt Service Reserve Fund shall be used, together with other amounts available for such purpose under the Indenture, to provide for payment of the related series of Bonds when the aggregate of such amounts is sufficient for such purpose. Upon the issuance of the Series 2010 A Bonds, the Authority will have on deposit to the credit of the Debt Service Reserve Fund an amount which will meet the Debt Service Reserve Fund Requirement under the Indenture.

### **Funds and Accounts**

*Operation and Maintenance Reserve Account.* Pursuant to the Indenture, the Authority is required to deposit into the Operation and Maintenance Reserve Account an amount, if any, necessary to make the total amount on deposit in such account equal to the Operation and Maintenance Reserve Account Requirement. The Operation and Maintenance Reserve Account Requirement in any Fiscal Year of the Authority is one-fifth (1/5) of the Operating Expenses budgeted in such Fiscal Year. Amounts in the Operation and Maintenance Reserve Account shall be used to pay Operating Expenses to the extent amounts on deposit in the Operation and Maintenance Fund are not sufficient to make such payments. The Operation and Maintenance Reserve Account was fully funded on the date of issuance of the Series 2003 A Bonds and will remain so funded as of the date of issuance of the Series 2010 A Bonds. Amounts on deposit in the Operation and Maintenance Fund are not pledged to the repayment of the Series 2010 A Bonds.

*Renewal and Replacement Fund.* Amounts in the Renewal and Replacement Fund may be used to pay the costs of any non-annually recurring repair and rehabilitation to the System. Amounts in the Renewal and Replacement Fund shall be pledged to Bondholders. The Authority shall annually determine the Renewal and Replacement Fund Requirement for such fund taking into account the findings of the Consulting Engineer as set forth in the Indenture. See APPENDIX A -- "Summary of Definitions and the Indenture". The Renewal and Replacement Fund was fully funded on the date of issuance of the Series 2003 A Bonds and will remain so funded as of the date of issuance of the Series 2010 A Bonds.

### **Additional Bonds, Completion Bonds and Refunding Bonds**

The Indenture permits the issuance of Additional Bonds, Completion Bonds and Refunding Bonds subject to the limitations described below. For a more complete description of the provisions of the Indenture governing the issuance of Additional Bonds, Completion Bonds and Refunding Bonds, see APPENDIX A -- "Summary of Definitions and the Indenture – Additional Bonds, - Completion Bonds and – Refunding Bonds".

### **Covenant Against Sale or Encumbrance**

Except as otherwise permitted by the Master Indenture, the Authority has covenanted that it will not sell or otherwise dispose of or encumber the System or any part thereof. The Authority may, however, from time to time, sell any machinery, fixtures, apparatus, tools, instruments or other property acquired by the Authority in connection with the System, if the Authority by resolution shall determine that such property is no longer needed or no longer useful in connection with the construction or the maintenance and operation of the System, and the proceeds thereof shall be applied to the replacement of the property so sold or disposed of or to the improvement of any remaining properties or shall be deposited to the credit of such Fund as the Authority may determine.

Notwithstanding the foregoing, the Authority may from time to time permanently abandon the use of, sell, trade or otherwise dispose of any property forming a part of the System, but only upon meeting certain terms established in the Indenture. See APPENDIX A -- "Summary of Definitions and the Indenture - Covenant Against Sale or Encumbrance; Exceptions".

### **Other Indebtedness**

The Indenture provides that only System Projects may be financed by Bonds under the Indenture. The Authority may participate in or fund Non-System Projects, but such Non-System Projects may not be funded from Additional Bonds. Non-System Projects may be funded from Subordinated Debt or monies available in the Authority's General Fund. There are currently no Non-System Projects planned to be funded by the Authority.

Non-System Projects may be designated and become part of the System upon the satisfaction of certain requirements set forth in the Master Indenture. See APPENDIX A – “Summary of Definitions and the Indenture - Addition of Non-System Projects to the System”.

### **Qualified Subsidy Payments**

The Indenture provides that, the Authority may designate Qualified Subsidy Payments and pledge such Qualified Subsidy Payments to the payment of debt service on all Outstanding Bonds, or any Series of Bonds, pursuant to a Supplemental Indenture or by resolution of the Authority. All Qualified Subsidy Payments so pledged and designated shall be deposited upon receipt in the Debt Service Fund as set forth in the Supplemental Indenture or resolution of the Authority. The Authority may in its discretion reverse or modify any pledge and designation of Qualified Subsidy Payments by a further resolution, and any determination to deposit Qualified Subsidy Payments in the Debt Service Fund may be reversed or modified by written direction to the Trustee from an Authorized Officer, provided that such Authorized Officer shall certify to the Trustee that following such reversal or modification the Authority will meet the test for incurring one dollar of Additional Bonds as described in APPENDIX A – Summary of Definitions and the Indenture – Additional Bonds. See APPENDIX A – “Summary of Definitions and the Indenture – Qualified Subsidy Payments”.

### **Dedicated Payments**

The Indenture further provides that, the Authority may designate Dedicated Payments and pledge such Dedicated Payments to the Revenue Fund pursuant to a Supplemental Indenture or by resolution of the Authority. All Dedicated Payments so pledged and designated shall be deposited upon receipt in the Revenue Fund. The Authority may in its discretion reverse or modify any pledge and designation of Dedicated Payments by a further resolution, and any determination to deposit Dedicated Payments in the Revenue Fund may be reversed or modified by written direction to the Trustee from an Authorized Officer, provided that such Authorized Officer shall certify to the Trustee that following such reversal or modification the Authority will meet the test for incurring one dollar of Additional Bonds as described in APPENDIX A – Summary of Definitions and the Indenture – Additional Bonds. See APPENDIX A – “Summary of Definitions and the Indenture – Dedicated Payments”.

## **THE RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY**

### **General Description and History**

*The Authority.* The Authority was created in 1954 by the Rhode Island General Assembly pursuant to the Authority Act, as a body corporate and politic, with powers to construct the Newport Bridge, renamed in 1992 as the Claiborne Pell Bridge (the “Claiborne Pell Bridge”), to construct the Turnpike (defined below), to acquire the Mount Hope Bridge in Bristol, Rhode Island (the “Mount Hope Bridge”), and to construct and acquire “additional facilities” thereafter authorized by law. The Turnpike, a controlled access highway extending from the Connecticut - Rhode Island border, through Washington and Newport counties, to the Massachusetts - Rhode Island border, was never constructed. Although the Authority has no plans to construct the Turnpike, it retains legislative authority to do so.

The Act was amended on June 25, 1997 to authorize the Authority to construct, reconstruct, renovate, acquire, maintain, repair, operate, or manage “additional facilities” including any feeder road, highway, road, freeway, tunnel, overpass or underpass, in the State, and equipment or information systems.

*Facility Description.* The Authority was responsible for the construction of the Claiborne Pell Bridge between Newport, Rhode Island and Jamestown, Rhode Island, which was opened for traffic on June 28, 1969. The Claiborne Pell Bridge is an 11,248 foot long structure, including a suspension bridge section over the main channel with a 1,600 foot long main span flanked by two side spans, each 687 feet, 9 inches in length. The bridge carries four lanes of vehicular traffic on Route 138 over the East Passage of Narragansett Bay between Jamestown on Conanicut Island, Rhode Island and Newport on Aquidneck Island, Rhode Island.

The Claiborne Pell Bridge crossing consists of steel multi-stringer spans, prestressed concrete beam spans, plate girder spans and deck truss spans flanking the suspension bridge section, which provides a vertical clearance of

205.8 feet above mean high water over the main navigation channel. The bridge superstructure is supported on reinforced concrete piers, abutments and anchorages, which are founded on caissons, piles or spread footings.

In addition to the Claiborne Pell Bridge, the Authority is also responsible for the operation and maintenance of the Mount Hope Bridge, an 81-year-old two-lane bridge spanning Mount Hope Bay and connecting Bristol, Rhode Island and Portsmouth, Rhode Island. The Mount Hope Bridge is a suspension bridge and consists of a main span of 1,200 feet and two side spans, each 504 feet in length. There are eleven viaduct spans on the north side totaling 1,020 feet and seventeen viaduct spans on the south side totaling 1,630 feet. The total length of the bridge is 4,858 feet from abutment to abutment.

### **Board of Directors**

The Authority is governed by a five (5) member Board of Directors (“Board”), including the Rhode Island Director of Transportation, who is a member ex-officio, and four (4) members appointed by the Governor. The members appointed by the Governor serve four (4) year terms, but any person appointed to fill a vacancy shall serve only for the unexpired term. Any member shall be eligible for reappointment. The following are brief resumes of the Board:

David A. Darlington, Chairman. Mr. Darlington is a partner in the public and government relations firm Gildea, O’Connell & Darlington, LLC. He has served in numerous executive and management positions in both the public and private sector, including the Office of the Governor in Rhode Island and Fortune 500 companies such as AT&T, Merrill Lynch, Verizon Communications, and 3M Corporation. Mr. Darlington was originally appointed to the Board by Governor Lincoln Almond and reappointed by Governor Donald Carcieri. His present term expires in April 2010.

Richard P. Eannarino, Vice Chairman. Mr. Eannarino serves as the chief executive officer of Guardian Bastille, LLC, in Smithfield, Rhode Island, which sells security blast-resistant films and energy products for windows. He is a member of the Board of Trustees of Bryant University, and is a former vice chairman and member of the Rhode Island Health & Education Building Corporation board of directors. Mr. Eannarino was appointed to the Board by Governor Donald Carcieri in 2008, and his present term expires in April 2011.

Arthur H. Fletcher, Member Prior to his retirement in 1999, Mr. Fletcher served as a Regional Program Manager with the National Highway Traffic Safety Administration of the U.S. Department of Transportation. During the final six years of his career he served as Chairman of the Region I Intermodal Safety Team, which focused on the Secretary of Transportation's high-profile projects and programs throughout New England. He was appointed to the Board by Governor Donald Carcieri in 2005, and his present term expires in April 2012.

Stephen C. Waluk, Member. Mr. Waluk, a Newport native, was first elected to the Newport City Council in 2001 and was sworn in as Mayor of Newport, Rhode Island in January 2007. He is presently the research and policy analyst for the Minority Office in the Rhode Island House of Representatives. Mr. Waluk was appointed to the Board by Governor Donald Carcieri. His present term expired in April 2009, and he continues to serve until his successor is qualified.

Michael P. Lewis, Director of Rhode Island Department of Transportation – Ex-Officio Member. Mr. Lewis was an engineer with the Massachusetts Highway Department from 1984 to 1992, when he moved to the Central Artery/Tunnel project. In 1999, he became a Deputy Project Director for the Big Dig project, responsible for engineering and construction and for reorganization of the project’s management and leadership. From April 2000 through December 2007, he was Director of the Big Dig project, part of the Massachusetts Turnpike Authority. In 2008, he was appointed as Director of the Rhode Island Department of Transportation by Governor Donald Carcieri.

### **Key Administrative Personnel**

Earl J. (Buddy) Croft, III, Executive Director. Mr. Croft has been the Executive Director of the Authority since July 2006. Prior to his appointment to the Authority, he held various positions at the Rhode Island Family

Court including 5 1/2 years as Chief of Staff. He held several management positions with the City of Cranston over many years. He graduated from Providence College in 1974 with a BA in Political Science.

Christine Callahan, Chief Financial Officer/Controller. Ms. Callahan became the Chief Financial Officer at the Authority in August 2006. She was the Executive Director at the Newport Art Museum prior to joining the staff at the Authority and was a State Representative for Newport, Middletown and Portsmouth for 18 years, serving on the House Finance Committee for 14 of those years. She is a graduate of the University of Rhode Island with a BS in accounting and an MBA.

Marianne Hillier, Director of Toll Plaza Operations. Mrs. Hillier began her career at the Authority in July 1978, as the Toll Audit Clerk. After 8 ½ years in the Finance Department she transferred to Operations as a full-time plaza supervisor and in 1998 became the Director of Toll Plaza Operations. She graduated from Central High School in Providence.

Peter Janaros, P.E., Director of Engineering. Mr. Janaros has been the Director of Engineering since July 2001. Prior to joining the Authority, he was the Rhode Island Department of Transportation Project Manager for the construction of the new Jamestown Bridge, T F Green Airport reconstruction, the Freight Rail Improvement Project and also served as its Chief of Staff. Before that he was the Division Chief for the Department of Environmental Management's Division of Land Resources. He also served in the US Air Force and The Rhode Island Air National Guard for more than 30 years, attaining the rank of Colonel as their Engineering Officer. He is a Registered Professional Engineer and graduated from the University of Rhode Island with a BS degree in Civil Engineering and from the University of Arkansas with a Masters in Civil Engineering.

### **Organizational Structure**

The Authority's employees are organized into three departments: Administration, Maintenance, and Operations. The Executive Director of the Authority reports to the Board of Directors, and the three department heads report to the Executive Director. The Authority has 26 full-time employees, 23 part-time employees and 15 casual employees. The Administration department consists of 7 full-time employees and 18 part-time employees. The Maintenance department consists of 4 full-time employees, and the Operations department consists of 15 full-time employees, 5 part-time employees and 15 casual employees. In addition, the Authority operates an E-ZPass Customer Service Center. The supervisor of the Customer Service Center is one of the full-time Administration employees. In addition, there are 2 full-time and 7 part-time temporary employees serving as customer service agents in the Customer Service Center.

### **Labor Relations and Employee Benefits**

On July 1, 2008, the Authority entered into a three-year labor relations contract with the United Service and Allied Workers of Rhode Island, representing approximately 4 Maintenance personnel and 20 Operations personnel. The Agreement expires on June 30, 2011.

The Authority sponsors an employee tax-deferred savings incentive 401(k) plan (the "Plan"), available to employees who meet the Plan's eligibility requirements. The Plan is a defined contribution plan. The investments held by the Plan are managed by John Hancock and the Plan is administered by Sentinel Benefits. Under the Plan, employees may contribute up to 5% of compensation and the Authority provides a matching contribution. The Authority may also make a supplemental contribution such that its total annual contribution does not exceed 10% of an employee's adjusted net compensation. The 10% limit includes the aggregate of the life insurance costs as well as the 401(k) contribution. The employees' contribution to the Plan for fiscal year 2009 was approximately \$115,000, while the total cost of the matching and supplemental employer contribution for fiscal year 2009 was approximately \$120,000. The payroll for employees covered by the Plan for fiscal year 2009 was approximately \$1,460,000 and the Authority's total payroll was approximately \$2,160,000. The trustees of the Plan are currently comprised of two members of the Authority's Board of Directors and one employee. The trustees are responsible for establishing or amending the Plan's provisions and contributions. The Board of Directors of the Authority must approve all amendments to the Plan as the employer sponsor of the Plan.

**THE CLAIBORNE PELL BRIDGE AND MOUNT HOPE BRIDGE**

**Contract Maintenance and Capital Projects**

*Renewal and Replacement.* As further described under the heading “PLAN OF FINANCE” herein, based on the findings and recommendations of Parsons, the Authority developed and identified certain maintenance and capital projects included in the Ten Year Plan. See APPENDIX D – “2009 Ten Year Renewal and Replacement Plan Narrative Summary”. The projects incorporated in the Ten Year Plan for the Claiborne Pell Bridge and the Mount Hope Bridge, including those projects prioritized for the Approved Years, are set forth in more detail below.

*The Claiborne Pell Bridge.* The capital improvements for the Claiborne Pell Bridge during the Approved Years are listed in the following table.

<b>CLAIBORNE PELL BRIDGE PROJECTS IN THE APPROVED YEARS 2009-2014</b>	
<b>Description of Projects <sup>(2)</sup></b>	<b>Cost of Projects <sup>(1)(3)</sup> (in Thousands)</b>
Superstructure painting and steel repairs (main spans and East approach spans)	\$84,000
West approach roadway asphalt rehabilitation	2,200
Fracture critical member and underwater inspections	2,500
Administration building and grounds rehabilitation	2,000
Miscellaneous Maintenance & Repairs	<u>3,000</u>
<b>TOTAL</b>	<b><u>\$93,700</u></b>

(1) All estimates are preliminary budget estimates based on available information and indicate the approximate magnitude of cost.  
 (2) The above listing is exclusive of recurring general maintenance of bridge and other facilities and annual inspection projects.  
 (3) The projected costs are in 2009 dollars and represent the cost dedicated to the projects during the Approved Years.

The capital improvements for the Claiborne Pell Bridge during the last five years of the Ten Year Plan are listed in the following table.

<b>CLAIBORNE PELL BRIDGE PROJECTS IN THE LAST FIVE YEARS 2015-2019</b>	
<b>Description of Projects <sup>(2)</sup></b>	<b>Cost of Projects <sup>(1)(3)</sup> (in Thousands)</b>
Superstructure painting and steel repairs (West approach spans)	\$27,000
Seismic vulnerability study and upgrade	16,000
Bridge deck slab partial depth rehabilitation and deck repairs	10,000
Main cable inspection and testing	3,600
Fracture critical member and underwater inspections	2,500
Median barrier installation	6,000
Miscellaneous Maintenance & Repairs	<u>3,000</u>
<b>TOTAL</b>	<b><u>\$68,100</u></b>

(1) All estimates are preliminary budget estimates based on available information and indicate the approximate magnitude of cost.  
 (2) The above listing is exclusive of recurring general maintenance of bridge and other facilities and annual inspection projects.  
 (3) The projected costs are in 2009 dollars and represent the cost dedicated to the projects during the Approved Years.

The Mount Hope Bridge The capital improvements for the Mount Hope Bridge during the Approved Years are listed in the following table.

<b>MOUNT HOPE BRIDGE PROJECTS IN THE APPROVED YEARS 2009-2014</b>	
<b>Description of Projects <sup>(2)</sup></b>	<b>Cost of Projects <sup>(1)(3)</sup> (in Thousands)</b>
Superstructure and cable bent painting and steel repairs	\$15,000
Tower pier and anchorage rehabilitation and scour remediation	5,000
Roadway deck rehabilitation	5,000
Fracture critical member and cable inspection	2,500
Miscellaneous Maintenance & Repairs	<u>2,500</u>
<b>TOTAL</b>	<b><u>\$30,000</u></b>

(1) All estimates are preliminary budget estimates based on available information and indicate the approximate magnitude of cost.  
(2) The above listing is exclusive of recurring general maintenance of bridge and other facilities and annual inspection projects.  
(3) The projected costs are in 2009 dollars and represent the cost dedicated to the projects during the Approved Years.

The capital improvements for the Mount Hope Bridge during the last five years of the Ten Year Plan are listed in the following table.

<b>MOUNT HOPE BRIDGE PROJECTS IN THE LAST FIVE YEARS 2015-2019</b>	
<b>Description of Projects <sup>(2)</sup></b>	<b>Cost of Projects <sup>(1)(3)</sup> (in Thousands)</b>
Seismic vulnerability study and upgrade	\$12,000
Superstructure painting and steel repairs	4,000
Miscellaneous Maintenance & Repairs	<u>2,000</u>
<b>TOTAL</b>	<b><u>\$18,000</u></b>

(1) All estimates are preliminary budget estimates based on available information and indicate the approximate magnitude of cost.  
(2) The above listing is exclusive of recurring general maintenance of bridge and other facilities and annual inspection projects.  
(3) The projected costs are in 2009 dollars and represent the cost dedicated to the projects during the Approved Years.

The estimated total cost presented in the tables above reflects the Authority's current expectations regarding costs but does not necessarily represent an expectation of actual cash expenditures for the projects set forth. The recommended maintenance and capital projects set forth for each of the Claiborne Pell Bridge and Mount Hope Bridge in the tables above address significant repair and rehabilitation issues raised by Parsons, reflect current industry standards and upgrade requirements to maintain the two bridges in generally good condition.

The following table breaks out the forecasted Renewal and Replacement expenses (in thousands) by bridge for the Approved Years of the Plan. Jacobs reviewed these forecasts, as well as the forecasts for the remaining five years, and found them to be reasonable.

<b>FORECASTED RENEWAL AND REPLACEMENT EXPENSES</b>			
<b>(in thousands)</b>			
<b>Fiscal Year</b>	<b>Claiborne Pell Bridge</b>	<b>Mount Hope Bridge</b>	<b>Total</b>
2010	\$10,885	\$5,816	\$16,701
2011	20,630	7,245	27,875
2012	22,630	3,696	26,326
2013	20,590	2,278	22,868
2014	<u>19,215</u>	<u>11,011</u>	<u>30,226</u>
Total	<u>\$93,950</u>	<u>\$30,046</u>	<u>\$123,996</u>

The Authority has determined its capital investment priorities based upon the recommendation set forth in the tables above. The above list of recommendations will be subject to annual review and adjustment by the Authority. The Authority expects to finance these improvements primarily from the Renewal and Replacement Fund. As of December 31, 2009 there was \$18,852,024 on deposit in the Renewal and Replacement Fund. The Authority may issue Additional Bonds for any remaining funds needed. See “SECURITY AND SOURCE OF PAYMENT FOR THE SERIES 2010 A BONDS – Additional Bonds, Completion Bonds and Refunding Bonds”. The timing and estimated cost of the maintenance and work set forth in each of the above tables are subject to change due to a variety of factors, including the availability of funding under the limitation imposed by the tolls covenant contained in the Indenture. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2010 A BONDS - Tolls, Fees and Charges”. Under the Indenture, the Renewal and Replacement Fund Requirement is to be established by the Authority and funded from Net Revenues for any Fiscal Year based upon the annual recommendations of the Consulting Engineers. The Authority’s ability to meet the Renewal and Replacement Fund Requirement in each Fiscal Year under the Indenture will be dependent upon the availability of sufficient Net Revenues. The Authority is obligated under the Indenture to maintain Net Revenues at a level that will produce Revenues sufficient in each Fiscal Year to, among other things, satisfy the Renewal and Replacement Fund Requirement. See “Historical Revenues, Expenditures and Debt Service Coverage” below and “SECURITY AND SOURCES OF PAYMENT OF THE SERIES 2010 A BONDS – Tolls, Fees and Charges”.

*Bridge Protection and Security Measures.* In the wake of the September 11, 2001 terrorist attacks, the Authority has taken a number of measures to enhance security for its two bridges with a special emphasis on bolstering security for the Claiborne Pell Bridge. The Claiborne Pell Bridge has been the focus of additional security precautions for several reasons. These include the bridge’s status as the only deep water entry into Narragansett Bay and its proximity to the U.S. Naval War College and the Quonset Davisville Port & Business Park. In addition, there are many shipments of heating oil and natural gas bound for the Port of Providence that travel under the bridge.

The Authority has provided special training to law enforcement personnel regarding techniques to properly scale and rappel from both the Claiborne Pell Bridge and Mount Hope Bridge in either rescue or law enforcement circumstances. During Fiscal Year 2009, the Authority continued its preventive maintenance programs for both the Claiborne Pell and Mount Hope bridges, which are designed to ensure, among other things, the safety and security of the structures. As part of this effort, a number of the Authority’s staff have been assigned additional duties including security details, especially during high alert periods.

**Recent and Historical Toll Transactions and Toll Revenues**

The Authority has entered into a contract with Jacobs Engineering Group (“Jacobs”) pursuant to which Jacobs conducted an investment-grade study of traffic and toll revenue on the Claiborne Pell Bridge. The results of the study are contained in the report attached hereto as APPENDIX C – “Claiborne Pell Bridge Traffic and Revenue Study”. This section was prepared, in part, on the basis of the information in APPENDIX C.

*Toll Rate History and Current Toll Rates.* The Claiborne Pell Bridge had no toll increases for nearly 40 years after tolling began in 1970. Prior to December 16, 2008, the toll for two-axle passenger cars was \$2.00 if paid in cash. Tokens could be purchased in bulk at the rate of \$10.00 for 11 tokens (\$0.91 each) and \$50.00 for 60 tokens (\$0.83 each). Trucks and all vehicles of three or more axles paid a toll of \$1.00 per axle.

On December 16, 2008, the Authority became a member of the E-ZPass Interagency Group (IAG). E-ZPass is the electronic toll collection system used at many toll facilities throughout the northeastern United States. Equipment installed on the Claiborne Pell Bridge permits motorists that have E-ZPass transponders to use those transponders to electronically pay tolls on the Claiborne Pell Bridge and on other highways and bridges that are part of the E-ZPass system. In addition to Rhode Island, E-ZPass is currently in use on the toll facilities in the following states: Delaware, Illinois, Indiana, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Virginia and West Virginia. In addition, the Chicago Skyway is part of the E-ZPass system.

The initial E-ZPass rates instituted on December 16, 2008 by the Authority were as follows: (a) passenger cars with a Rhode Island-originated E-ZPass (“Home E-ZPass”) transponder who demonstrated Rhode Island residency paid a toll rate of \$0.83 (“E-ZPass Resident”); (b) passenger cars with a Home E-ZPass transponder who did not demonstrate Rhode Island residency paid a toll rate of \$1.75, but received an \$0.84 per trip rebate when they made 31 trips in a 30-day period, resulting in a per trip toll of \$0.91 after the rebate (“E-ZPass Commuter”); (c) passenger cars with Home E-ZPass transponders that qualified as neither an E-ZPass Resident or an E-ZPass Commuter paid a toll rate of \$1.75 (“Standard E-ZPass”); (d) passenger cars with non-Rhode Island-originated E-ZPass transponders paid a toll rate of \$1.75 (“Away E-ZPass”). The rate for tolls paid in cash remained \$2.00, as did the rates for trucks and vehicles with three or more axles. The Authority eliminated tokens as a form of toll payment on February 1, 2009.

On September 8, 2009, the Authority adopted the current toll schedule, raising tolls for certain categories of users. The tolls rate for Away E-ZPass vehicles increased from \$1.75 to \$4.00. The cash toll rate for passenger vehicles increased from \$2.00 to \$4.00. The tolls rate for trucks and vehicles with three or more axles increased from \$1.00 per axle to \$2.00 per axle. The toll rate for E-ZPass Resident vehicles (\$0.83) and E-ZPass Commuter vehicles (\$0.91) remained the same. In addition, in October 2009 the requirement for the frequency rebate under the E-ZPass Commuter plan was reduced to 26 one-way trips in a 30-day period.

The following table summarizes the history of the Claiborne Pell Bridge toll rates.

Vehicle Type / Payment Type		Old Toll Rate before Dec 16, 2008	Old Toll Rate Dec 16, 2008-Sept 7, 2009	New Toll Rate as of Sept 8, 2009
2-Axle Passenger Cars	Cash	\$2.00	\$2.00	\$4.00
	Token	\$0.90 <sup>1</sup>	N/A <sup>2</sup>	N/A
	Non RI-Issued E-ZPass	N/A	\$1.75	\$4.00
	RI-Issued Standard E-ZPass <sup>3</sup>		\$1.75	\$4.00
	RI-Issued Commuter Plan E-ZPass		\$0.91 <sup>4</sup>	\$0.91 <sup>5</sup>
RI-Issued Resident Plan E-ZPass <sup>6</sup>	\$0.83		\$0.83	
Trucks and Other 3+ Axle Vehicles	Price PER AXLE (Any Payment Method)	\$1.00	\$1.00	\$2.00

<sup>1</sup> Average token price; tokens cost \$1.00 for one, \$10 for 11, and \$50 for 60.

<sup>2</sup> Tokens were eliminated as a payment form on February 1, 2009

<sup>3</sup> Customers lacking residency status or not able to meet frequency requirements of the Commuter Plan.

<sup>4</sup> Commuter Plan customers pay \$1.75/trip, but receive a \$0.85/trip rebate when they make 31 trips in a 30-day period

<sup>5</sup> Commuter Plan customers pay \$4.00/trip, but receive a \$3.17/trip rebate when they make 31 trips in a 30-day period. In October 2009, the required number of trips for rebate was reduced to 26.

<sup>6</sup> Must produce proof of RI residency

In December, 2009 the Authority’s Board approved two new commuter plans, a “low frequency plan” and a “high frequency plan”, both of which took effect on February 15, 2010. The “low frequency plan” requires at least 6 trips per 30-day period to get the full discount. For a prepaid price of \$5.46, participating customers who travel 6 times within 30 days would in essence be paying  $\$5.46/6 = \$0.91$  per trip. Participants who cross the bridge only twice in 30 days would also be charged \$5.46 ( $\$5.46/2 = \$2.73/\text{trip}$ ), however, this is still an advantage over the current \$4.00 toll per trip without a discount plan. After the sixth trip or the 30th day – whichever comes first – the cycle will restart, with another \$5.46 charged upfront to their account, with 30 days to make another 6 trips. The “high frequency plan” requires prepayment of \$40.00 and covers an unlimited number of trips within a 30 day period. The following table summarizes the Claiborne Pell Bridge toll rates as of February 15, 2010.

Vehicle Type / Payment Type		Toll Rates as of Feb. 15, 2010
2-Axle Passenger Cars	Cash	\$4.00
	Non RI-Issued E-ZPass	\$4.00
	RI-Issued Standard E-ZPass <sup>1</sup>	\$4.00
	RI-Issued Commuter Plan E-ZPass <sup>2</sup>	N/A
	RI-Issued Resident Plan E-ZPass <sup>3</sup>	\$0.83
	NEW High Frequency 30-Day Unlimited <sup>4</sup>	\$40 unlimited
	NEW Low Frequency 6 trip/30 Days <sup>5</sup>	\$5.46 / 6 trips
Trucks and Other 3+ Axle Vehicles	Price PER AXLE (Any Payment Method)	\$2.00

<sup>1</sup> Customers lacking residency status or not participating in any of the new commuter plans

<sup>2</sup> \$0.91 Commuter Rebate Plan to be discontinued as of 2/15/10

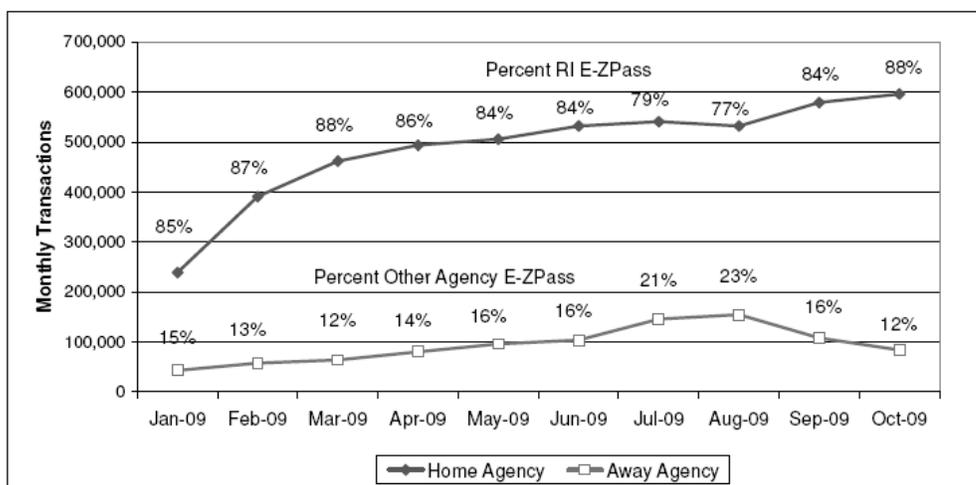
<sup>3</sup> Must produce proof of RI residency

<sup>4</sup> Plan begins February 15, 2010. \$40 covers unlimited trips in a 30-day period. Must have RI-Issued E-ZPass.

<sup>5</sup> Plan begins February 15, 2010. \$5.46 covers up to 6 trips in a 30-day period. Once the customer makes the 6 trips, or the 31st day is reached, the customer is charged a new \$5.46. Must have RI-Issued E-ZPass.

*E-Z Pass Trends.* The E-ZPass system was installed at the Claiborne Pell Bridge on December 16, 2008. The number of Home E-ZPass transponders in circulation has grown steadily since installation of the E-ZPass system in late 2008. As of the end of November 2009, nearly 80,000 Home E-ZPass transponders were in circulation. The number of transactions at the Claiborne Pell Bridge made by Home E-ZPass transponders versus Away E-ZPass transponders is shown in the table below. In January 2009, the first month after E-ZPass began at the Claiborne Pell Bridge, there were nearly 250,000 transactions made by Home E-ZPass transponders versus nearly 50,000 transactions made by Away E-ZPass transponders. Home E-ZPass transactions grew sharply to 400,000 in February. During the peak summer months, Home E-ZPass transactions grew to approximately 550,000 compared to approximately 150,000 Away E-ZPass transactions. The increase in Home E-ZPass transactions in September to 580,000 and in October to 600,000 signifies that the September 8, 2009 toll increase may have caused some qualified individuals to switch to E-ZPass Resident or E-ZPass Commuter plans to avoid the higher tolls they would otherwise pay.

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*Historical Traffic Trends.* For many years since tolling began in 1970, toll transactions on the Claiborne Pell Bridge increased steadily. There was some flattening of traffic in 1991 and 1992 due to construction on the old Jamestown Bridge and Route 1A on the mainland, both which lead to the Claiborne Pell Bridge. Traffic growth resumed as repairs were completed and the new, wider Jamestown Bridge opened in 1993. In recent years there has been a slow decline in traffic, attributable to high gas prices, economic recession, and other factors that have similarly affected the nationwide vehicle-miles traveled. Also of note is the unprecedented flattening of traffic that predates the current recession, starting in 2005. A similar flattening trend has also been seen in the nationwide vehicle-miles traveled.

The Authority divides traffic in its financial statements into three types: two-axle cash (which includes both cars and two-axle trucks), two-axle E-ZPass (formerly token), and “all other” which includes all vehicles with three or more axles regardless of payment type. The Authority’s toll schedule provides for six classes of vehicles, two-axle commuter and full fare vehicles, plus two-, three-, four- and five-axle trucks, buses and combination vehicles. The following tables depict the number of transactions and revenue by vehicle category and total toll revenues for the Fiscal Years shown.

<b>TRAFFIC COUNT BY VEHICLE CLASS</b>					
<b>(number of passages by Fiscal Year)</b>					
	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u> <sup>(1) (2)</sup>
Two-axle vehicle fares paid with tickets, tokens or E-ZPass	8,151,796	8,042,235	7,995,770	7,948,571	7,333,433
Two-axle vehicle fares paid with cash	2,090,215	2,063,529	2,091,046	2,081,389	2,620,377
All Other	<u>156,992</u>	<u>160,263</u>	<u>151,090</u>	<u>154,105</u>	<u>N/A</u>
<b>Total Traffic Count</b>	<u>10,399,003</u>	<u>10,266,027</u>	<u>10,237,906</u>	<u>10,184,065</u>	<u>9,953,810</u>

**Source:** Director of Finance, Authority

<sup>(1)</sup> As of 2009, the Authority includes the “all other” type of traffic in the “Two-axle vehicle fares paid with tickets, tokens or E-ZPass” if fares are paid with E-ZPass and the “Two-axle vehicle fares paid with cash” if fares are paid with cash.

<sup>(2)</sup> The 2009 numbers listed in Tables 2, 4, 6, 35, and 41 of the Claiborne Pell Bridge Traffic and Revenue Study attached hereto as APPENDIX C reflect the unaudited numbers provided by the Authority and not the audited numbers listed above.

<b>TOLL REVENUES BY VEHICLE CLASS</b>					
<b>(by Fiscal Year)</b>					
	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009<sup>(1) (2)</sup></u>
Two-axle vehicle fares paid with tickets, tokens or E-ZPass	\$7,336,614	\$7,237,992	\$7,196,248	\$7,153,714	\$7,305,748
Two-axle vehicle fares paid with cash (at \$2 per passage)	\$4,180,430	\$4,127,058	\$4,182,092	\$4,160,708	\$5,240,754
All Other	<u>\$545,890</u>	<u>\$594,887</u>	<u>\$594,995</u>	<u>\$578,129</u>	N/A
	<u>\$12,062,934</u>	<u>\$11,959,937</u>	<u>\$11,973,335</u>	<u>\$11,892,551</u>	<u>\$12,546,502</u>
Add adjustment of liability for unredeemed toll coupons and tokens	<u>\$230,127</u>	<u>\$125,191</u>	<u>\$122,087</u>	<u>\$147,472</u>	<u>\$0<sup>(3)</sup></u>
<b>Total Revenue</b>	<u>\$12,293,061</u>	<u>\$12,085,128</u>	<u>\$12,095,422</u>	<u>\$12,040,023</u>	<u>\$12,546,502</u>

**Source:** Director of Finance, Authority

<sup>(1)</sup>As of 2009, the Authority includes the “all other” type of traffic in the “Two-axle vehicle fares paid with tickets, tokens or E-ZPass” if fares are paid with E-ZPass and the “Two-axle vehicle fares paid with cash” if fares are paid with cash.

<sup>(2)</sup> The 2009 numbers listed in Tables 2, 4, 6, 35, and 41 of the Claiborne Pell Bridge Traffic and Revenue Study attached hereto as APPENDIX C reflect the unaudited numbers provided by the Authority and not the audited numbers listed above.

<sup>(3)</sup>As of 2009, the Authority no longer accepts tokens.

### Financial Information Discussion

The Authority’s total net assets increased from 2008 to 2009 by \$2.1 million, or 2.3%, which consisted of a decrease in total assets of \$1.3 million and a decrease in total liabilities of \$3.4 million. The decrease in total assets was due to the conversion of investment funds in the Renewal and Replacement Fund account to cash used to fund capital projects. The decrease in total liabilities was due to a decrease in bonds payable and the elimination of an environmental remediation liability. With the conversion to electronic toll collection, a redemption program for unused tokens was initiated. Over the five year period from 2005 to 2009, the Authority’s total net assets increased by \$17,696,053, or 24.4%. In Fiscal Year 2009, the Authority realized a \$2.4 million increase in capital assets attributable to projects underway as part of the Authority’s ongoing capital improvement program, net of \$3.4 million in depreciation.

As of June 30, 2009, 24.4% of the Authority’s assets consisted of cash, cash equivalents and investments totaling \$28.8 million. Cash and cash equivalents comprised 8.5% of the Authority’s total assets, or \$10 million. Investments comprised 15.9% of the Authority’s total assets, or \$18.8 million. A substantial majority of the Authority’s investments (64%) are in the form of U.S. Treasury/Agency obligations, most of which have stated maturities between 2010 and 2014. Approximately 16% of the Authority’s investments are in corporate bonds.

Operating (toll) revenues from the Claiborne Pell Bridge increased from 2008 to 2009 by approximately \$500,000 or 4.2% even though traffic on the Claiborne Pell Bridge decreased in 2009 by 2.3% during the same period. Over the five year period from 2005 to 2009, toll revenues from the Claiborne Pell Bridge increased by \$253,441, or 2%.

The Authority incurred significant expenses in Fiscal Year 2009 in connection with the set-up and implementation of the E-ZPass system. The customer service set-up, transaction processing charges and other toll

collection expenses totaled approximately \$747,000 of the Authority's total \$8,219,636 in expenses during Fiscal Year 2009 (depreciation not included). There was also a 33% increase in personnel costs in Fiscal Year 2009 related to staffing the Authority's customer service center and monitoring lanes in the toll plaza. By selling transponders below cost to encourage enrollment in the E-ZPass system, the Authority incurred a net operating expense of approximately \$548,000 in Fiscal Year 2009. The costs incurred in environmental remediation projects were significantly less than estimated, resulting in a \$491,000 increase in net assets from Fiscal Year 2008 to Fiscal Year 2009.

### Historical Revenues, Expenditures and Debt Service Coverage

*Historical Revenues and Expenditures.* Set forth below are (i) a statement of the Authority's financial operations as summarized, for 2005-2009, from the Authority's audited financial statements for the Fiscal Years ended June 30, 2005 through June 30, 2009 and (ii) calculations by the Authority imputing Net Revenues pursuant to the Indenture.

<b>HISTORICAL REVENUES &amp; EXPENDITURES</b>					
<b>Fiscal Year</b>	<b><u>2005</u></b>	<b><u>2006</u></b>	<b><u>2007</u></b>	<b><u>2008</u></b>	<b><u>2009</u></b>
<b>Revenues:</b>					
Tolls & Transponders	\$12,293,061	\$12,085,128	\$12,095,422	\$12,040,023	\$13,288,655
Investment Income <sup>(1)</sup>	\$2,513,455	\$360,343	\$2,274,100	\$2,335,425	\$1,502,012
Other income	<u>\$32,084</u>	<u>\$23,473</u>	<u>\$6,340</u>	<u>\$28,215</u>	<u>\$94,096</u>
<b>TOTAL GROSS REVENUES</b>	<b><u>\$14,838,600</u></b>	<b><u>\$12,468,944</u></b>	<b><u>\$14,375,862</u></b>	<b><u>\$14,403,663</u></b>	<b><u>\$14,884,763</u></b>
<b>Operating Expenses<sup>(2)</sup></b>					
Personnel services	\$1,770,613	\$1,671,395	\$1,946,597	\$1,918,103	\$2,547,860
Utilities	\$105,329	\$127,065	\$125,852	\$132,483	\$148,406
Contractual services	\$1,223,266	\$891,443	\$292,701	\$275,531	\$1,138,424
Other Supplies and expenses	\$263,354	\$239,417	\$148,939	\$91,177	\$198,199
Insurance	\$1,185,302	\$991,309	\$1,463,580	\$1,281,111	\$1,253,495
Operating & Maintenance of System	\$162,876	\$128,316	\$396,084	\$399,427	\$452,618
Transponders	-	-	-	-	\$1,290,275
Environmental remediation	-	-	-	\$400,000	(491,470)
Bridge Renewal and Replacement	\$51,814	\$376,182	\$353,444	\$187,557	\$1,641,392
General Fund Repairs and Maintenance	-	-	\$354,126	\$153,832	\$40,437
Depreciation	<u>\$1,571,709</u>	<u>\$1,640,927</u>	<u>\$2,043,845</u>	<u>\$2,398,583</u>	<u>\$3,418,857</u>
<b>TOTAL OPERATING EXPENSES</b>	<b><u>\$6,334,263</u></b>	<b><u>\$6,066,054</u></b>	<b><u>\$7,125,168</u></b>	<b><u>\$7,237,804</u></b>	<b><u>\$11,638,493</u></b>

**Source:** Chief Financial Officer/Controller, Authority.

Information in the table above is presented using the accrual basis of accounting.

(1) Represents interest income on the Revenue Fund, Operation and Maintenance Fund, Renewal and Replacement Fund,

(2) The total operating expenditures listed in Table 45 of the Claiborne Pell Bridge Traffic and Revenue Study attached hereto as APPENDIX C exclude from operating expenditures expenses associated with Environmental Remediation, Transponders, General Fund Repairs and Maintenance and Bridge Renewal and Replacement which are included in Operating Expenses reflected in this table.

Historical Debt Service Coverage. The following table sets forth Debt Service Coverage for selected years since 2005.

<b>HISTORICAL DEBT SERVICE COVERAGE</b>					
<b>Fiscal Year</b>	<b><u>2005</u></b>	<b><u>2006</u></b>	<b><u>2007</u></b>	<b><u>2008</u></b>	<b><u>2009</u></b>
Toll Revenues <sup>(1)</sup>	\$12,293,061	\$12,085,128	\$12,095,422	\$12,040,023	\$13,288,655
PLUS: Interest Earnings	2,513,455	360,343	2,274,100	2,335,425	1,502,012
LESS: Earnings on Debt Service Funds <sup>(2)</sup>	(285,829)	(239,687)	(286,250)	(297,349)	(260,056)
PLUS: Miscellaneous Income	32,084	23,473	6,340	28,215	94,096
LESS: Operating Expenditures <sup>(3)</sup>	(6,334,263)	(6,066,054)	(7,125,168)	(7,237,804)	(11,638,493)
PLUS: Depreciation	1,571,709	1,640,927	2,043,845	2,398,583	3,418,857
LESS: O&M Reserve Fund Deposit	(32,000)	(20,000)	-	-	-
<b>Net Revenues</b>	<b>\$9,758,217</b>	<b>\$7,784,130</b>	<b>\$9,008,289</b>	<b>\$9,267,093</b>	<b>\$6,405,071</b>
<b>Net Debt Service<sup>(4)</sup></b>	<b>\$3,001,042</b>	<b>\$3,073,934</b>	<b>\$2,987,192</b>	<b>\$2,977,962</b>	<b>\$3,015,009</b>
<b>Coverage<sup>(5)</sup></b>	<b>3.25x</b>	<b>2.53x</b>	<b>3.02x</b>	<b>3.11x</b>	<b>2.12x</b>

Source: Audited Financial Statements of the Authority, Chief Financial Officer/Controller, Authority.

(1) Includes transponder revenue in FY 2009

(2) Includes interested earned (net of trustee fees) on principal fund, interest fund, cost of issuance fund and debt service reserve fund

(3) The total operating expenditures listed in Table 45 of the Claiborne Pell Bridge Traffic and Revenue Study attached hereto as APPENDIX C exclude from operating expenditures all expenses associated with Environmental Remediation, Transponders, General Fund Repairs and Maintenance and Bridge Renewal and Replacement which expenses are included in the Operating Expenses reflected in this table.

(4) Gross debt service payment less interest earnings on debt service funds

(5) Calculation defined by Indenture and is equal to Net Revenues divided by Net Debt Service

The decrease in Net Revenues in Fiscal Year 2009 is largely the result of increases in Operating Expenses including \$1.29 million in expenses incurred in connection with the installation of EZPass and sale of transponders at below cost as noted in the section entitled “THE CLAIBORNE PELL BRIDGE AND MOUNT HOPE BRIDGE - Financial Information Discussion” and \$2.95 million in additional expenses associated with personnel services related to the establishment of a customer service and call center in connection with the implementation of EZPass, contract services related to a third party contract for the servicing and accounting in connection with EZPass, and costs for preparation of the Claiborne Pell Traffic and Revenue Study, fiscal integrity and preparedness studies, and repairs and replacements to the System during Fiscal Year 2009.

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## Projected Revenues, Operating Expenses, Net Revenues and Debt Service Coverage

The following table sets forth projected Revenues, Operating Expenses, Net Revenues and Debt Service Coverage through June 30, 2025.

Fiscal Year	Gross Revenues <sup>(1)</sup>	Operating Maintenance & Admin <sup>(2)</sup>	Net Revenues <sup>(3)</sup>	Total Debt Service <sup>(4)</sup>	Coverage	Revenues after Debt Svc
6/30/2010	16,926,836	(6,290,325)	10,636,511	3,269,447	3.25x	7,367,065
6/30/2011	18,004,271	(6,405,463)	11,598,808	6,007,246	1.93x	5,591,562
6/30/2012	18,140,999	(6,553,332)	11,587,667	7,052,580	1.64x	4,535,088
6/30/2013	20,303,504	(6,421,180)	13,882,324	8,443,837	1.64x	5,438,488
6/30/2014	21,017,099	(6,537,455)	14,479,643	8,441,873	1.72x	6,037,770
6/30/2015	21,259,396	(6,735,305)	14,524,090	8,436,359	1.72x	6,087,732
6/30/2016	23,801,448	(6,867,760)	16,933,688	8,431,671	2.01x	8,502,017
6/30/2017	24,665,922	(7,012,440)	17,653,482	8,431,911	2.09x	9,221,572
6/30/2018	24,927,833	(7,249,081)	17,678,753	8,421,878	2.10x	9,256,875
6/30/2019	27,531,386	(7,436,432)	20,094,954	7,763,588	2.59x	12,331,367
6/30/2020	28,443,064	(7,636,651)	20,806,413	7,763,800	2.68x	13,042,613
6/30/2021	28,726,105	(7,844,994)	20,881,111	7,762,300	2.69x	13,118,811
6/30/2022	30,100,802	(8,058,194)	22,042,608	7,766,400	2.84x	14,276,208
6/30/2023	30,781,556	(8,274,111)	22,507,446	7,764,425	2.90x	14,743,021
6/30/2024	31,025,082	(8,498,783)	22,526,299	7,767,597	2.90x	14,758,702
6/30/2025	33,683,767	(8,719,323)	24,964,444	7,766,194	3.21x	17,198,250
Totals	399,339,070	(116,540,829)	282,798,241	121,291,103		161,507,138

<sup>(1)</sup>Source: Jacobs.

<sup>(2)</sup>Source: Jacobs and the Authority.

<sup>(3)</sup>Source: Jacobs.

<sup>(4)</sup>Source: First Southwest Company. Includes debt service on \$55,175,000 in Additional Bonds which may be issued in 2011 to fund additional costs of the projects during the Approved Years of the Ten Year Plan. See "PLAN OF FINANCE". Projected Debt Service continues through 2041.

## MODIFICATIONS TO THE MASTER INDENTURE

The Master Indenture provides for certain amendments which will take effect after the date thereof upon: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent thereto from the required percentage of Holders of Bonds then Outstanding, as determined pursuant to the Master Indenture; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such provisions will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis). See the defined terms "Debt Service Reserve Fund Requirement," "Maximum Annual Debt Service" and "Net Debt Service" and the provisions set forth under the headings "Additional Bonds," "Refunding Bonds," "Covenants as to Tolls, Etc.," "Covenant Against Sale or Encumbrance; Exceptions" and "Addition of Non-System Projects to the System" in APPENDIX A – "Summary of Definitions and the Indenture" herein.

**The Holders of the Series 2010 A Bonds, by their purchase thereof, are deemed to have consented to such amendments.** Therefore, the Series 2010 A Bondholders will not be included in calculating the required percentage of Outstanding Bondholders needed for consent as provided in subsection (A)(ii) above.

## LITIGATION

Other than as set forth below, there is no litigation pending or, to the knowledge of the Authority, threatened in any court, (i) questioning the existence or organization of the Authority, the title of any of the present officers thereof to their respective offices, or the validity of the Series 2010 A Bonds or any other Authority bonds, or seeking to restrain or enjoin the issuance or delivery of the Series 2010 A Bonds or any other Authority bonds, or questioning the power of the Authority to pledge Net Revenues in accordance with the terms of the Indenture or (ii) questioning the power of the Authority to collect tolls, fees, charges and rents or receive other Revenues or questioning the Authority's other powers that in either case would have a material adverse effect on the financial condition of the Authority or the issuance of the Series 2010 A Bonds.

On March 27, 2009, the Authority was named as the defendant in a putative class action civil lawsuit filed in the United States District Court for the District of Rhode Island captioned Isabel S. Cohen v. Rhode Island Turnpike and Bridge Authority (CA 09-153). Plaintiffs in the Cohen suit allege that the Authority's resident discount program implemented on December 16, 2008 whereby Rhode Island-resident E-ZPass users paid a toll rate of \$0.83 and non-resident E-ZPass users not using the commuter plan paid a toll of \$1.75 was impermissible under the United States Constitution. The Cohen suit does not challenge any other aspect of the Authority's toll system and implicates only tolls for Class 1 vehicles using non-resident E-ZPass transponders since December 16, 2008. The suit seeks a judicial declaration that the different treatment of residents and non-residents is unconstitutional, a refund to non-residents of the allegedly unconstitutional toll increment, and other related costs. The Court has not ruled on whether a class should be certified. The Authority has denied the substantive allegations in the Cohen complaint and will vigorously contest the lawsuit.

Several employment-related lawsuits have been filed and are currently pending against the Authority. The Authority, after taking into consideration legal counsel's evaluation of such actions, is of the opinion that the outcome of these matters will have no material adverse effect on the financial condition of the Authority. The Authority has insurance coverage for certain risks, including commercial general liability and property damage. Each of these insurance coverages is subject to a self-insured retention and deductibles. These self-insured retentions and deductibles range from zero to \$10,000,000, depending on the type of coverage.

## BONDHOLDER CONSIDERATIONS

Purchase of the Series 2010 A Bonds involves a degree of risk. Potential investors should be thoroughly familiar with this entire Official Statement (including the appendices hereto) in order to make a judgment as to whether the Series 2010 A Bonds are an appropriate investment, to identify risk factors and to make an informed investment decision. The discussion herein of risks that could affect payment to be made by the Authority with respect to the Series 2010 A Bonds is not intended to be comprehensive or definitive, but rather is to summarize certain matters which could affect the ability of the Authority to make such payments. For a more detailed description of risk factors affecting operation of the Claiborne Pell Bridge and impact on Net Revenues see APPENDIX C – "Claiborne Pell Bridge Traffic and Revenue Study". The Authority carries loss of revenue insurance, with certain restrictions and conditions, in the amount of \$33,000,000 per occurrence and contingent loss of revenue insurance, with certain restrictions and conditions, in the amount of \$11,000,000 per occurrence both of which could be used to mitigate certain risks impacting the collection of Net Revenues, including certain of the risks identified herein.

### **Operating Risks**

The Net Revenues securing the Series 2010 A Bonds issued under the Indenture are comprised primarily of the Authority's toll revenues, and the ability to achieve Net Revenues is primarily dependent on the level of traffic that utilizes the Claiborne Pell Bridge. The information regarding forecasts of future traffic and revenues of the Claiborne Pell Bridge and tollway system contained in APPENDIX C – "Claiborne Pell Bridge Traffic and Revenue Study" are based on assumptions made by the Traffic Engineer concerning future events. The Traffic Engineer performed studies and collected data and based its estimates and opinions upon such investigations. If the traffic levels are below projections, the Authority may need to raise toll rates and such action may or may not have the effect of raising Net Revenues. If the traffic counts are substantially below the projections of the Traffic Engineer, the Authority may not have sufficient funds to pay all debt service on the Bonds.

In addition to events effecting the Claiborne Pell Bridge and tollway system, damage to the roads or bridges leading to the Claiborne Pell Bridge, including the Jamestown Bridge in Jamestown, Rhode Island, may result in a decrease in the level of traffic utilizing the Claiborne Pell Bridge.

### **Force Majeure Events**

The Claiborne Pell Bridge and tollway system is susceptible to severe weather conditions, including hurricanes. Even though it is designed to withstand hurricane-force winds, a severe hurricane striking the coast of Rhode Island may cause damage to or destruction of the Claiborne Pell Bridge. In such event, the Claiborne Pell Bridge may be closed for period of time for reconstruction and repairs. The ability of the Authority to collect tolls would be adversely affected during the period of reconstruction. In addition, severe weather conditions, including hurricanes, could have an adverse impact on the local economy and, consequently, traffic using the Claiborne Pell Bridge.

Operation of the Claiborne Pell Bridge and collection of tolls is also at risk from events of force majeure, such as floods, fires and explosions, spills of hazardous substances, sabotage, wars, blockades and riots. The Authority cannot predict the potential impact of such events on the financial condition of the Authority or on the Authority's ability to pay the principal of and interest on the 2010 Series A Bonds as and when due.

### **Threats and Acts of Terrorism**

The Authority and law enforcement have undertaken security measures in an effort to reduce the probability that the Claiborne Pell Bridge could be attacked by terrorists; however, such measures are not guaranteed to prevent an attack. The Authority cannot predict the likelihood of a terrorist attack on any of the Claiborne Pell Bridge or the extent of damage or vehicle traffic disruption that might result from an attack.

### **Future Economic Conditions**

Increased unemployment, rising gas and oil prices or other adverse economic changes in demographics in the State or surrounding areas could impact the amount of traffic over the Claiborne Pell Bridge and cause a corresponding decrease in Net Revenues.

### **Default and Remedies**

The Master Indenture does not provide for acceleration of the Series 2010 A Bonds if an Event of Default occurs. The rights of the Beneficial Owners of the Series 2010 A Bonds and the enforceability of the Series 2010 A Bonds may be subject to bankruptcy, insolvency, reorganization, moratorium, and other similar laws affecting creditors' rights generally, and by equitable principles, whether considered at law or in equity.

### **Optional Redemption Prior to Maturity**

The Series 2010 A Bonds maturing on or after December 1, 2021 are subject to optional redemption prior to maturity on and after December 1, 2020. See "THE SERIES 2010 A BONDS – Redemption Provisions." Beneficial Owners may not realize their anticipated yield on investment to maturity because the Series 2010 A Bonds may be redeemed prior to maturity at par which results in the realization of less than the anticipated yield to maturity.

### **Event of Taxability**

If the Authority does not comply with certain covenants set forth in the Indenture or certain representations made by the Authority in the Indenture or certain certificates of the Authority are false or misleading, the interest payable of the Series 2010 A Bonds may become subject to federal income taxation retroactive to the date of issuance of the Series 2010 A Bonds, regardless of the date of which noncompliance or misrepresentation is ascertained.

## RECENT EVENTS

### Pending Legislation

On January 12, 2010, legislation was introduced in the Rhode Island General Assembly that would prohibit the Authority from charging tolls on the Mount Hope Bridge, currently a non-toll bridge. While there is no indication at this time what the outcome of this legislation will be, if it were to become law, it is not believed that any such prohibition would have any immediate material negative impact on the Authority. Net Revenues are currently derived solely from tolls on the Claiborne Pell Bridge and the Authority's forecasts and assumptions are based on these revenues and not on any future revenues that might result from tolling the Mount Hope Bridge.

### Sakonnet River Bridge

The Governor's Proposed FY 2011 State Budget includes authorization for the Rhode Island Department of Transportation ("RIDOT") to transfer ownership of the new Sakonnet River Bridge, which is currently under construction (the "Sakonnet Bridge"), to the Authority. The Sakonnet Bridge crosses Rhode Island State Route 24 (RI 24) over the Sakonnet River, a tidal passage separating the Town of Portsmouth, Rhode Island on Aquidneck Island to the west and the Town of Tiverton, Rhode Island on the mainland to the east. The bridge is located in Newport County, Rhode Island just to the south of where the Sakonnet River opens into Mount Hope Bay.

The construction of the Sakonnet Bridge is being financed with the proceeds of grant anticipation bonds (the "GARVEE Bonds") issued by the Rhode Island Economic Development Corporation pursuant to Article 8 of Chapter 376 of the Public Laws of 2003. The GARVEE Bonds are payable solely from federal aid payments received from the Federal Highway Administration ("FHWA") pursuant to Section 311 of the National Highway System Designation Act of 1995, commonly referred to as the Grant Anticipation Revenue Vehicle (GARVEE) Program.

The Governor's Proposed FY 2011 State Budget includes a request for approval of the General Assembly for the Authority to incur an obligation of up to \$350 million (the "Sakonnet Obligation") to RIDOT and/or the State for the purpose of providing funds to acquire the Sakonnet Bridge and reimburse RIDOT and/or the State for the construction costs thereof, including, but not limited to, those costs financed by the GARVEE Bonds in accordance with federal requirements.

As part of the proposed transfer of the Sakonnet Bridge to the Authority, the Governor's Proposed FY 2011 State Budget also authorizes the Authority to impose a toll on the Sakonnet Bridge, which is an action recommended by the Governor's Blue Ribbon Panel for Transportation Funding. Before a toll can be imposed, the State must undertake an environmental review process acceptable to the FHWA. Upon completion of this process, a toll agreement would be executed among the State, FHWA and the Authority.

The Governor's Proposed FY 2011 State Budget provides that the toll revenues generated from the Sakonnet Bridge will be utilized first to operate and maintain the Sakonnet Bridge, with the remaining toll revenues split between RIDOT and the Authority, seventy percent (70%) and thirty percent (30%), respectively. It is anticipated that: (1) RIDOT's portion of such toll revenues will be used to establish a ten (10) year \$150 million Capital Bridge Improvement Program; and (2) the Authority's portion of such toll revenues will be used to fund capital improvements for the Mount Hope Bridge, Claiborne Pell Bridge and Sakonnet Bridge.

If incurred, the Sakonnet Obligation would be a special obligation of the Authority payable to RIDOT and/or the State in accordance with federal requirements annually from the toll revenues (not to exceed seventy percent (70%) as further described above) received by the Authority from the Sakonnet Bridge after deducting operation and maintenance costs. The Sakonnet Obligation will not bear interest. It is anticipated that the Sakonnet Obligation would be paid in approximately twenty (20) years.

It is anticipated that the toll revenues received by the Authority from the operation of the Sakonnet Bridge would increase Net Revenues and, as a result, reduce likelihood of future needs to increase the toll rate for the Claiborne Pell Bridge or reinstitute a toll on the Mount Hope Bridge.

The provisions of the Governor's Proposed FY 2011 State Budget regarding the Sakonnet Bridge are pending in the General Assembly and will not become law until they are approved by the legislature. No assurance can be given regarding the passage of the proposal regarding the Authority's acquisition of the Sakonnet Bridge or the ultimate form of such legislation."

### **CERTAIN LEGAL MATTERS**

Certain legal matters incidental to the authorization, issuance, sale and delivery of the Series 2010 A Bonds will be passed upon by Nixon Peabody LLP, Providence, Rhode Island, Bond Counsel, and Hinckley, Allen & Snyder LLP, Providence, Rhode Island, Disclosure Counsel for the Authority. Certain legal matters will be passed upon for the Underwriters by their counsel, Taft & McSally LLP, Cranston, Rhode Island.

### **UNDERWRITING**

The Underwriters have agreed, subject to certain conditions, to purchase the Series 2010 A Bonds from the Authority at an aggregate purchase price of \$48,861,511.74 reflecting the par amount of the Series 2010 A Bonds less a net original issue discount of \$794,545.00 and less an underwriters' discount of \$343,943.26. The Purchase Contract between the Underwriters and the Authority, with respect to the Series 2010 A Bonds, provides that the Underwriters will purchase all of the Series 2010 A Bonds, if any are purchased, and requires the Authority to indemnify the Underwriters against losses, claims, damages and liabilities to third parties arising out of any materially incorrect or incomplete statements or information contained in this Official Statement pertaining to the Authority. The initial public offering price set forth on the inside cover page of this Official Statement may be changed by the Underwriters and the Underwriters may offer and sell the Series 2010 A Bonds to certain dealers (including dealers depositing Series 2010 A Bonds into investment trusts) and others at prices lower than the offering price set forth on the inside cover page.

Morgan Stanley, the parent company of Morgan Stanley & Co. Incorporated, has entered into a retail brokerage joint venture with Citigroup Inc. As part of the joint venture Morgan Stanley & Co. Incorporated will distribute municipal securities to retail investors through the financial advisor network of a new broker-dealer, Morgan Stanley Smith Barney LLC. This distribution arrangement became effective on June 1, 2009. As part of this arrangement, Morgan Stanley & Co. Incorporated will compensate Morgan Stanley Smith Barney LLC. for its selling efforts with respect to the Series 2010 A Bonds.

### **CONTINUING DISCLOSURE**

In order to assist the Underwriters in complying with Rule 15c2-12(b)(5) promulgated by the Securities and Exchange Commission (the "Rule"), the Authority will covenant for the benefit of owners of the Series 2010 A Bonds to provide certain financial information and operating data relating to the Authority by not later than 240 days after the end of each fiscal year commencing with the fiscal year ending June 30, 2010 (the "Annual Report"), to provide notices of the occurrence of certain enumerated events, if material and to provide notice of failure to provide the Annual Report. The covenants will be contained in a Continuing Disclosure Certificate, the proposed form of which is provided in APPENDIX F.

The Authority has complied with all continuing disclosure agreements made by it in accordance with SEC Rule 15c2-12.

### **TRAFFIC AND CONSULTING ENGINEERS**

The section of this Official Statement entitled "THE CLAIBORNE PELL BRIDGE AND THE MOUNT HOPE BRIDGE— Contract Maintenance and Capital Projects" was prepared, in part, on the basis of information supplied by PB Americas, Inc., New York, New York, the Consulting Engineer. APPENDIX D of this Official Statement - "2009 Ten Year Renewal and Replacement Plan Narrative Summary" was prepared by PB Americas, Inc. and contains information on the condition of the existing bridge and tollway system and the projected needs of the bridge and tollway system in terms of renewal and replacement deposits and future maintenance.

The sections of this Official Statement entitled “THE CLAIBORNE PELL BRIDGE AND THE MOUNT HOPE BRIDGE– Contract Maintenance and Capital Projects” and “THE CLAIBORNE PELL BRIDGE AND THE MOUNT HOPE BRIDGE– Recent and Historical Toll Transactions and Toll Revenues” were prepared, in part, on the basis of information supplied by Jacobs Engineering Group, Inc., New York, New York, the Traffic Engineer. APPENDIX C of this Official Statement – “Claiborne Pell Bridge Traffic and Revenue Study” was prepared by Jacobs Engineering Group, Inc. and contains information regarding traffic and revenues and forecasts of future traffic and revenues of the bridge and tollway system. The forecasts in APPENDIX C are based on assumptions made by Jacobs Engineering Group, Inc. concerning future events and circumstances they believe are significant to the forecasts.

The achievement of any activity estimates, forecasts or projections of the Consulting Engineer and the Traffic Engineer may be affected by fluctuating economic and other market conditions and other factors, including, without limitation, competition for and price increases for labor and materials and other matters contained in the assumptions in such reports, and depends upon the occurrence of other future events that cannot be assured. Therefore, actual results may vary from the forecasts, estimates and projections, and such variations could be material.

### **FINANCIAL STATEMENTS**

The financial statements of the Authority included as APPENDIX B to this Official Statement have been audited by Lefkowitz, Garfinkel, Champi & DeRienzo P.C., independent certified public accountants, to the extent and for the periods indicated in their report on those statements.

### **RATINGS**

The Series 2010 A Bonds are rated “A” by Fitch Ratings (“Fitch”) and “A-” by Standard & Poor’s Rating Group (“Standards & Poor’s”), a division of The McGraw-Hill Companies, Inc. A rating reflects only the view of the rating agency assigning such rating and an explanation of the significance of such ratings may be obtained from the respective rating agencies. Certain information and materials concerning the Series 2010 A Bonds, the Authority were furnished to the rating agencies by the Authority and others. Generally, rating agencies base their ratings on such information and materials and investigations, studies and assumptions by the respective rating agency. There is no assurance that each such rating will continue for any given period of time or that any rating will not be revised downward or withdrawn entirely by any such rating agency if, in its judgment, circumstances so warrant. Any such downward revision or withdrawal of any such rating may have an adverse effect on the price at which the Series 2010 A Bonds may be resold.

### **FINANCIAL ADVISOR**

The Authority has retained First Southwest Company (the “Financial Advisor”) to serve as its financial advisor in connection with the issuance of the Series 2010 A Bonds. The Financial Advisor has not independently verified any of the information contained in this Official Statement and makes no guarantee as to its completeness or accuracy. The Financial Advisor’s fee for services rendered with respect to the sale of the Series 2010 A Bonds is contingent upon the issuance and delivery of the Series 2010 A Bonds, and receipt by the Authority of payment therefor. The Authority may engage the Financial Advisor to perform other services, including without limitation, providing certain investment services with regard to the investment of Bond proceeds.

### **TAX STATUS**

#### **Federal Income Taxes**

The Internal Revenue Code of 1986, as amended (the “Code”), imposes certain requirements that must be met subsequent to the issuance and delivery of the Series 2010 A Bonds for interest thereon to be and remain excluded from gross income for Federal income tax purposes. Noncompliance with such requirements could cause the interest on the Series 2010 A Bonds to be included in gross income for Federal income tax purposes retroactive to the date of issue of the Series 2010 A Bonds. Pursuant to the Indenture and a Tax Certificate of the Authority as to Arbitrage and the Provisions of Sections 103 and 141-150 of the Internal Revenue Code of 1986 (the “Tax

Certificate”), the Authority has covenanted to comply with the applicable requirements of the Code in order to maintain the exclusion of the interest on the Series 2010 A Bonds from gross income for Federal income tax purposes pursuant to Section 103 of the Code. In addition, the Authority has made certain representations and certifications in the Indenture and the Tax Certificate. Bond Counsel will not independently verify the accuracy of those representations and certifications.

In the opinion of Nixon Peabody LLP, Bond Counsel, under existing law and assuming compliance with the aforementioned covenant, and the accuracy of certain representations and certifications made by the Authority described above, interest on the Series 2010 A Bonds is excluded from gross income for Federal income tax purposes under Section 103 of the Code. Bond Counsel is also of the opinion that such interest is not treated as a preference item in calculating the alternative minimum tax imposed under the Code with respect to individuals and corporations. Interest on the Series 2010 A Bonds is excluded from the adjusted current earnings of corporations for purposes of computing the alternative minimum tax imposed on corporations.

### **State Taxes**

Bond Counsel is also of the opinion that the Series 2010 A Bonds, their transfer and the income therefrom, including any profit made on the sale thereof, are exempt from taxation by and within the State; although the Series 2010 A Bonds, their transfer and the income therefrom, including any profit made on the sale thereof, may be included in the measure of State estate taxes and certain State corporate and business taxes. Bond counsel expresses no opinion as to other State or local tax consequences arising with respect to the Series 2010 A Bonds nor as to the taxability of the Series 2010 A Bonds or the income therefrom under the laws of any state other than the State.

### **Original Issue Discount**

Bond Counsel is further of the opinion that the difference between the principal amount of the Series 2010 A Bonds maturing December 1, 2018, December 1, 2021 through 2028 with a 4.625% interest coupon, inclusive, and December 1, 2029, December 1, 2030, December 1, 2035 with a 5.125% interest coupon, December 1, 2035 with a 5.00% interest coupon and December 1, 2039 (collectively the “Discount Bonds”) and the 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 such Discount Bonds of the same maturity 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 Series 2010 A Bonds. Further, such original issue discount accrues actuarially on a constant interest rate basis over the term of each Discount Bond and the basis of each Discount Bond acquired at such initial offering price by an initial purchaser thereof will be increased by the amount of such accrued original issue discount. The accrual of original issue discount may be taken into account as an increase in the amount of tax-exempt income for purposes of determining various other tax consequences of owning the Discount Bonds, even though there will not be a corresponding cash payment. Owners of the Discount Bonds are advised that they should consult with their own advisors with respect to the state and local tax consequences of owning such Discount Bonds.

### **Original Issue Premium**

The Series 2010 A Bonds maturing on December 1, 2019, December 1, 2020 and December 1, 2028 with a 5.00% interest coupon (collectively, the “Premium Bonds”) are being offered at prices in excess of their principal amounts. An initial purchaser with an initial adjusted basis in a Premium Bond in excess of its principal amount will have amortizable bond premium which is not deductible from gross income for federal income tax purposes. The amount of amortizable bond premium for a taxable year is determined actuarially on a constant interest rate basis over the term of each Premium Bond based on the purchaser’s yield to maturity (or, in the case of Premium Bonds callable prior to their maturity, over the period to the call date, based on the purchaser’s yield to the call date and giving effect to any call premium). For purposes of determining gain or loss on the sale or other disposition of a Premium Bond, an initial purchaser who acquires such obligation with an amortizable bond premium is required to decrease such purchaser’s adjusted basis in such Premium Bond annually by the amount of amortizable bond premium for the taxable year. The amortization of bond premium may be taken into account as a reduction in the amount of tax-exempt income for purposes of determining various other tax consequences of owning such Series 2010 A Bonds. Owners of the Premium Bonds are advised that they should consult with their own advisors with respect to the state and local tax consequences of owning such Premium Bonds.

## **Ancillary Tax Matters**

Ownership of the Series 2010 A Bonds may result in other federal tax consequences to certain taxpayers, including, without limitation, certain S corporations, foreign corporations with branches in the United States, property and casualty insurance companies, individuals receiving Social Security or Railroad Retirement benefits, and individuals seeking to claim the earned income credit. Ownership of the Series 2010 A Bonds may also result in other federal tax consequences to taxpayers who may be deemed to have incurred or continued indebtedness to purchase or to carry the Series 2010 A Bonds; for certain bonds issued during 2009 and 2010, the American Recovery and Reinvestment Act of 2009 modifies the application of those rules as they apply to financial institutions. Prospective investors are advised to consult their own tax advisors regarding these rules.

Commencing with interest paid in 2006, interest paid on tax-exempt obligations such as the Series 2010 A Bonds is subject to information reporting to the Internal Revenue Service (the “IRS”) in a manner similar to interest paid on taxable obligations. In addition, interest on the Series 2010 A Bonds may be subject to backup withholding if such interest is paid to a registered owner that (a) fails to provide certain identifying information (such as the registered owner’s taxpayer identification number) in the manner required by the IRS, or (b) has been identified by the IRS as being subject to backup withholding.

Bond Counsel is not rendering any opinion as to any Federal tax matters other than those described in the opinions attached as APPENDIX E. Prospective investors, particularly those who may be subject to special rules described above, are advised to consult their own tax advisors regarding the federal tax consequences of owning and disposing of the Series 2010 A Bonds, as well as any tax consequences arising under the laws of any state or other taxing jurisdiction.

## **Changes in Law and Post Issuance Events**

Legislative or administrative actions and court decisions, at either the federal or state level, could have an adverse impact on the potential benefits of the exclusion from gross income of the interest on the Series 2010 A Bonds for Federal or state income tax purposes, and thus on the value or marketability of the Series 2010 A Bonds. This could result from changes to Federal or state income tax rates, changes in the structure of Federal or state income taxes (including replacement with another type of tax), repeal of the exclusion of the interest on the Series 2010 A Bonds from gross income for Federal or state income tax purposes, or otherwise. It is not possible to predict whether any legislative or administrative actions or court decisions having an adverse impact on the Federal or state income tax treatment of holders of the Series 2010 A Bonds may occur. Prospective purchasers of the Series 2010 A Bonds should consult their own tax advisers regarding such matters.

Bond Counsel has not undertaken to advise in the future whether any events after the date of issuance and delivery of the Series 2010 A Bonds may affect the tax status of interest on the Series 2010 A Bonds. Bond Counsel expresses no opinion as to any Federal, state or local tax law consequences with respect to the Series 2010 A Bonds, or the interest thereon, if any action is taken with respect to the Series 2010 A Bonds or the proceeds thereof upon the advice or approval of other counsel.

## **MISCELLANEOUS**

*Availability of Documents.* The summaries or descriptions in this Official Statement of certain provisions in the Indenture and all references to other materials not purporting to be quoted in full are only brief outlines of certain provisions and do not constitute complete statements of such documents or provisions. Reference is made to the complete documents relating to such matter for further information, copies of which will be furnished by the Authority upon written request delivered to Rhode Island Turnpike and Bridge Authority, Claiborne Pell Bridge, Administration Building, One East Shore Road, P.O. Box 437, Jamestown, RI 02835.

**AUTHORIZATION**

The Authority has authorized the distribution of this Official Statement.

This Official Statement has been duly executed and delivered by the Chairman on behalf of the Authority.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY

By: /s/ David A. Darlington  
Chairman

March 25, 2010

**SUMMARY OF DEFINITIONS AND THE INDENTURE**

**DEFINITIONS**

Set forth below are summary definitions of certain terms used in this Official Statement and in the Indenture, and not otherwise defined herein. Reference is made to the Indenture for complete and definitive definitions of such terms.

“Account” shall mean any account or subaccount created in any Fund created under the Indenture.

“Accountants” shall mean the independent firm of nationally recognized certified public accountants at the time employed by the Authority to perform and carry out the duties of imposed on Accountants by the Master Indenture.

“Accreted Amount” means, with respect to Capital Appreciation Bonds of any Series and as of the date of calculation, the amount established pursuant to the Supplemental Indenture authorizing such Capital Appreciation Bonds as the amount representing the initial public offering price, plus the accumulated and compounded interest on such Bonds to the date of calculation.

“Act” shall mean Title 24, Chapter 12 of the General Laws of Rhode Island as amended from time to time.

“Additional Facility” shall mean any bridge, feeder road, highway, road, freeway, tunnel, overpass, underpass, equipment or signal and information system or parking or transportation facility in the State which the Authority is authorized by the Act as amended from time to time or other law to construct, reconstruct, renovate, acquire, maintain, repair, operate or manage, or any portion thereof.

“Annual Debt Service” shall mean, without duplication, the amount of payments required to be made for the Principal Amount of and Interest on any specified indebtedness, including mandatory sinking fund redemptions and payments pursuant to agreements with Credit Providers with respect to such indebtedness to reimburse such Credit Providers for debt service payments made, to pay Credit Facility fees, or Qualified Swap Payments scheduled to come due within a specified Fiscal Year of the Authority or within one (1) day thereafter and including Trustee fees, Paying Agent fees, Remarketing Agent fees, if any, Authenticating Agent fees, and Registrar fees; provided, however, the amount of Annual Debt Service shall be reduced by the amount of Qualified Subsidy Payments received by the Authority in each Fiscal Year.

“Assumed Variable Rate” means in the case of:

(a) Outstanding Bonds in the form of Variable Rate Bonds, the greater of (1) the average interest rate on such Bonds for the most recently completed sixty (60) month period or the period such Variable Rate Bonds has been outstanding if it is less than sixty (60) months, or (2) the rate to be determined pursuant to clause (b) below assuming the Outstanding Variable Rate Bonds were being issued on the date of calculation; and

(b) proposed Bonds in the form of Variable Rate Bonds either

(1) to be issued on the basis that, in the opinion of Bond Counsel to be delivered at the time of the issuance thereof, interest on such Variable Rate Bonds would be excluded from gross income for federal income tax purposes, the greater of the (i) the average of the Bond Market Association Swap Index (“BMA Index”) for the twelve (12) month period ending seven (7) days preceding the date of calculation plus 100 basis points, or (ii) the average of the Bond Market Association Swap Index (“BMA Index”) for the sixty (60) month period ending seven (7) days preceding the date of calculation plus 100 basis points, or

- (2) to be issued as Variable Rate Bonds not described in clause (1), the greater of the (i) average of the London Interbank Offered Rate (“LIBOR”) for the time period most closely resembling the reset period for the Variable Rate Bonds for the twelve (12) month period ending seven (7) days preceding the date of calculation plus 100 basis points, or (ii) average of LIBOR for the time period most closely resembling the reset period for the Variable Rate Bonds for the sixty (60) month period ending seven (7) days preceding the date of calculation plus 100 basis points; and provided that if the BMA Index or LIBOR shall cease to be published, the index to be used in its place shall be that index which the Authority in consultation with the Financial Advisor determines most closely replicates such index, as set forth in a certificate of an Authorized Representative of the Authority filed with the Trustee. Notwithstanding the foregoing, in no event shall the Assumed Variable Rate be in excess of the maximum interest rate allowed by law on obligations of the Authority.

“Authenticating Agent” shall mean, with respect to each Series of Bonds, the entity or entities designated as such for such Series of Bonds in the applicable Supplemental Indenture.

“Authority” shall mean the Rhode Island Turnpike and Bridge Authority.

“Authorized Representative” shall mean, with respect to the Authority, the Chairman, Vice Chairman or Executive Director of the Authority or such other person as may be designated to act on behalf of the Authority by written certificate or resolution furnished to the Trustee containing the specimen signature of such person and signed on behalf of the Authority by the Chairman or Vice Chairman.

“Balloon Bonds” means Bonds (and any Reimbursement Agreement for any Credit Facility relating thereto), other than Bonds which mature within one year of the date of issuance thereof, 25% or more of the principal installments on which (a) are due or (b) at the option of the Holder thereof may be redeemed, during any period of twelve consecutive months.

“Bond” or “Bonds” shall mean any revenue bonds or any other evidences of indebtedness issued from time to time pursuant to the Master Indenture and the terms of a Supplemental Indenture. The term shall include, where appropriate, obligations of the Authority under any Qualified Swap Agreement. The term “Bonds” shall not include Bond Anticipation Notes.

“Bond Anticipation Notes” shall mean notes issued by the Authority with a final maturity not longer than four (4) years (or such longer period as may be permitted by the provisions of the Act) in anticipation of the refinancing thereof from all or a portion of the proceeds of Series of Bonds. Bond Anticipation Notes may take the form of commercial paper.

“Bond Counsel” shall mean an attorney or firm or firms of attorneys of national recognition, selected or employed by the Authority and acceptable to the Trustee, experienced in the field of municipal bonds, whose opinions are generally accepted by purchasers of municipal bonds.

“Bond Purchase Contract” shall mean the contract of purchase, with respect to a Series of Bonds, by and between the Authority and the Original Purchaser pertaining to the sale of such Series of Bonds.

“Bond Year” shall mean, with respect to a Series of Bonds, the annual period ending each June 30 or such other date as may be set forth in the Tax Certificate.

“Business Day” shall mean, unless specified otherwise in the applicable Supplemental Indenture, any day of the week other than Saturday, Sunday or a day which shall be, in the State of Rhode Island, the State of New York or in the jurisdiction in which the Corporate Trust Office of the Trustee or the principal office of the Registrar is located, a legal holiday or a day on which banking corporations are authorized or obligated by law or executive order to close.

“Capital Appreciation Bonds” shall mean any Bond the interest on which is compounded and accumulated at the rates and on the dates set forth in a Supplemental Indenture and is payable on the date, if any, on which such Bonds become Current Interest Bonds or upon redemption or on the maturity date of such Bonds.

“Code” shall mean the Internal Revenue Code of 1986, as amended, including applicable Treasury Regulations, rulings and procedures promulgated thereunder or under the Internal Revenue Code of 1954, as amended.

“Construction Fund” shall mean the Fund so designated and created pursuant to the Master Indenture.

“Construction Manager” shall mean the individual or entity designated by the Authority to act as construction manager with respect to a certain Project or Projects.

“Consultant” shall mean a firm or firms of national recognition experienced in matters relating to the planning, development, operation and management (including financial operations) of bridges and transportation facilities, selected and employed by the Authority, from time to time.

“Consulting Engineers” shall mean the engineer or engineering firm or corporation at the time employed by the Authority to perform and carry out the duties imposed on the Consulting Engineers by the Master Indenture.

“Continuing Disclosure Agreement” shall mean that certain Continuing Disclosure Agreement between the Authority and the Trustee dated the date of issuance and delivery of the Bonds, as originally executed and as it may be amended from time to time in accordance with the terms thereof.

“Corporate Trust Office” shall mean the designated office of the Trustee at which its corporate trust business is conducted with respect to the administration of the Master Indenture, which at the date of the Master Indenture is located in Boston, Massachusetts.

“Cost” or “System Project Cost” shall mean (1) as applied to any System Project to be constructed, reconstructed, renovated, maintained, repaired, operated or managed by the Authority shall embrace the cost of construction, reconstruction, renovation, maintenance, repair, operation or management, the cost of the acquisition of all land, rights-of-way, property, rights, easements and interests acquired by the authority for the construction, reconstruction, renovation, maintenance, repair, operation or management, the cost of demolishing or removing any buildings or structures on land so acquired, including the cost of acquiring any lands to which the buildings or structures may be moved, the cost of all machinery and equipment, financing charges, an amount equal to the interest prior to and during construction, reconstruction, renovation, maintenance, repair, operation or management and for one year after completion of construction, reconstruction, renovation, maintenance, repair, operation or management, cost of traffic estimates and of engineering and legal services, plans, specifications, surveys, estimates of cost and of revenues, other expenses necessary or incident to determining the feasibility or practicability of such construction, reconstruction, renovation, maintenance, repair, operation or management, administrative expenses, and such other expenses as may be necessary or incident to the construction, reconstruction, renovation, maintenance, repair, operation or management, the financing of the construction and the placing of the project in operation, such amounts as the Authority may deem necessary for working capital and to create a reserve for interest; (2) as applied to any System Project which the Authority may be authorized to acquire shall mean the amount of the purchase price or the amount of any condemnation award in connection with the acquisition of the project, and shall include the cost of acquiring all the capital stock of the corporation owning the project, if such be the case, and the amount to be paid to discharge all of the obligations of the corporation in order to vest title to the project in the Authority, the cost of improvements to the project which may be determined by the Authority to be necessary prior to the financing thereof, an amount equal to the interest during the period of construction of the improvements and for one year thereafter, the cost of all lands, properties, rights, easements, franchises, and permits acquired, the cost of engineering and legal services, plans, specifications, surveys, estimates of cost and of revenues, other expenses necessary or incident to determining the feasibility or practicability of the acquisition or improvement, administrative expenses, and such other expenses as may be necessary or incident to the financing of the acquisition or improvement and the placing of the project in operation by the Authority and such amounts as the Authority may deem necessary for working capital and to create a reserve for interest; and (3) as applied to the

Mount Hope Bridge shall mean such amount, if any, as the Authority may deem necessary to place the bridge in safe and efficient condition for its operation.

“Cost of Issuance Account” shall mean, with respect to a Series of Bonds, the Account of that name in the Construction Fund created for such Series of Bonds pursuant to the Master Indenture.

“Counterparty” means an entity who is a counterparty to a Qualified Swap Agreement. Such entity shall be a member of the International Swap Dealers Association and meet the requirements of applicable laws of the State and the applicable policies and procedures established by the Authority from time to time, provided that the senior unsecured debt of such counterparty shall be in one (1) of the three (3) highest rating categories without regard to gradations within such categories by each of the Rating Agencies or in any event shall have ratings by each of the Rating Agencies not lower than the ratings of the Authority at the time of execution of a Qualified Swap Agreement.

“Credit Facility” shall mean, with respect to a Series of Bonds, the irrevocable letter of credit, line of credit, municipal bond insurance, or other form of credit enhancement or liquidity support, if any, for such Series of Bonds, provided for in the applicable Supplemental Indenture, including any alternate Credit Facility with respect to such Series of Bonds delivered in accordance with provisions of the Supplemental Indenture providing for the issuance of such Series of Bonds and including any Credit Facility in connection with a Qualified Swap Agreement.

“Credit Provider” shall mean, with respect to a Series of Bonds, the provider of the Credit Facility for such Series of Bonds specified in the applicable Supplemental Indenture and shall include, without limitation, any Credit Provider in connection with a Qualified Swap Agreement.

“Cross-over Date” means with respect to Cross-over Refunding Bonds, the date on which the principal portion of the related Cross-over Refunded Bonds is to be paid or redeemed from the proceeds of such Cross-over Refunding Bonds.

“Cross-over Refunded Bonds” means Bonds or other obligations refunded by Cross-over Refunding Bonds.

“Cross-over Refunding Bonds” means Bonds issued for the purpose of refunding Bonds or other obligations upon the irrevocable deposit of the proceeds of such Cross-over Refunding Bonds in escrow in satisfaction of the requirements of the Master Indenture or any Supplemental Indenture, as applicable to the Cross-over Refunded Bonds, to secure the payment on an applicable redemption date or maturity date of the Cross-over Refunded Bonds (subject to possible use to pay principal of the Cross-over Refunding Bonds under certain circumstances) and the earnings on such escrow deposit are required to be applied to pay interest on the Cross-over Refunding Bonds until the Cross-over Date.

“Current Interest Bond” means any Bond the interest on which is payable on the Interest Payment Dates provided therefor in the Supplemental Indenture authorizing such Bond.

“Debt Service Fund” shall mean the fund so designated and created pursuant to the Master Indenture.

“Debt Service Reserve Fund” shall mean the fund so designated and created pursuant to the Master Indenture.

The following definition of “Debt Service Reserve Fund Requirement” shall apply until: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) obtaining of consent to the alternate definition of “Debt Service Reserve Fund Requirement” set forth below, from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading “Supplemental Indentures Requiring Consent of Bondholders” herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to such definition, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such definition will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis),

or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

“Debt Service Reserve Fund Requirement” shall mean, as of any date of calculation, an amount equal to the lesser of (A) 10% of the principal amount of Outstanding Bonds, (B) one hundred twenty-five percent (125%) of average Annual Debt Service on Outstanding Bonds; provided, however, that for purposes of this subsection, Annual Debt Service shall include the amount of Qualified Subsidy Payments received by the Authority as of any date of calculation, (C) the Maximum Annual Debt Service requirement, or (D) the maximum amount permitted by federal tax law to be funded from Bond proceeds without requiring yield restriction. The Debt Service Reserve Fund Requirement, in respect of a Series of Bonds that constitute Variable Rate Bonds, shall be computed by applying the Assumed Variable Rate. In computing the Debt Service Reserve Fund Requirement in respect of a Series of Variable Rate Bonds with respect to which a Qualified Swap Agreement is in effect pursuant to which the Authority has agreed to pay a Counterparty an amount based on a fixed interest rate, such Series of Variable Rate Bonds shall be deemed to bear interest at an effective rate equal to the fixed interest rate payable by the Authority under such Qualified Swap Agreement; provided that such effective fixed rate may be utilized only if such Qualified Swap Agreement does not result in a reduction or withdrawal of any rating then in effect with respect to the Bonds and so long as such Qualified Swap Agreement is contracted to remain in full force and effect through the stated maturity date of the Variable Rate Bonds. The Authority may, by Supplemental Indenture, establish a different Debt Service Reserve Fund Requirement for a subaccount of a Debt Service Reserve Account that is established to secure one or more, but less than all Series of Bonds issued under the Master Indenture.

The following definition of “Debt Service Reserve Fund Requirement shall take effect upon: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent thereto from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading “Supplemental Indentures Requiring Consent of Bondholders” herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to these provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such definition will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

“Debt Service Reserve Fund Requirement” shall mean, as of any date of calculation, an amount equal to the lesser of (A) 10% of the principal amount of Outstanding Bonds, (B) one hundred twenty-five percent (125%) of average Annual Debt Service on Outstanding Bonds, (C) the Maximum Annual Debt Service requirement, or (D) the maximum amount permitted by federal tax law to be funded from Bond proceeds without requiring yield restriction. The Debt Service Reserve Fund Requirement, in respect of a Series of Bonds that constitute Variable Rate Bonds, shall be computed by applying the Assumed Variable Rate. In computing the Debt Service Reserve Fund Requirement in respect of a Series of Variable Rate Bonds with respect to which a Qualified Swap Agreement is in effect pursuant to which the Authority has agreed to pay a Counterparty an amount based on a fixed interest rate, such Series of Variable Rate Bonds shall be deemed to bear interest at an effective rate equal to the fixed interest rate payable by the Authority under such Qualified Swap Agreement; provided that such effective fixed rate may be utilized only if such Qualified Swap Agreement does not result in a reduction or withdrawal of any rating then in effect with respect to the Bonds and so long as such Qualified Swap Agreement is contracted to remain in full force and effect through the stated maturity date of the Variable Rate Bonds. The Authority may, by Supplemental Indenture, establish a different Debt Service Reserve Fund Requirement for a subaccount of a Debt Service Reserve Account that is established to secure one or more, but less than all Series of Bonds issued under the Master Indenture.

“Dedicated Payments” shall mean any revenues of the Authority other than Revenues which the Authority specifically designates as Dedicated Payments and pledges as additional security for its payment obligations on the Bonds as set forth under the heading “Dedicated Payments” herein and, accordingly, are to be deposited in the Debt

Service Fund upon receipt including, without limitation, any gifts, grants or other payments to the Authority from the United States government, the State or any public or private instrumentality, individual or entity.

“Defeasance Obligations” shall mean moneys, noncallable Government Obligations, noncallable Government Certificates or pre-refunded municipal obligations described in paragraph (d) of the definition of Permitted Investments, or any combination thereof.

“Deferred Interest Bonds” shall mean any Bond issued pursuant to paragraph (f) under the heading “Terms” herein.

“Depository” shall mean any national banking association, savings or savings and loan institution or trust company selected by the Authority and authorized by law to act as a depository of money and securities held under the provisions of the Master Indenture, and may include the Trustee.

“Discount Bonds” shall mean any Bond which is sold to the public at a price less than the aggregated Principal Amount thereof.

“Financial Advisor” shall mean an attorney or firm or firms of national recognition experienced in matters relating to the planning and marketing of obligations similar in nature to the Bonds.

“Fiscal Year” shall mean the fiscal year of the Authority commencing July 1 and ending June 30 or such other period as may be designated in writing by the Authority to the Trustee.

“Fitch” shall mean Fitch Investors Service, Inc., a corporation existing under the laws of the State of New York, its successors and assigns, and, if such corporation shall no longer perform the functions of a securities rating agency, “Fitch” shall mean any other nationally recognized Rating Agency designated by the Authority and acceptable to the Credit Provider.

“Fixed Rate Bonds” shall mean any Bond which bears a fixed rate or rates of Interest during the term thereof.

“Fund” shall mean any fund created under the Master Indenture or under a Supplemental Indenture.

“General Fund” shall mean the fund so designated and created pursuant to the Master Indenture.

“Government Certificates” shall mean evidences of ownership of proportionate interest in future interest or principal payments of Government Obligations, including depository receipts thereof. Investments in such proportionate interest must be limited to circumstances wherein (i) a bank or trust company acts as custodian and holds the underlying Government Obligations; (ii) the owner of the investment is the real party-in-interest and has the right to proceed directly and individually against the obligor of the underlying Government Obligations; and (iii) the underlying Government Obligations are held in a special account, segregated from the custodian’s general assets, and are not available to satisfy any claim of the custodian, any person claiming through the custodian, or any person to whom the custodian may be obligated.

“Government Obligations” shall mean direct and general obligations of, or obligations the timely payment of principal and interest on which, are unconditionally guaranteed by the United States of America.

“Holder” or “Bondholder” shall mean the registered owner of any Bond but shall not include any Counterparty under a Qualified Swap Agreement or any other party contracting with the Authority in connection with a Qualified Swap Agreement.

“Insurance Consultant” shall mean a nationally recognized firm having a favorable reputation for experience in surveying risks and recommending insurance coverage for matters relating to the construction, repair, rehabilitation, operation and management of bridges and transportation facilities, selected and employed by the Authority, from time to time.

“Interest” shall mean that portion of debt service other than the Principal Amount or Redemption Premium payable with respect to any Bond.

“Interest Account” shall mean the account of that name in the Debt Service Fund created pursuant to the Master Indenture.

“Interest Payment Date” shall mean, with respect to each Series of Bonds, each date set forth in the applicable Supplemental Indenture with respect to such Series of Bonds on which Interest is payable.

“Interest Rate Swap” means an agreement between the Authority or the Trustee (at the written direction of the Authority) and a Swap Counterparty related to Bonds of one or more Series whereby (A) a variable rate cash flow (which may be subject to any interest rate cap) on a principal or notional amount is exchanged for a fixed rate of return on an equal principal or notional amount, or (B) a fixed rate cash flow on a principal or notional amount is exchanged for a variable rate of return on an equal principal or notional amount. If the Authority or the Trustee enters into more than one Interest Rate Swap with respect to a Series of Bonds (to the extent applicable), each Interest Rate Swap shall specify the same payment dates.

“Issuer” shall mean the Rhode Island Turnpike and Bridge Authority.

“Jamestown Bridge” shall mean the existing bridge over the west passage of Narragansett Bay between the towns of Jamestown and North Kingstown and the approaches thereto, and shall embrace all tollhouses, administration and other buildings and structures used in connection therewith, together with all property, rights, easements and interests acquired in connection with the construction and operation of the bridge, and shall also refer to the “Jamestown Verrazzano Bridge” constructed in replacement of the Jamestown Bridge.

The following definition of “Maximum Annual Debt Service” shall apply until: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) obtaining of consent to the alternate definition of “Maximum Annual Debt Service” set forth below, from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading “Supplemental Indentures Requiring Consent of Bondholders” herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to such definition, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such definition will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

“Maximum Annual Debt Service” shall mean the maximum Annual Debt Service with respect to any specified indebtedness for any Fiscal Year of the Authority during the term of such indebtedness; provided, however, that for purposes of this definition, Annual Debt Service shall include the amount of Qualified Subsidy Payments received by the Authority for any Fiscal Year of the Authority during the term of such indebtedness.

The following definition of “Maximum Annual Debt Service” shall take effect upon: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent thereto from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading “Supplemental Indentures Requiring Consent of Bondholders” herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to these provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such definition will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

“Maximum Annual Debt Service” shall mean the maximum Annual Debt Service with respect to any specified indebtedness for any Fiscal Year of the Authority during the term of such indebtedness.

“Moody’s” shall mean Moody’s Investors Service, Inc., a corporation existing under the laws of the State of Delaware, its successors and assigns, and, if such corporation shall no longer perform the functions of a securities rating agency, “Moody’s” shall mean any other nationally recognized Rating Agency designated by the Authority and acceptable to the Credit Provider.

“Mount Hope Bridge” shall mean the existing bridge between the towns of Bristol and Portsmouth and the approaches thereto, and shall embrace all tollhouses, administration and other buildings and structures used in connection therewith, together with all property, rights, easements and interests in connection with the construction and operation of the bridge.

The following definition of “Net Debt Service” shall apply until: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) obtaining of consent to the alternate definition of “Net Debt Service” set forth below, from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading “Supplemental Indentures Requiring Consent of Bondholders” herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to such definition, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such definition will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

“Net Debt Service” shall mean the amount required to be deposited in the Debt Service Fund to pay Annual Debt Service; provided however:

(i) In determining the amount of such required deposits, a credit shall be allowed for amounts already on deposit therein, including, without limitation, (a) interest earnings on amounts deposited into the Interest Account, the Principal Account, the Redemption Account, and the Debt Service Reserve Fund (amounts on deposit in the Debt Service Reserve Fund securing one or more Series of Bonds will be deducted from the amount of principal due at final maturity of such Bonds, and in each preceding year until such amounts are exhausted), and (b) capitalized interest;

(ii) for the purposes of calculating the requirements set forth under the heading “Covenants as to Tolls, Etc.” herein, for the collection of tolls and other charges, and the requirements set forth under the heading “Additional Bonds” herein for the issuance of Additional Bonds the amount of interest earnings on the accounts as provided in subparagraph (i)(a) above for the applicable Fiscal Year shall be calculated using the lower of: (1) the current interest rate in effect for such investments or (2) the average interest rate in effect for such investments during any 12 consecutive calendar months of the 15 consecutive calendar months immediately preceding the date of calculation;

(iii) when calculating the amount of such required deposits during such Fiscal Year for any Series of Variable Rate Bonds bearing Interest at a variable rate which cannot be ascertained for any particular Fiscal Year, the interest rate on such Variable Rate Bonds shall be the Assumed Variable Rate;

(iv) when calculating the amount of such required deposits during such Fiscal Year for any Series of Variable Rate Bonds with respect to which a Qualified Swap Agreement is in effect pursuant to which the Authority has agreed to pay a Counterparty an amount based on a fixed interest rate, such Series of Variable Rate Bonds shall be deemed to bear Interest at an effective rate equal to the fixed interest rate payable by the Authority under such Qualified Swap Agreement; provided that such effective fixed rate maybe utilized only if such Qualified Swap Agreement does not result in a reduction or withdrawal of any rating then in effect with respect to the Bonds and so long as such Qualified Swap Agreement is contracted to remain in full force and effect through the stated maturity date of the Variable Rate Bonds;

(v) when calculating the amount of such required deposits during such Fiscal Year for any Series of Bonds with respect to which a Qualified Swap Agreement is in effect pursuant to which the Authority has agreed to pay to a Counterparty an amount based on a variable or floating interest rate, the Annual Debt Service requirement shall include the Interest payable on such Series of Bonds, less fixed amounts to be received by the Authority under such Qualified Swap Agreement plus the amount of the floating payments (estimated in a manner similar to that described in (iii) above, unless another method of estimation is more appropriate, in the opinion of the Authority's financial advisor, underwriter or similar agent, for such floating payments) to be made by the Authority under the Qualified Swap Agreement; provided that the above described calculation of the Annual Debt Service requirement may be utilized only if such Qualified Swap Agreement does not result in a reduction or withdrawal of any rating then in effect with respect to the Bonds and so long as such Qualified Swap Agreement is contracted to remain in full force and effect through the stated maturity date of the such Series of Bonds;

(vi) when calculating the amount of such required deposits during such Fiscal Year for any Series of Balloon Bonds, there shall be treated as payable in such Fiscal Year the amount of principal installments which would have been payable during such Fiscal Year had the principal of each Series of Balloon Bonds Outstanding been amortized, from the end of the fifth anniversary of the issuance of such Balloon Bonds over a period of 25 years thereafter, on a level debt service basis at an interest rate equal to the rate borne by such Balloon Bonds on the date of calculation, provided that if the date of calculation is within twelve months before the actual maturity of such Balloon Bonds or Reimbursement Agreements, the full amount of principal payable at maturity shall be included in such calculation; and

(vii) when calculating the amount of such required deposits during such Fiscal Year with respect to any Capital Appreciation Bonds, all amounts payable on a Capital Appreciation Bond shall be considered a principal payment in the year it becomes due;

provided further, however, that there shall be excluded from the calculation of the amount of such required deposits: (x) Interest on Bonds (including Cross-over Refunding Bonds or Cross-over Refunded Bonds) to the extent that escrowed Interest or capitalized interest is available to pay such Interest, and (y) principal on Cross-over Refunded Bonds to the extent that the proceeds of Cross-over Refunding Bonds are irrevocably deposited in escrow in satisfaction of the requirements of the Master Indenture, and such proceeds or the earnings thereon are required to be applied to pay such principal (subject to the possible use to pay the principal of the Cross-over Refunding Bonds under certain circumstances) and such amounts so required to be applied are sufficient to pay such principal.

The following definition of "Net Debt Service" shall take effect upon: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent thereto from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading "Supplemental Indentures Requiring Consent of Bondholders" herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to these provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such definition will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

"Net Debt Service" shall mean the amount required to be deposited in the Debt Service Fund to pay Annual Debt Service; provided however:

(i) In determining the amount of such required deposits, a credit shall be allowed for amounts already on deposit therein, including, without limitation, (a) interest earnings on amounts deposited into the Interest Account, the Principal Account, the Redemption Account, and the Debt Service Reserve Fund (amounts on deposit in the Debt Service Reserve Fund securing one or more Series of Bonds will be deducted from the amount of principal due at final maturity of

such Bonds, and in each preceding year until such amounts are exhausted), and (b) capitalized interest;

(ii) for the purposes of calculating the requirements set forth under the heading “Covenants as to Tolls, Etc.” herein, for the collection of tolls and other charges, and the requirements set forth under the heading “Additional Bonds” herein for the issuance of Additional Bonds the amount of interest earnings on the accounts as provided in subparagraph (i)(a) above for the applicable Fiscal Year shall be calculated using the current interest rate in effect for such investments;

(iii) when calculating the amount of such required deposits during such Fiscal Year for any Series of Variable Rate Bonds bearing Interest at a variable rate which cannot be ascertained for any particular Fiscal Year, the interest rate on such Variable Rate Bonds shall be the Assumed Variable Rate;

(iv) when calculating the amount of such required deposits during such Fiscal Year for any Series of Variable Rate Bonds with respect to which a Qualified Swap Agreement is in effect pursuant to which the Authority has agreed to pay a Counterparty an amount based on a fixed interest rate, such Series of Variable Rate Bonds shall be deemed to bear Interest at an effective rate equal to the fixed interest rate payable by the Authority under such Qualified Swap Agreement; provided that such effective fixed rate maybe utilized only if such Qualified Swap Agreement does not result in a reduction or withdrawal of any rating then in effect with respect to the Bonds and so long as such Qualified Swap Agreement is contracted to remain in full force and effect through the stated maturity date of the Variable Rate Bonds;

(v) when calculating the amount of such required deposits during such Fiscal Year for any Series of Bonds with respect to which a Qualified Swap Agreement is in effect pursuant to which the Authority has agreed to pay to a Counterparty an amount based on a variable or floating interest rate, the Annual Debt Service requirement shall include the Interest payable on such Series of Bonds, less fixed amounts to be received by the Authority under such Qualified Swap Agreement plus the amount of the floating payments (estimated in a manner similar to that described in (iii) above, unless another method of estimation is more appropriate, in the opinion of the Authority’s financial advisor, underwriter or similar agent, for such floating payments) to be made by the Authority under the Qualified Swap Agreement; provided that the above described calculation of the Annual Debt Service requirement may be utilized only if such Qualified Swap Agreement does not result in a reduction or withdrawal of any rating then in effect with respect to the Bonds and so long as such Qualified Swap Agreement is contracted to remain in full force and effect through the stated maturity date of the such Series of Bonds;

(vi) when calculating the amount of such required deposits during such Fiscal Year for any Series of Balloon Bonds, there shall be treated as payable in such Fiscal Year the amount of principal installments which would have been payable during such Fiscal Year had the principal of each Series of Balloon Bonds Outstanding been amortized, from the end of the fifth anniversary of the issuance of such Balloon Bonds over a period of 25 years thereafter, on a level debt service basis at an interest rate equal to the rate borne by such Balloon Bonds on the date of calculation, provided that if the date of calculation is within twelve months before the actual maturity of such Balloon Bonds or Reimbursement Agreements, the full amount of principal payable at maturity shall be included in such calculation; and

(vii) when calculating the amount of such required deposits during such Fiscal Year with respect to any Capital Appreciation Bonds, all amounts payable on a Capital Appreciation Bond shall be considered a principal payment in the year it becomes due;

provided further, however, that there shall be excluded from the calculation of the amount of such required deposits: (x) Interest on Bonds (including Cross-over Refunding Bonds or Cross-over Refunded Bonds) to the extent that escrowed Interest or capitalized interest is available to pay such Interest, and (y)

principal on Cross-over Refunded Bonds to the extent that the proceeds of Cross-over Refunding Bonds are irrevocably deposited in escrow in satisfaction of the requirements of the Master Indenture, and such proceeds or the earnings thereon are required to be applied to pay such principal (subject to the possible use to pay the principal of the Cross-over Refunding Bonds under certain circumstances) and such amounts so required to be applied are sufficient to pay such principal.

“Net Proceeds” shall mean, with respect to the System and any System Project, proceeds from any insurance, condemnation, performance bond, federal or state flood disaster assistance or any other financial guaranty (except that Net Proceeds shall not include the monies received from any Credit Provider) paid with respect to the System or such System Project remaining after payment therefrom of all reasonable expenses, including attorneys’ fees, incurred in the collection thereof; and, with respect to insurance, to the extent the Authority elects to self-insure, any monies payable from any appropriation made by the Authority with respect to such self-insurance.

“Net Revenues” for any particular period of time shall mean Revenues less the amount needed for the payment of Operating Expenses for such period and less amounts deposited to the Operation and Maintenance Reserve Account.

“Newport Bridge” or “Claiborne Pell Bridge” shall mean the bridge or tunnel or combination of bridge and tunnel constructed or to be constructed over or under the waters of Narragansett Bay between Conanicut Island and the island of Rhode Island, shall embrace the substructure and the superstructure thereof and the approaches thereto and the entrance plazas, interchanges, overpasses, underpasses, tollhouses, administration, storage and other buildings, and highways connecting the bridge or tunnel with the Jamestown Bridge and the State highways as the Authority may determine to construct from time to time in connection therewith, together with all property rights, easements and interests acquired by the Authority for the construction and operation of such bridge or tunnel or combination of bridge and tunnel.

“Non-System Project” shall mean any bridge, feeder road, highway, road, freeway, tunnel, overpass, underpass, equipment or signal and information system or parking or transportation facility which the Authority may now or hereinafter construct, reconstruct, renovate, acquire, maintain, repair, operate or manage as an Additional Facility pursuant to the Act. Each Non-System Project shall be designated as a Non-System project by a resolution of the Authority and shall not be part of the System unless designated as a System Project pursuant to the Master Indenture.

“Officer’s Certificate” shall mean the certificate of an Authorized Representative of the Authority.

“Operating Expenses” shall mean the Authority’s reasonable and necessary current expenses of maintenance, repair and operation of the System and shall include, without limiting the generality of the foregoing, all ordinary and usual expenses of maintenance, repair and operation, which may include expenses not annually recurring, premiums and reserves for insurance, fees or premiums for a Credit Facility (but not including any amounts payable as interest, whether or not characterized as a fee or premium, on draws, advances or loans), all administrative and engineering expenses relating to maintenance, repair and operation, fees and expenses of the Trustee, the Bond Registrar, the Paying Agents, any Depositary, indexing agents and Remarketing Agents, legal expenses, advertising expenses, any taxes or assessments lawfully levied on the System, any payment to pension or retirement funds, any other expenses required or permitted to be paid by the Authority under the provisions of the Master Indenture or by law and any expenses incurred by the Authority for any of the foregoing purposes, but shall not include payments made by the Authority in respect of any reserves for extraordinary maintenance or repair of a type or any allowance for depreciation or any payments of principal or interest on the Bonds, or any deposits or transfers to the credit of the General Fund. Operating Expenses shall not include any expenses for maintenance, repair and operation of a Non-System Project unless such Non-System Project shall be designated as a System Project pursuant to the Master Indenture.

“Operation and Maintenance Fund” shall mean the Fund so designated and created pursuant to the Master Indenture.

“Operation and Maintenance Reserve Account” shall mean the Account of that name in the Operation and Maintenance Fund so designated and created pursuant to the Master Indenture.

“Operation and Maintenance Reserve Account Requirement” shall mean an amount equal to one-fifth (1/5th) of the amount budgeted for the then current Fiscal Year of the Authority for Operating Expenses, which shall initially be funded as set forth in the Supplemental Indenture.

“Opinion of Bond Counsel” shall mean a written opinion of Bond Counsel.

“Opinion of Counsel” shall mean a written opinion of an attorney or firm or firms of attorneys acceptable to the Trustee as the Authority and who (except as otherwise expressly provided in the Master Indenture) may be either counsel for the Authority or the Trustee.

“Option Rights” shall mean, with respect to any Series of Bonds, any rights to call such Bonds for purchase pursuant to the Supplemental Indenture authorizing the issuance of such Bonds.

“Original Purchaser” shall mean the person or entity designated in each Bond Purchase Contract as the initial purchaser or purchasers of a Series of Bonds or, if so designated in such Bond Purchase Contract, the representatives or lead or managing underwriters of such initial purchasers.

“Outstanding,” when used with reference to a Series of Bonds, shall mean, as of any date of determination, all Bonds of such Series theretofore authenticated and delivered except: (a) Bonds of such Series theretofore cancelled by the Trustee or delivered to the Trustee for cancellation; (b) Bonds of such Series which are deemed paid and no longer Outstanding as provided in the Master Indenture; (c) Bonds of such Series in lieu of which other Bonds of such Series have been issued pursuant to the provisions of the Master Indenture relating to Bonds mutilated, destroyed, lost or stolen, unless evidence satisfactory to the Trustee has been received that any such Bond is held by a bona fide purchaser; (d) after any tender date as may be provided for in the applicable Supplemental Indenture, any Bond of such Series held by a Bondholder who has given a tender notice or was required to tender such Bond in accordance with the provisions of the applicable Supplemental Indenture and which was not so tendered and for which sufficient funds for the payment of the purchase price of which have been deposited with the Trustee or the Paying Agent, if any, or any Remarketing Agent appointed under such Supplemental Indenture; and (e) for purposes of any consent or other action to be taken under the Master Indenture by the Holders of a specified percentage of Principal Amount of Bonds of a Series or all Series, Bonds held by or for the account of the Authority.

“Payment of a Series of Bonds” shall mean payment in full of all the Principal Amount, Redemption Premium, if any, and Interest on a Series of Bonds.

“Permitted Investments” shall mean and include any of the following, if and to the extent the same are at the time legal for the investment of the Authority’s money, except as may be provided in the applicable Supplemental Indenture:

- (a) Government Obligations and Government Certificates.
- (b) Obligations issued or guaranteed by any of the following:
  - (i) Federal Home Loan Bank System;
  - (ii) Export-Import Bank of the United States;
  - (iii) Federal Financing Bank;
  - (iv) Government National Mortgage Association;
  - (v) Farmers’ Home Administration;
  - (vi) Federal Home Loan Mortgage Company;
  - (vii) Federal Housing Administration;

- (viii) Private Export Funding Corp;
- (ix) Federal Farm Credit Bank;
- (x) Resolution Trust Company, and
- (xi) Student Loan Marketing Association,

(c) Senior debt obligations of the Federal National Mortgage Association, participation certificates of the General Services Administration, guaranteed participation certificates and guaranteed pool certificates of the Small Business Administration, local authority bonds of the U.S. Department of Housing & Urban Development, guaranteed Title XI financings of the U.S. Maritime Administration, and guaranteed transit bonds of the Washington Metropolitan Area Transit Authority.

(d) Pre-refunded municipal obligations rated in the highest rating category by at least two Rating Agencies and meeting the following conditions:

- (i) such obligations are (A) not to be redeemed prior to maturity or the trustee for such municipal obligations has been given irrevocable instructions concerning their calling and redemption and (B) the issuer of such obligations has covenanted not to redeem such obligations other than as set forth in such instructions;
- (ii) such obligations are secured by Government Obligations or Government Certificates that may be applied only to principal, premium payments and interest of such obligations;
- (iii) the principal of and interest on such Government Obligations or Government Certificates (plus any cash in the escrow fund with respect to such pre-refunded obligations) are sufficient to meet the liabilities of the obligations;
- (iv) the Government Obligations or Government Certificates serving as security for the obligations are held by an escrow agent or trustee; and
- (v) such Government Obligations or Government Certificates are not available to satisfy any other claims, including those against the trustee or escrow agent.

(e) Direct and general long-term obligations of any state of the United States of America or the District of Columbia to the payment of which the full faith and credit of such state is pledged and that are rated in either of the two highest rating categories by at least two Rating Agencies.

(f) Direct and general short-term obligations of any state, to the payment of which the full faith and credit of such state is pledged and that are rated in the highest rating category by at least two Rating Agencies.

(g) Interest-bearing demand or time deposits with, or interests in money market portfolios rated AAA-m by Standard & Poor's issued by, state banks or trust companies or national banking associations, including the Trustee if otherwise eligible, that are members of the Federal Deposit Insurance Corporation ("FDIC"). Such deposits or interests must be (i) continuously and fully insured by FDIC, (ii) if they have a maturity of one (1) year or less, with or issued by banks that are rated in one of the two (2) highest short term rating categories by at least two (2) Rating Agencies, (iii) if they have a maturity longer than one (1) year, with or issued by banks that are rated in one (1) of the two (2) highest rating categories by at least two (2) Rating Agencies, or (iv) fully secured by Government Obligations and Government Certificates. Such Government Obligations and Government Certificates must have a market value at all times at least equal to the principal amount of the deposits or interests. The Government Obligations and Government Certificates must be held by a third party (who shall not be the provider of the collateral), or by any Federal Reserve Bank or depository, as custodian for the institution issuing the deposits or interests. Such third party should have a perfected first lien in the Government Obligations and Government Certificates serving as collateral, and such collateral is to be free from all other third party liens.

(h) Eurodollar time deposits issued by a bank with a deposit rating in one of the top two (2) short-term deposit rating categories by at least two (2) Rating Agencies.

(i) Long-term or medium-term corporate debt guaranteed by any corporation that is rated by at least two Rating Agencies in one of their two (2) highest rating categories.

(j) Repurchase agreements including those of the Trustee in its corporate capacity, (i) the maturities of which are thirty (30) days or less or (ii) the maturities of which are longer than thirty (30) days provided the collateral subject to such agreements are marked to market weekly, entered into with financial institutions such as banks or trust companies organized under State law or national banking associations, insurance companies, or government bond dealers reporting to, trading with, and recognized as a primary dealer by, the Federal Reserve Bank of New York or with a dealer or parent holding company that is rated investment grade (“A” or better) by at least two (2) Rating Agencies. The repurchase agreement shall be collateralized with Government Obligations and Government Certificates or obligations described in paragraph (b) of this definition (the “Collateral”). The repurchase agreement securities and, to the extent necessary, Government Obligations and Government Certificates or obligations described in paragraph (b), exclusive of accrued interest, shall be maintained in an amount at least equal to the amount invested in the repurchase agreements. In addition, the provisions of the repurchase agreement shall meet the following additional criteria:

- (i) the third party (who shall not be the provider of the collateral) has possession of the Collateral;
- (ii) failure to maintain the requisite collateral levels will require the third party having possession of the securities to liquidate the securities immediately.

(k) Prime commercial paper of a corporation, finance company or banking institution rated in the highest short-term rating category by at least two (2) Rating Agencies.

(l) Public housing bonds issued by public agencies. Such bonds must be: fully secured by a pledge of annual contributions under a contract with the United States of America; temporary notes, preliminary loan notes or project notes secured by a requisition or payment agreement with the United States of America; or state or public agency or municipality obligations rated in the highest credit rating category by at least two Rating Agencies.

(m) Shares of a diversified open-end management investment company, as defined in the Investment Company Act of 1940, or shares in a regulated investment company, as defined in Section 851(a) of the Code, that is a money market fund that has been rated in the highest rating category by at least two Rating Agencies.

(n) Money market accounts of any state or federal bank, or bank whose holding parent company is, rated in the two highest short-term or long-term rating categories by at least two Rating Agencies.

(o) Investment agreements, the issuer of which is rated in one of the two highest rating categories, by at least two Rating Agencies.

(p) Any debt or fixed income security, the issuer of which is rated in the highest rating category by at least two Rating Agencies.

“Principal Account” shall mean the Account of that name in the Debt Service Fund created pursuant the Master Indenture.

“Principal Amount” with respect to any Bond shall mean the stated principal amount thereof or such other amount payable thereon, whether at maturity or upon redemption prior thereto, and with respect to any Capital Appreciation Bond or Discount Bond the amount designated as the Principal Amount thereof pursuant to the applicable Supplemental Indenture.

“Project” shall mean the Newport Bridge, the Mount Hope Bridge, the Turnpike or any Additional Facility, or any portion thereof as permitted by the Act, as amended from time to time. All Projects of the Authority shall be designated by the Authority as System Projects or Non-System Projects.

“Project Account” shall mean, with respect to a Series of Bonds, the Account of that name in the Construction Fund so designated and created for such Series of Bonds pursuant to the Master Indenture.

“Purchase Fund” shall mean, with respect to a Series of Bonds, the Fund of that name as may be created in the related Supplemental Indenture as provided in the Master Indenture.

“Purchase Price” shall mean the price at which a Series of Bonds is purchased.

“Qualified Subsidy Payments” means payments made by the United States Treasury to the Authority in the form of an interest subsidy or any other similar payment from the Federal government which the Authority receives and causes to be deposited into the Debt Service Fund pursuant to the Master Indenture.

“Qualified Swap Agreement” shall mean (a) an agreement between the Authority or the Trustee (at the written direction of the Authority) and a Swap Counterparty which is an Interest Rate Swap, forward rate agreement, commodity swap, interest rate option, forward foreign exchange agreement, rate cap agreement, rate floor agreement, rate collar agreement, currency swap agreement, embedded cap, cross-currency rate swap agreement, currency option, any other similar agreement (including any option to enter into any of the foregoing), (b) any combination of the foregoing, or (c) a master agreement for any of the foregoing together with all supplements.

“Qualified Swap Payments” means as of each payment date specified in a Qualified Swap Agreement, the amount, if any, payable to the Swap Counterparty by the Authority or the Trustee on behalf of the Authority, but excluding any payments due from the Authority or the Trustee on behalf of the Authority, as a cost, expense or fee under the Qualified Swap Agreement, including, but not limited to, any swap termination payment.

“Qualified Swap Receipts” means as of each payment date specified in a Qualified Swap Agreement, the amount, if any, payable to the Authority or the Trustee for the account of the Authority by the Swap Counterparty.

“Rate Covenant” shall mean the covenant by the Authority contained herein under the heading “Covenant as to Tolls, Etc.”

“Rating Agency” shall mean, with respect to a Series of Bonds, Moody’s, Standard & Poor’s, or Fitch, or any other nationally recognized credit rating agency designated by the Authority, the Trustee and the Credit Provider.

“Rebate Fund” shall mean the Fund so designated and created by the Master Indenture.

“Rebate Requirement” shall mean the amount, if any, determined pursuant to Section 148(f) of the Code to be paid to the United States of America with respect to the Series 2010 A Bonds as described herein under the heading “Computation and Payment of Rebate Amount; Other Tax Covenants.”

“Record Date” shall mean the fifteenth day (regardless of whether a Business Day) of the calendar month immediately preceding an Interest Payment Date.

“Redemption Account” shall mean the Account of that name in the Debt Service Fund so designated and created pursuant to the Master Indenture.

“Redemption Premium” shall mean with respect to any Bond or portion thereof the premium, if any, payable upon redemption thereof.

“Redemption Price” shall mean, with respect to any Bond, or portion thereof, the Principal Amount thereof or such portion or such other amount as may be provided in the applicable Supplemental Indenture plus premium, if any, payable upon redemption thereof.

“Register” shall mean, with respect to each Series of Bonds, the registration books of the Authority kept to evidence the registration and registration of transfer of such Series of Bonds.

“Registrar” shall mean the entity set forth with respect to a Series of Bonds in the applicable Supplemental Indenture, serving as keeper of the Register for such Series of Bonds. For purposes of the Series 2010 A Bonds, the Registrar shall be the Trustee.

“Reimbursement Agreement” shall mean, with respect to a Series of Bonds, any agreement or agreements in each case between a Credit Provider or Credit Providers and the Authority under or pursuant to which a Credit Facility for such Series of Bonds is issued, and any agreement that replaces such original agreement that sets forth the obligations of the Authority to such Credit Provider or Credit Providers and the obligations of such Credit Provider or Credit Providers to the Authority.

“Remarketing Agent” shall mean, with respect to a Series of Bonds, the placement, tender, or Remarketing Agent or agents, if any, at the time serving as such under the Remarketing Agreement and designated in a Supplemental Indenture as the Remarketing Agent with respect to such Series of Bonds for purposes of the Master Indenture.

“Remarketing Agreement” shall mean the remarketing agreement, if any, with respect to a Series of Bonds, between the Authority and the Remarketing Agent as from time to time amended and supplemented, or if such Remarketing Agreement shall be terminated, then such other agreement which may from time to time be entered into with any Remarketing Agent with respect to the tender and subsequent remarketing or placement of such Series of Bonds.

“Renewal and Replacement Fund” shall mean the Renewal and Replacement Fund so designated and created pursuant to the Master Indenture.

“Renewal and Replacement Fund Requirement” shall mean an amount equal to \$18,852,024 as of December 31, 2009 and redetermined annually thereafter by resolution of the Authority, taking into account the findings of the Consulting Engineers as set forth under the heading “Annual Inspection of Project” herein and for purposes set forth under the heading “Renewal and Replacement Fund” herein. Such Renewal and Replacement Fund Requirement shall be fully funded on the date on which the first Series of Bonds is issued pursuant to the Master Indenture.

“Responsible Officer” shall mean an officer of the Trustee assigned to the Trustee’s corporate trust department, including, without limitation, any Vice-President, any Assistant Vice-President, any Trust Officer, or any other officer and also means any other officer of the Trustee to whom any corporate trust matter involving the Authority is referred because of his or her knowledge of and familiarity with the particular subject.

“Revenue Fund” shall mean the fund so designated and created pursuant to the Master Indenture.

“Revenues” shall mean (whether existing at the date of the Master Indenture or coming into existence thereafter) (1) all tolls, leasehold payments, concession payments, revenues, rates, fees, rents, charges and other income and receipts derived by or for the account of the Authority from the leasing or operation of the System, (2) investment income received on any amounts held in the Revenue Fund, the General Fund, the Construction Fund, the Operation and Maintenance Fund and the Renewal and Replacement Fund, (3) the proceeds of any use and occupancy insurance on any portion of the System, and (4) all accounts receivable, general intangibles and contract rights to receive the amounts described in (1) through (3). “Revenues” shall not include revenues derived from the operation of Non-System Projects (unless designated part of the System pursuant to the Master Indenture), payments pursuant to a Credit Facility, payments pursuant to a Qualified Swap Agreement, or the proceeds of any insurance, other than as mentioned above, the proceeds of any condemnation awards, any gifts, grants, or other payments to the Authority from the United States government (including, but not limited to, the Qualified Subsidy Payments, if any), the State or any public or private instrumentality, individual or entity that are not in the nature of an operating, concession or rental payment with respect to the use and operation of the System.

“Series of Bonds” or “Bonds of a Series” or “Series” shall mean a Series of bonds issued pursuant to the Master Indenture and the terms of a Supplemental Indenture, and when appropriate, shall include a Qualified Swap Agreement.

“Series 2003 A Bonds” shall mean the Authority’s \$35,765,000 Taxable Refunding Revenue Bonds, Series 2003 A.

“Series 2010 A Bonds” shall mean the Authority’s \$50,000,000 Revenue Bonds, Series 2010 A.

“Series 2010 A Debt Service Reserve Fund Requirement” shall mean an amount equal to the least of (i) 10 percent of the Principal Amount of the Series 2010 A Bonds Outstanding, (ii) 125% of the average Annual Debt Service on the Series 2010 A Bonds, (iii) the Maximum Annual Debt Service requirement on the Series 2010 A Bonds, and (iv) the maximum amount permitted by federal tax law to be funded from Series 2010 A Bond proceeds without requiring yield restriction.

“Standard & Poor’s” shall mean Standard & Poor’s Ratings Group, a division of The McGraw-Hill Companies, Inc., a corporation organized and existing under the laws of the State of New York, and its successors and assigns and, if such corporation shall no longer perform the functions of a securities rating agency, Standard & Poor’s shall mean any other nationally recognized securities rating agency designated by the Authority and acceptable to the Credit Provider.

“Subordinated Obligations” shall mean bonds or other forms of indebtedness or other obligations which have a subordinated claim to the Trust Estate.

“Supplemental Indenture” shall mean an indenture supplementing or modifying the provisions of the Master Indenture entered into by the Authority and the Trustee in accordance with the Master Indenture.

“System” shall mean the Projects known as the “Newport Bridge” and the “Mount Hope Bridge” as defined in the Act as in existence on the date of execution and delivery of the Master Indenture, and any additions, extensions and improvements to the System as permitted by the Master Indenture, including System Projects, but shall not include Non-System Projects that have not been designated System Projects and met the requirements set forth under the heading “Addition of Non-System Projects to the System” herein.

“System Project” shall mean any bridge, feeder road, highway, road, freeway, tunnel, overpass, underpass, equipment or signal and information system or parking or transportation facility which the Authority may now or hereafter acquire, construct, reconstruct, renovate, repair, operate or manage as an Additional Facility under the Act designated as such by official action of the Authority and meeting the requirements set forth under the heading “Addition of Non-System Projects to the System” herein.

“Tax Certificate” shall mean the Tax Certificate as to Arbitrage and the Provisions of Sections 103 and 141-150 of the Internal Revenue Code of 1986 of the Authority dated the Date of Issuance of the Series 2010 A Bonds.

“Taxable Bonds” shall mean Bonds on which the interest is not excludable from gross income for purposes of federal income taxation pursuant to Section 103 of the Code.

“Tax-Exempt Bonds” shall mean Bonds on which the interest is excludable from gross income for purposes of federal income taxation pursuant to Section 103 of the Code.

“Tender Bonds” shall mean any Variable Rate Bonds or Fixed Rate Bonds issued with an option, exercisable by the Holders thereof, to have such Bonds either repurchased or redeemed prior to the maturity thereof, provided however, such Tender Bonds shall only be payable from moneys provided by a Qualified Swap Agreement or Credit Facility obtained for such purpose.

“Traffic Engineers” shall mean the engineer or engineering firm or corporation at the time employed by the Authority to perform and carry out duties imposed on the Traffic Engineers by the Master Indenture.

“Trust Estate” shall mean:

- (a) Net Revenues;
- (b) Amounts on deposit from time to time in the Funds and Accounts created pursuant to the Master Indenture, including the earnings thereon, subject to the provisions of the Master Indenture permitting the application thereof for the purposes and on the terms and conditions set forth in the Master Indenture; provided, however, that there expressly is excluded from any pledge, assignment, lien or security interest created by the Master Indenture any amount on deposit in the Operation and Maintenance Fund, Rebate Fund, General Fund and the Purchase Fund, if any;
- (c) Any and all other property of any kind from time to time acquired by delivery or by writing specifically conveyed, pledged, assigned or transferred, as and for additional security under the Master Indenture for the Bonds, by the Authority or by anyone on their behalf, or with their written consent in favor of the Trustee, which is authorized by the Master Indenture to receive any and all such property at any and all times and to hold and apply the same subject to the terms of the Master Indenture.

“Turnpike” shall have the meaning as ascribed to that term in the Act, as amended from time to time.

“Variable Rate Bonds” shall mean any Bond which provides for a variable, adjustable, convertible or other similar rates of Interest, not fixed as to percentage at the date of issuance thereof.

“Variable Rate Ceiling” shall mean the maximum Interest rate payable on Variable Rate Bonds during such period as such Bonds shall be Variable Rate Bonds and as stated in the applicable Supplemental Indenture. (Section 101)

## **SUMMARY OF THE INDENTURE**

The Master Indenture, as amended and supplemented by the First Supplemental Indenture and the Second Supplemental Indenture (collectively, the “Indenture”), contains terms and conditions relating to the issuance and sale of Bonds under it, including various covenants and security provisions, certain of which are summarized below. This summary does not purport to be comprehensive or definitive and is subject to all of the provisions of the Indenture to which reference is hereby made, copies of which are available from the Authority or the Trustee.

### Master Indenture

#### **Indenture to Constitute a Contract**

The Master Indenture constitutes a contract between the Authority and the Trustee, for the benefit and security of each Credit Provider, if any, and the holders of all Bonds issued thereunder. The provisions and covenants of the Master Indenture are for the equal and proportionate benefit and security of the holders of all of the Outstanding Bonds issued thereunder, without preference, priority or distinction as to lien or otherwise of any of such Bonds over any other such Bonds, except as otherwise provided in the Master Indenture. (Granting Clauses)

#### **Pledge and Security**

In consideration of the premises, the acceptance by the Trustee of the trusts created by the Master Indenture, and of the purchase and acceptance of each Series of Bonds by the Holders thereof, and for the purpose of fixing and declaring the general terms and conditions upon which the Bonds are to be issued, authenticated, delivered, secured and accepted by all persons who shall from time to time be or become Holders thereof, and to secure the payment of the Principal Amount of each Series of Bonds at any time issued and Outstanding under the Master Indenture and the Interest and Redemption Premium, if any, thereon according to their tenor, purpose, and effect, and to secure

Qualified Swap Payments related to such Bonds, and to grant certain rights to the applicable Credit Providers and Counterparties, if any, and to secure the performance and observance of all of the covenants, agreements and conditions contained therein and in the Master Indenture or in any Reimbursement Agreement or Qualified Swap Agreement, the Authority has executed the Master Indenture and does grant a first priority security interest in, assign, transfer, pledge, grant and convey unto the Trustee and its successors and assigns forever, each as their interests may lie for the benefit of the Bondholders as further provided under the heading “Payment of Principal, Interest and Premium” herein and each Credit Provider or Counterparty, if any, until the applicable Credit Facility or Qualified Swap Agreement is no longer outstanding and no amounts are due under the applicable Reimbursement Agreement or Qualified Swap Agreement, the following property, which constitutes the Trust Estate:

- (i) Net Revenues;
- (ii) Amounts on deposit from time to time in the Funds and Accounts created pursuant to the Master Indenture, including the earnings thereon as provided in the Master Indenture, subject to the provisions of the Master Indenture permitting the application thereof for the purposes and on the terms and conditions set forth in the Master Indenture; provided, however, that there expressly is excluded from any pledge, assignment, lien or security interest created by the Master Indenture any amount on deposit in the Operation and Maintenance Fund, the Rebate Fund, the General Fund and the Purchase Fund, if any; and
- (iii) Any and all other revenues and property of any kind from time to time acquired by delivery or by writing specifically conveyed, pledged, assigned or transferred, as and for additional security under the Master Indenture for the Bonds, by the Authority or by anyone on their behalf, or with their written consent in favor of the Trustee, which is authorized by the Master Indenture to receive any and all such property at any and all times and to hold and apply the same subject to the terms of the Master Indenture. (Granting Clauses)

#### **Parity as to Net Revenues; Bonds of a Series Equally and Ratably Secured**

All Bonds issued under the Master Indenture and at any time Outstanding shall be equally and ratably secured with all other Outstanding Bonds, with the same right, lien and preference with respect to Net Revenues, without preference, priority or distinction on account of the date or dates or the actual time or times of the issuance or maturity of the Bonds.

All Bonds of a particular Series shall in all respects be equally and ratably secured and shall have the same right, lien and preference under the Master Indenture established for the benefit of such Series of Bonds, including, without limitation, rights in any related Project Account in the Construction Fund, the Debt Service Fund or the Series Debt Service Reserve Account (except as otherwise provided under the heading “Debt Service Reserve Fund” herein).

Amounts drawn under any Credit Facility with respect to a particular Series and all other amounts held in accounts or funds established with respect to such Series pursuant to the provisions of the Master Indenture governing the establishment of funds and accounts and the Supplemental Indenture providing for the terms of such Series shall be applied solely to make payments on such Series of Bonds.

Nothing contained in the Master Indenture shall prohibit the Authority from issuing Subordinated Obligations. (Section 103)

#### **Issuance**

The Authority may issue Bonds from time to time in one or more Series as provided by the Master Indenture without limitation as to amount, except as may be limited by the applicable Supplemental Indenture or by the provisions under the heading “Additional Bonds” herein, for the purpose of providing funds to finance or

refinance all or a part of the Cost of System Projects. Unless otherwise provided in the Supplemental Indenture providing for the issuance of a Series of Bonds, the Bonds shall be designated “Rhode Island Turnpike and Bridge Authority Revenue Bonds” and shall bear an appropriate designation to indicate the Series. (Section 201)

## Terms

Each Series of Bonds shall have the terms provided in the Master Indenture and in the applicable Supplemental Indenture.

The Bonds may be issued as Fixed Rate Bonds, Variable Rate Bonds, Tender Bonds, Capital Appreciation Bonds, Deferred Interest Bonds, Discount Bonds, Refunding Bonds, Cross-over Refunding Bonds, Completion Bonds, Tax-Exempt Bonds, or Taxable Bonds, or any combination thereof in accordance with applicable provisions set forth below and in the applicable Supplemental Indenture.

(a) The Authority may issue Fixed Rate Bonds. The applicable Supplemental Indenture shall specify the rate or rates of Interest borne by such Bonds and the Interest Payment Dates thereof

(b) The Authority may issue Variable Rate Bonds. Any Variable Rate Bond issued under the Master Indenture may be issued with provisions allowing for conversion of such Bond, at the option of the Authority or the Holder thereof, into a Fixed Rate Bond.

If any Variable Rate Bonds are issued under the Master Indenture, the applicable Supplemental Indenture shall specify:

- (i) the Variable Rate Ceiling payable on such Bonds during the period such Bonds are Variable Rate Bonds;
- (ii) the method or methods for determining the rate of Interest borne by such Bonds and the frequency of change thereof; and
- (iii) if deemed desirable by the Authority, provisions with respect to the conversion of such Bonds to Fixed Rate Bonds.

Any Variable Rate Bonds which contain an option to convert such Bonds to Fixed Rate Bonds shall be deemed Variable Rate Bonds under the Master Indenture until the date of such conversion.

The method or methods for determining the rate of Interest on Variable Rate Bonds pursuant to (ii) above may include the selection of such rate by a Remarketing Agent, as provided in a Remarketing Agreement, the utilization of an index or indices as described in the applicable Supplemental Indenture, or such other standard or standards set forth by the Authority in the applicable Supplemental Indenture or any combination of the foregoing.

(c) The Authority may provide that Bonds issued as Variable Rate Bonds or Fixed Rate Bonds may include an option exercisable by the Holders thereof to have such Bonds either repurchased or redeemed prior to the maturity thereof. If any Tender Bonds are issued under the Master Indenture, the applicable Supplemental Indenture shall specify:

- (i) the period or periods during which and the circumstances under which such option may be exercised, including provisions for the variation of such periods;
- (ii) provisions, as the Authority shall deem desirable, with respect to the repurchase of such Bonds and the remarketing thereof, including provisions with respect to the appointment of a Remarketing Agent therefor;
- (iii) provisions, as the Authority shall deem desirable, for the adjustment of the rate of Interest or redemption date of such Bonds upon the exercise of any such option; and
- (iv) the Purchase Price.

Unless otherwise provided in the applicable Supplemental Indenture, any Tender Bonds which shall have been repurchased pursuant to any Remarketing Agreement and not otherwise redeemed by the Authority shall continue to be Outstanding Bonds under the Master Indenture.

(d) The Authority may issue Capital Appreciation Bonds upon such terms, with respect thereto, as set forth in the applicable Supplemental Indenture. In the applicable Supplemental Indenture for any Capital Appreciation Bonds, the Authority shall provide for the determination of the Principal Amount and Interest payable on such Bonds and for the purposes of the Master Indenture, such terms, with respect to such Bonds, shall have the meaning given in such applicable Supplemental Indenture.

(e) The Authority may issue Discount Bonds in order to provide such yield thereon as deemed appropriate and desirable by the Authority. In the applicable Supplemental Indenture for any Discount Bonds, the Authority shall provide for the determination of the Principal Amount and Interest payable on such Bonds and for the purposes of the Master Indenture, such terms, with respect to such Bonds shall have the meaning given in such applicable Supplemental Indenture.

(f) The Authority may issue Deferred Interest Bonds. In the applicable Supplemental Indenture for any Deferred Interest Bonds, the Authority shall provide for the rate at which Interest accrues on such Deferred Interest Bonds, the time period during which the Deferred Interest Bonds do not pay Interest on a current basis, the amount by which the Principal Amount of such Deferred Interest Bond will increase when Interest is not paid on a current basis, and the amount of Interest payable annually, if any.

(g) The Authority may issue Taxable Bonds upon such terms with respect thereto, as set forth in the applicable Supplemental Indenture. (Section 202)

#### **Additional Bonds**

The following provisions shall apply until: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent to the alternate provisions set forth below, from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading "Supplemental Indentures Requiring Consent of Bondholders" herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to such provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such provisions will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

For the purposes of providing funds for additions, extensions, repairs, replacements, enhancements or expansions to the System, the Authority may issue additional Series of Bonds ("Additional Bonds") from time to time on a parity with other Outstanding Bonds, upon such terms with respect thereto as set forth in the applicable Supplemental Indenture, provided, however, there shall have been filed with the Trustee the following:

(a) A copy, certified by an Authorized Officer of the Authority, of any Supplemental Indenture relating to the Additional Bonds;

(b) A certificate, signed by an Authorized Representative of the Authority, stating that the Authority is not then in default in the performance of any covenants, conditions, agreement or provisions of the Master Indenture or any Supplemental Indenture;

(c) A written opinion of the Traffic Engineers (or such other firm or corporation performing functions similar to the Traffic Engineers, having a nationwide and favorable reputation for skill and experience in such work and retained by the Authority in connection with the issuance of Additional Bonds), stating that for any consecutive twelve (12) month period out of the last eighteen (18) months Net

Revenues were not less than one hundred twenty percent (120%) of Maximum Annual Debt Service with respect to all Bonds Outstanding including such Additional Bonds proposed to be issued;

(d) A certificate of the Consulting Engineers stating the estimated Cost of the System Project to be financed with proceeds of the Additional Bonds and that funds available or reasonably expected to become available for such Cost of the System Project, together with the proceeds for the Additional Bonds, will be sufficient to pay such Cost of the System Project;

(e) A written opinion of counsel to the Authority stating that the issuance of such Additional Bonds has been duly authorized, that all conditions precedent to the delivery of such Bonds have been fulfilled, and that any Indenture or Supplemental Indenture relating to such Bonds creates a valid and enforceable pledge of Net Revenues and a lien for the benefit of the applicable Bondholders on the monies on deposit in the Funds and Accounts and the Net Revenue.

The following provisions shall take effect upon: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent thereto from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading "Supplemental Indentures Requiring Consent of Bondholders" herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to these provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such provisions will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

For the purposes of providing funds for additions, extensions, repairs, replacements, enhancements or expansions to the System, the Authority may issue additional Series of Bonds ("Additional Bonds") from time to time on a parity with other Outstanding Bonds, upon such terms with respect thereto as set forth in the applicable Supplemental Indenture, provided, however, there shall have been filed with the Trustee the following:

(a) A copy, certified by an Authorized Officer of the Authority, of any Supplemental Indenture relating to the Additional Bonds;

(b) A certificate, signed by an Authorized Representative of the Authority, stating that the Authority is not then in default in the performance of any covenants, conditions, agreement or provisions of the Master Indenture or any Supplemental Indenture;

(c) A written opinion of the Traffic Engineers (or such other firm or corporation performing functions similar to the Traffic Engineers, having a nationwide and favorable reputation for skill and experience in such work and retained by the Authority in connection with the issuance of Additional Bonds), stating that one of the following is true:

(i) the ratio of (A) Net Revenues and Dedicated Payments, if any, for the most recent Fiscal Year for which audited financial statements are available to (B) Maximum Annual Debt Service with respect to all Outstanding Bonds, calculated as of the date of sale of, and including such Additional Bonds, will not be less than 1.20:1; or

(ii) the ratio of (A) projected Net Revenues and Dedicated Payments, if any, for each of the next five (5) full Fiscal Years, including in such projections amounts projected to be received from any adopted toll increase, planned openings of any additional System Projects, or any additional Dedicated Payments, to (B) Maximum Annual Debt Service with respect to all Outstanding Bonds, calculated as of the date of sale of, and including such Additional Bonds, will not be less than 1.20:1.

(d) In calculating the ratios set forth in subsection (c): (i) for purposes of estimating Net Revenues, the Authority shall rely on estimates of the Traffic Engineers, which estimates may include projected toll increases and planned openings of any additional System Projects deemed feasible by the Traffic Engineers; (ii) for purposes of estimating Operating Expenses, budgeted or projected deposits to the Renewal and Replacement Fund, additional Dedicated Payments, if any and the costs and completion dates of Projects, the Authority shall rely on estimates of the Consulting Engineers; and (iii) for purposes of estimating Qualified Subsidy Payments and Dedicated Payments, the Authority shall rely on a certificate of an Authorized Officer, which certificate shall set forth the basis for such estimates.

(e) A certificate of the Consulting Engineers stating the estimated Cost of the System Project to be financed with proceeds of the Additional Bonds and that funds available or reasonably expected to become available for such Cost of the System Project, together with the proceeds for the Additional Bonds, will be sufficient to pay such Cost of the System Project;

(f) A written opinion of counsel to the Authority stating that the issuance of such Additional Bonds has been duly authorized, that all conditions precedent to the delivery of such Bonds have been fulfilled, and that any Indenture or Supplemental Indenture relating to such Bonds creates a valid and enforceable: (i) pledge of: (1) Net Revenues; and (2) Dedicated Payments, if any, if such pledge is to be created by such Indenture or Supplemental Indenture as provided under the heading "Dedicated Payments" herein; and (ii) a lien for the benefit of the applicable Bondholders on the monies on deposit in the Funds and Accounts, the Net Revenues and Dedicated Payments, if any. (Section 214)

### **Completion Bonds**

For the purpose of providing funds to pay all or part of the Cost of completing a System Project, the Authority may issue Completion Bonds on a parity with other Outstanding Bonds, upon such terms with respect thereto as set forth in a Supplemental Indenture, provided, however, the aggregate amount of such Completion Bonds shall not exceed ten percent (10%) of the original estimated Cost of the System Project at the time of issuance of the Bonds funding such System Project (however the amount of such Completion Bonds shall not be limited if the Rating Agencies certify that the Authority's credit would not be adversely impacted as a result of the issuance of such Completion Bonds) and provided further, there shall have been filed with the Trustee the following:

(1) A copy, certified by an Authorized Officer of the Authority, of any Supplemental Indenture relating to the Completion Bonds;

(2) A certificate of the Consulting Engineers stating the original estimated Cost of the System Project at the time of issuance of the Bonds, that such estimated Cost will be exceeded, the Cost of completing the System Project, and that other funds available or reasonably, expected to become available for such Cost of completion, together with the proceeds of the Completion Bonds, will be sufficient to pay such Cost of completion;

(3) A written opinion of Bond Counsel stating that the issuance of the Completion Bonds has been duly authorized, that all conditions precedent to the delivery of such Completion Bonds have been provided for or fulfilled or otherwise satisfied, and that the Master Indenture creates a valid and enforceable pledge of the Net Revenues and a lien for the benefit of the Completion Bonds and the Bondholders thereof on the monies on deposit in the Funds and Accounts; and

(4) A certificate signed by an Authorized Officer of the Authority, stating that no Event of Default has occurred and is continuing as of the date of said certificate (except any Event of Default that will be cured by application of the proceeds of the Completion Bonds), which shall be dated as of the date of issuance of the Completion Bonds. (Section 215)

## Refunding Bonds

The following provisions of shall apply until: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent to the alternate provisions set forth below, from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading “Supplemental Indentures Requiring Consent of Bondholders” herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to such provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such provisions will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

For the purpose of providing funds, together with other legally available funds, for refunding all or a portion of Outstanding Bonds of any one or more Series issued under the provisions of the Master Indenture, the Authority may, without satisfying the requirements set forth under the heading “Additional Bonds” herein, issue refunding Bonds or Cross-Over Refunding Bonds (“Refunding Bonds”) from time to time on a parity with other Outstanding Bonds, upon such terms with respect thereto as set forth in a Supplemental Indenture, provided there shall have been filed with the Trustee the following:

(a) A copy, certified by the Secretary of the Authority, of any Supplemental Indenture relating to the Refunding Bonds;

(b) A written opinion of Bond Counsel stating that such Bond Counsel is of the opinion that the issuance of the Refunding Bonds has been duly authorized, that all conditions precedent to the delivery thereof, including defeasance of the obligations to be refunded thereby, have been irrevocably provided for, fulfilled or otherwise satisfied, and that the Master Indenture and any Supplemental Indenture relating thereto creates a valid and enforceable pledge of the Revenue and a lien for the benefit of the applicable Bonds and Bondholders thereof on the monies on deposit in the Funds and Accounts and on the Revenues, which lien is on a parity with the lien of any other Outstanding Bonds;

(c) A certificate of a Consulting Engineer or Accountant, confirming that the Annual Debt Service (and the redemption or provision for payment of the Bonds to be refunded) for each Bond Year for all Outstanding Bonds following issuance of the Refunding Bonds with respect to which the certificate is made is less than the Annual Debt Service for each Bond Year for all Outstanding Bonds (including the Bonds to be refunded) prior to the issuance of such Refunding Bonds;

(d) A certificate of an Authorized Officer to the effect that no Event of Default has occurred and is continuing as of the date of said certificate, which shall be dated within fifteen days prior to the date of issuance of the Refunding Bonds.

The following provisions shall take effect upon: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent thereto from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading “Supplemental Indentures Requiring Consent of Bondholders” herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to these provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such provisions will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

For the purpose of providing funds, together with other legally available funds, for refunding all or a portion of Outstanding Bonds of any one or more Series issued under the provisions of the Master Indenture, the Authority may, without satisfying the requirements set forth under the heading “Additional Bonds” herein, issue refunding Bonds or Cross-Over Refunding Bonds (“Refunding Bonds”) from time to

time on a parity with other Outstanding Bonds, upon such terms with respect thereto as set forth in a Supplemental Indenture, provided there shall have been filed with the Trustee the following:

(a) A copy, certified by the Secretary of the Authority, of any Supplemental Indenture relating to the Refunding Bonds;

(b) A written opinion of Bond Counsel stating that such Bond Counsel is of the opinion that the issuance of the Refunding Bonds has been duly authorized, that all conditions precedent to the delivery thereof, including defeasance of the obligations to be refunded thereby, have been irrevocably provided for, fulfilled or otherwise satisfied, and that the Master Indenture and any Supplemental Indenture relating thereto creates a valid and enforceable pledge of the Revenue and a lien for the benefit of the applicable Bonds and Bondholders thereof on the monies on deposit in the Funds and Accounts and on the Revenues, which lien is on a parity with the lien of any other Outstanding Bonds;

(c) A certificate of a Consulting Engineer or Accountant, stating that at least one of the following will be true immediately following is true:

(i) the Annual Debt Service (and the redemption or provision for payment of the Bonds to be refunded) for each Bond Year for all Outstanding Bonds following issuance of such Refunding Bonds is less than the Annual Debt Service for each Bond Year for all Outstanding Bonds (including the Bonds to be refunded) prior to the issuance of such Refunding Bonds; or

(ii) the ratio of (A) Net Revenues and Dedicated Payments, if any, for the most recent Fiscal Year for which audited financial statements are available to (B) Maximum Annual Debt Service on all Outstanding Bonds, calculated as of the date of sale of, and including such Refunding Bonds, will not be less than 1.20:1; or

(iii) the ratio of (A) projected Net Revenues and Dedicated Payments, if any, for each of the next five (5) full Fiscal Years, including in such projections amounts projected to be received from any adopted toll increase, planned openings of any additional System Projects or any additional Dedicated Payments, to (B) Maximum Annual Debt Service on all Outstanding Bonds, calculated as of the date of sale of, and including such Refunding Bonds, will not be less than 1.20:1.

(d) In calculating the ratios set forth in subsection (c): (i) for purposes of estimating Net Revenues, the Authority shall rely on estimates of the Traffic Engineers, which estimates may include projected toll increases and planned openings of any additional System Projects deemed feasible by the Traffic Engineers; (ii) for purposes of estimating Operating Expenses, budgeted or projected deposits to the Renewal and Replacement Fund, additional Dedicated Payments, if any and the costs and completion dates of Projects, the Authority shall rely on estimates of the Consulting Engineers; and (iii) for purposes of estimating Qualified Subsidy Payments and Dedicated Payments, the Authority shall rely on a certificate of an Authorized Officer, which certificate shall set forth the basis for such estimates.

(e) A certificate of an Authorized Officer to the effect that no Event of Default has occurred and is continuing as of the date of said certificate, which shall be dated within fifteen days prior to the date of issuance of the Refunding Bonds. (Section 216)

### **Non-Presentation of Bonds**

(a) If any Bond is not presented for payment when the Principal Amount thereof becomes due (whether at maturity or upon call for redemption or otherwise), all liability of the Authority to the Holder thereof for the payment of such Bond shall be completely discharged if moneys sufficient to pay the Principal Amount of such Bond and the Interest due thereon shall be held by the Trustee for the benefit of such Bondholder, and thereupon it shall be the duty of the Trustee to hold such moneys subject to subsection (b) below, without liability for interest

thereon, for the benefit of such Bondholder, who shall thereafter be restricted exclusively to such moneys for any claim of whatever nature under the Master Indenture or on, or with respect to, such Bond.

(b) Notwithstanding any provision of the Master Indenture to the contrary, moneys held by the Trustee for the payment of the Principal Amount of, Redemption Premium, if any, or Interest on the Bonds of any Series left unclaimed for three (3) years after the date on which such payment is due shall, at the written direction of the Authority, be repaid promptly by the Trustee to the Authority, as its absolute property and free from trust, and the Trustee shall thereupon be released and discharged with respect thereto and the Bondholders shall look only to the Authority for the payment of such Bonds; provided, however, that before being required to make any such payment to the Authority, the Trustee shall, at the expense of the Authority, cause to be mailed to the holders of all Outstanding Bonds of the Series a notice that said monies remain unclaimed and that, after a date named in said notice, which date shall not be less than thirty (30) days after the date of mailing of such notice, the balance of such monies then unclaimed will be returned promptly to the Authority. (Section 217)

### **Bond Anticipation Notes**

The Authority may issue Bond Anticipation Notes, secured on a parity as to the pledge of Net Revenues with Bonds issued under the Master Indenture, provided that the Authority meets the requirements for issuing Additional Bonds and the Rate Covenant. (Section 218)

### **Qualified Swap Agreements**

The Authority may enter into Qualified Swap Agreements secured on a parity as to the pledge of Net Revenues with the Bonds issued under the Master Indenture; provided that the requirements set forth under the heading "Additional Bonds" herein (except for paragraph (d)) and the heading "Covenants as to Tolls, Etc." herein are met. The provisions of the Master Indenture governing the terms of Bonds shall not be applicable to any Qualified Swap Agreement, except for the provisions governing the conditions for delivery of Bonds, the form of Bonds and the issuance of Additional Bonds. Furthermore, the provisions of the Master Indenture governing the authentication, transfer, presentment or redemption of Bonds or rights of Holders of Bonds, defaults or remedies shall not be applicable to any Qualified Swap Agreement. The provisions of any Swap Agreement providing for defaults and remedies shall apply to such Qualified Swap Agreement. (Section 219)

### **Option to Sell Right to Redeem or Purchase Bonds**

The Authority shall be entitled to reserve or exercise the right to sell, assign or transfer one or more Option Rights with respect to any Series of Bonds as provided for in a Supplemental Indenture. (Section 305)

### **Establishment of Funds and Accounts**

The Indenture establishes the following Funds and Accounts all of which shall be held by the Trustee, except the Operation and Maintenance Fund and the General Fund, which will be held by the Authority.

- (1) Construction Fund
  - (a) Series 2010 A Project Account
  - (b) Series 2010 A Cost of Issuance Account
- (2) Revenue Fund
- (3) Operation and Maintenance Fund
  - (a) Operation and Maintenance Reserve Account
- (4) Debt Service Fund
  - (a) Series 2010 A Interest Account
  - (b) Series 2010 A Principal Account
  - (c) Series 2010 A Sinking Fund Account
  - (d) Series 2010 A Redemption Account

- (5) Debt Service Reserve Fund
  - (a) Series 2010 A Debt Service Reserve Account
- (6) Renewal and Replacement Fund
- (7) Rebate Fund
  - (a) Series 2010 A Rebate Account
- (8) General Fund

(Sections 401 and 501 of Master Indenture; Section 401 of Second Supplemental Indenture)

### **Construction Fund**

The Construction Fund shall be held by the Trustee and shall contain one or more Project Accounts, a Cost of Issuance Account for each Series of Bonds and may contain a Capitalized Interest Account for each Series of Bonds therein and such other accounts as may be specified in the applicable Supplemental Indenture. Moneys, instruments and securities in the Construction Fund shall be held by the Trustee in each Project Account, in trust for the Holders of the Bonds of such Series until such moneys have been committed or encumbered to pay lawfully incurred obligations of the Authority in connection with paying the Costs of System Projects. The Authority covenants that the moneys in such Project Accounts shall be applied, in accordance with the provisions of the Master Indenture and the applicable Supplemental Indenture to the payment of the Cost of the System Projects financed by such Series of Bonds.

After payments of, and reimbursements with respect to, all costs of issuance of a Series of Bonds to be financed with proceeds of such Bonds, any amounts remaining in the applicable Cost of Issuance Account of the Series of Bonds shall be transferred to the applicable Project Account in the Construction Fund and used to pay the Cost of the System Projects financed by the applicable Series of Bonds.

After payments of, and reimbursements with respect to, the System Projects financed by the related Series of Bonds are completed, as certified by the Authority and the Construction Manager and provided no Event of Default has occurred and is continuing in the payment of the Principal Amount of or Interest on any Bonds, surplus money in the related Project Account in the Construction Fund shall be applied (i) to eliminate any deficiency in the related Series Account of the Debt Service Reserve Fund, (ii) for any other Cost of System Projects, (iii) to the Principal Account, or (iv) to the Interest Account. If the related Series of Bonds was issued as Tax-Exempt Bonds, prior to the application of such moneys to pay any other Cost of System Projects or to eliminate a deficiency in the related Series Account of the Debt Service Reserve Fund, the Authority must also receive an Opinion of Bond Counsel to the effect that (i) such use will not adversely affect the exclusion of Interest on such Bonds from gross income for federal income tax purposes, (ii) if applicable, as to the non-tax preference status of such Interest for federal alternative minimum income tax purposes, and (iii) as to the qualification of earnings on any Fund or Accounts for treatment pursuant to Section 148(f)(4)(B) as meeting the requirements of Section 148(f)(2) to rebate amounts to the United States. (Section 401)

### **Application of Monies in the Construction Fund**

Payments shall be made by the Trustee from a Project Account in the Construction Fund upon receipt of a properly executed requisition in substantially the form attached to the Master Indenture as Exhibit A as such form may be amended from time to time in the applicable Supplemental Indenture. Payments shall be made by the Trustee from the Cost of Issuance Account in the Construction Fund upon receipt of a properly executed requisition in substantially the form attached to the Master Indenture as Exhibit B as such form may be amended from time to time in the applicable Supplemental Indenture.

Moneys shall be transferred by the Trustee from the Capitalized Interest Account at such times and in such amounts as provided under the heading "Flow of Funds" herein and the applicable Supplemental Indenture. (Section 402)

## **Application of Bond Proceeds**

All proceeds of the sale of each Series of Bonds shall be paid to the Trustee, against receipt therefor, at or prior to the delivery of such Series of Bonds and shall be deposited or delivered by the Trustee as provided by the Supplemental Indenture providing for the issuance of such Bonds. (Section 502)

## **Revenue Fund**

Except as otherwise provided under the headings “Debt Service Fund” and “Qualified Subsidy Payments” herein, commencing immediately after the issuance of the first Series of Bonds pursuant to the Master Indenture, the Authority shall deposit all moneys it has on hand into the Revenue Fund. Thereafter, the Authority shall deposit all Revenues upon receipt, daily, as far as practicable, in trust accounts in the name of the Trustee with one (1) or more Depositories selected by the Authority, written notice of which is given by the Authority to the Trustee, and satisfactory to the Trustee. All such Revenues shall be deemed to be held for the Revenue Fund and shall be transferred to the Trustee for deposit in the Revenue Fund no less than monthly (but in no event later than one (1) Business Day prior to the date of any payment provided under the heading “Flow of Funds” herein). The Authority shall deposit Dedicated Payments, if any, pledged to the Revenue Fund by the Authority as described under the heading “Dedicated Payments” herein, upon receipt, in the Revenue Fund. Amounts in the Revenue Fund are pledged to Bondholders. (Section 503)

## **Operation and Maintenance Fund**

Amounts in the Operation and Maintenance Fund will be used by the Authority to pay Operating Expenses. Amounts in the Operation and Maintenance Fund are not pledged to Bondholders.

Amounts in the Operation and Maintenance Reserve Account will be used to pay Operating Expenses to the extent that the amounts on deposit in the Operation and Maintenance Fund are not sufficient to make such payments.

The Operation and Maintenance Reserve Account Requirement in any Fiscal Year of the Authority is one-fifth (1/5th) of the Operating Expenses for such Fiscal Year as set forth in the Annual Budget of the Authority prepared in accordance with the provisions of the Master Indenture and shall be funded as provided under the heading “Flow of Funds” herein. The Operation and Maintenance Reserve Account will be fully funded on the date on which the first Series of Bonds is issued under the Master Indenture. (Section 504)

## **Debt Service Fund**

The Authority shall deposit Qualified Subsidy Payments, if any, pledged to the Debt Service Fund by the Authority as described under the heading “Qualified Subsidy Payments” herein, upon receipt, in the Debt Service Fund. Amounts in the Debt Service Fund shall be used by the Trustee to pay debt service on Bonds from the applicable Account therein at the times and in the amounts such debt service is due, and to pay any Qualified Swap Payments under any Qualified Swap Agreement; provided, however, that while there is a Credit Facility in effect with respect to any Series of Bonds, amounts in the related Series Interest, Principal, Sinking Fund or Redemption Account in the Debt Service Fund may be used to reimburse any Credit Provider for amounts paid by it pursuant to a Credit Facility for Interest, Principal Amounts or Redemption Premium, respectively, paid to Holders of such Bonds. Amounts in the Debt Service Fund are pledged to Bondholders.

The Authority may deposit or cause to be deposited in the Redemption Account for any Series of Bonds any moneys not otherwise required by the Master Indenture to be deposited or applied. Subject to the foregoing, amounts in the Redemption Account may be applied at the written direction of the Authority to the redemption of Bonds in accordance with the Master Indenture and the applicable Supplemental Indenture or, in lieu thereof, to the purchase of Bonds at prices not exceeding the applicable Redemption Prices (plus accrued interest) had such Bonds been redeemed (or, if not then subject to redemption, at the applicable Redemption Prices when next subject to redemption), such purchases to be made by the Trustee at such times and in such manner as directed by the Authority. (Section 505)

### **Debt Service Reserve Fund**

Amounts in each Account in the Debt Service Reserve Fund shall be used to pay debt service on the related Series of Bonds on the date such debt service is due when insufficient moneys for that purpose are available in the Bond Fund; provided, however that all amounts in an Account in the Debt Service Reserve Fund shall be used, together with other amounts available for such purpose under the Master Indenture, to provide for payment of the related Series of Bonds when the aggregate of such amounts is sufficient for such purpose. Amounts in each Account of the Debt Service Reserve Fund shall be pledged only to Holders of Bonds of the related Series; provided, however, if so provided in a Supplemental Indenture, upon the issuance of a Series of Refunding Bonds to advance refund a portion of a Series of Outstanding Bonds, amounts in the related Account of the Debt Service Reserve Fund securing the Outstanding Bonds may be pledged to the unrefunded Series of Outstanding Bonds and the Holders of the Series of Refunding Bonds on a pro rata basis. In lieu of or in addition to cash or investments, at any time, the Authority may cause to be deposited to the credit of an Account in the Debt Service Reserve Fund, any form of Credit Facility, in the amount of the related Series Debt Service Reserve Fund Requirement, as provided for in the appropriate Supplemental Indenture, irrevocably payable to the Trustee as beneficiary for the Holders of the related Series of Bonds.

Each Credit Facility shall provide that the Credit Provider shall notify the Authority and the Trustee in writing at least twenty-four (24) months prior to the expiration of the Credit Facility. If (A) the Authority and the Trustee receive such expiration notice and the Credit Provider has not agreed in writing twenty-four (24) months prior to the expiration date to extend its expiration date, (B) the Authority and the Trustee receives written notice from the Credit Provider of the termination of the Credit Facility, or (C) the credit rating of the Credit Provider is no longer rated in the two (2) highest credit rating categories by two (2) Rating Agencies, the Authority shall (x) at least twelve (12) months prior to the expiration date provide a substitute Credit Facility, (y) deposit the applicable Series Debt Service Reserve Fund Requirement to the related Account in the Debt Service Reserve Fund (1) commencing twenty-four (24) calendar months prior to the termination date in equal monthly installments over the next succeeding twelve (12) months, in the case of receipt of an expiration notice, (2) promptly, but in any event, prior to the termination date, in the case of receipt of a termination notice, or (3) within one hundred eighty (180) days, in the case of such reduction in credit rating, or (z) instruct the Trustee to draw on such Credit Facility in the amount of the related Series Debt Service Reserve Requirement (1) twelve (12) months prior to expiration of the Credit Facility, in the case of receipt of an expiration notice, (2) prior to the termination date, in the case of receipt of a termination notice, or (3) after one hundred eighty (180) days, in the case of such reduction in credit rating and deposit any funds so drawn to the appropriate Series Account in the Debt Service Reserve Fund. (Section 506)

### **Renewal and Replacement Fund**

Amounts in the Renewal and Replacement Fund may be used to pay the costs of any non-annually recurring repair and rehabilitation to the System. Amounts in the Renewal and Replacement Fund are pledged to Bondholders. (Section 507)

### **Rebate Fund**

Amounts deposited into the Rebate Fund shall be applied as provided in any Supplemental Indenture. Amounts in the Rebate Fund shall not be pledged to the Bondholders. (Section 508)

### **General Fund**

Amounts in the General Fund shall be available for use by the Authority for any lawful purpose, including the payment of any Subordinated Obligations of the Authority. Amounts in the General Fund shall not be pledged to Bondholders. (Section 509)

## Flow of Funds

On the first Business Day of each month, but in no event later than the fifth Business Day of each month commencing August 1, 2003, except as otherwise provided below, amounts in the Revenue Fund shall be withdrawn by the Trustee and deposited as follows in the following order of priority:

- (i) To the Operation and Maintenance Fund, an amount which, along with amounts remaining in the Operation and Maintenance Fund (excluding amounts in the Operation and Maintenance Reserve Account), are, according to the written certificate of an Authorized Representative delivered to the Trustee on or prior to the first Business Day of each month, needed to pay the Operating Expenses during such month.
- (ii) Except as otherwise provided in the applicable Supplemental Indenture,
  - (a) for deposit into the Interest Account in the Debt Service Fund such sums as shall be sufficient to pay (1) one-sixth (1/6) of the interest becoming due on the next semiannual Interest Payment Date with respect to Bonds that bear interest payable semiannually, (2) the amount of interest becoming due or maturing on the next monthly Interest Payment Date with respect to Bonds that bear interest payable monthly, (3) the amount of interest accruing in such month on Bonds that bear interest payable on other than a monthly or semiannual basis (other than Capital Appreciation Bonds) and (4) the amount of any Qualified Swap Payment payable by the Authority accruing in such month.
  - (b) for deposit in the Principal Account in the Debt Service Fund an amount equal to, one-sixth (1/6) of the principal amount of the Bonds which will mature and become due on the next semiannual maturity date and one-twelfth (1/12) of the principal amount of the Serial Bonds which will mature and become due on the next annual maturity date in such Fiscal Year.
  - (c) for deposit into the Redemption Account, an amount sufficient to pay one-sixth (1/6) of the principal amount of Term Bonds subject to mandatory sinking fund redemption on the next semiannual payment date with respect to Bonds subject to semiannual mandatory sinking fund redemption and one-twelfth (1/12) of the principal amount of Term Bonds subject to mandatory sinking fund redemption on the next annual payment date with respect to Bonds subject to annual mandatory sinking fund redemption.

The amount of any monthly deposit into the Debt Service Fund required above for any Series of Bonds shall be adjusted, as appropriate, to reflect: (1) the frequency of Interest Payment Dates applicable to such Series; (2) the frequency of payment of Qualified Swap Payments; (3) the amount of any Qualified Subsidy Payments received prior to the next Interest Payment Date; and (4) amounts otherwise standing to the credit of the Debt Service Fund.

On or before each Interest Payment Date, from and to the extent monies remain on deposit in the Revenue Fund, the Authority shall make up any deficiencies in the sums deposited in the Interest Account of the Debt Service Fund as set forth above based on the actual interest accruing through such date.

Deposits to the Interest Account, Principal Account and Redemption Account shall not be required to the extent moneys are on deposit therein and available to make the payments which such deposits are intended to provide for, including, without limitation, Qualified Subsidy Payments, amounts derived from capitalized interest, Debt Service Reserve Fund interest earnings, investment earnings on the Interest, Principal and Redemption Accounts and payments by a Counterparty pursuant to a Qualified Swap Agreement providing for payments to the Authority or the Trustee.

Amounts in the applicable Interest, Principal, Sinking Fund or Redemption Account in the Debt Service Fund may be used upon the written instructions of the Authority to reimburse the Credit Provider for amounts paid under a Credit Facility in the same proportion that such Interest, Principal, Sinking Fund or Redemption Price represents payments made to Holders of the related Series of Bonds.

If the deposits provided in this subparagraph (ii) are not sufficient to comply with the provisions of the Supplemental Indenture with respect to each Series of Bonds, such deposits shall be made pro rata in accordance with amounts due for each Series of Bonds.

- (iii) Except as otherwise provided with respect to any Series of Bonds in the applicable Supplemental Indenture, to the applicable Series Account in the Debt Service Reserve Fund with respect to each Series of Bonds, one-twenty fourth (1/24th) of the amount necessary to restore the amount on deposit therein to the Debt Service Reserve Fund Requirement in the case where the deficiency has occurred because of a loss in the investment of the monies in the Debt Service Reserve Fund or in the case where the deficiency has occurred because the Authority or the Trustee has drawn upon the Account in the Debt Service Reserve Fund to pay debt service on the related Series of Bonds, one-sixth (1/6th) of the amount necessary to restore the amount on deposit to the Series Debt Service Reserve Requirement.

If such deposits are not sufficient to comply with the provisions of the applicable Supplemental Indenture with respect to each Series of Bonds, such deposits shall be made pro rata in accordance with amounts due for each Series of Bonds.

- (iv) To make deposits and payments with respect to any Subordinated Obligations, including but not limited to, swap termination payments, or any indenture, instrument or agreement pursuant to which such Subordinated Obligations arise.
- (v) To the Operation and Maintenance Reserve Account, the amount, if any, necessary to fund a deficiency in the Operation and Maintenance Reserve Account Requirement, in the case where the deficiency has occurred because the Authority has drawn upon the Operation and Maintenance Reserve Account to pay Operation and Maintenance Expenses or because (according to the written certificate of an Authorized Representative) the amount budgeted to pay Operation and Maintenance Expenses has increased or exceeded the amount projected, in twelve (12) equal monthly installments.
- (vi) To the Renewal and Replacement Fund the amount, if any, necessary to fund a deficiency in the Renewal and Replacement Fund Reserve Requirement, in the case where a deficiency has occurred because (a) the Authority has drawn upon the Renewal and Replacement Fund, or (b) the Renewal and Replacement Fund Reserve Requirement has been increased pursuant to a Supplemental Indenture or a resolution of the Authority.
- (vii) To the Rebate Fund, the amount required by the applicable Supplemental Indenture.
- (viii) To the General Fund all money remaining in the Revenue Fund.

Deposits shall be made into each Series Interest Account, Principal Account, Sinking Fund Account, Redemption Account or Series Account of the Debt Service Reserve Fund pro rata in accordance with amounts due on each Series of Bonds or amounts necessary to restore each Series Account of the Debt Service Reserve Fund, as the case may be. (Section 510)

### **Investment of Moneys**

- (a) Moneys in all Funds and Accounts shall be invested by the holder of such Fund or Account as soon as practicable upon receipt in Permitted Investments as directed in writing by an Authorized Representative of

the Authority; provided that (i) the maturity date or the date on which such Permitted Investments may be redeemed at the option of the holder thereof shall coincide as nearly as practicable with (but in no event shall be later than) the date or dates on which moneys in the Funds or Accounts for which the investments were made will be required for the purposes thereof, provided that for investments in the Debt Service Reserve Fund the maximum maturity shall be seven (7) years.

(b) For purposes of the previous paragraph, moneys in the following Funds or Accounts shall be invested in Permitted Investments maturing or redeemable at the option of the holder, including the Trustee, of such Permitted Investments not later than the respective following dates: (i) Principal Account, the last Business Day of the then current Bond Year with respect to each applicable Series of Bonds set forth in the applicable Supplemental Indenture; (ii) Interest Account, the Business Day preceding the next Interest Payment Date with respect to the applicable Series; and (iii) Redemption Account, the Business Day preceding the next date on which Bonds of the applicable Series are to be redeemed.

(c) Investment of amounts in any Fund or Account shall be made in the name of such Fund or Account.

(d) Amounts credited to a Fund or Account may be invested, together with amounts credited to one or more other Funds or Accounts, in the same Permitted Investment; provided, however, that (i) each such investment complies in all respects with the provisions of subsection (a) of this section as they apply to each Fund or Account for which the joint investment is made, (ii) separate records are maintained for each Fund and Account and such investments are accurately reflected therein and (iii) amounts credited to the Construction Fund may not be invested together with amounts credited to any other Fund or Account.

(e) The Trustee may make any investment permitted by this section through or with its own commercial banking or investment departments, unless otherwise directed by the Authority.

(f) Except as otherwise specifically provided in the Master Indenture or in any Supplemental Indenture, in computing the amount in any Fund or Account, Permitted Investments purchased as an investment of moneys therein shall be valued on the opening of business on the first Business Day of June and December at the current market value thereof or at the redemption price thereof, if then redeemable, at the option of the holder, in either event inclusive of accrued interest.

(g) If Bonds are issued as Tax-Exempt Bonds, neither the Trustee nor the Authority shall knowingly use or direct or permit the use of any moneys in any manner which would cause any Bond to be an “arbitrage bond” within the meaning ascribed to such term in Section 148 of the Code, or any successor section of the Code.

(h) Any transfer to or deposit in any Fund or Account required by the Master Indenture may be satisfied by transferring or depositing an investment with a market value equal to the required transfer or deposit in lieu of transferring or depositing cash. (Section 511)

### **Purchase Fund**

The Trustee shall establish a separate Purchase Fund for any Series of Bonds that, pursuant to the Supplemental Indenture providing for issuance of such Bonds, is or may be subject to tender for purchase at the option of the Holders or mandatory tender for purchase. The Purchase Fund for a Series and the amounts deposited therein shall not be subject to the lien and pledge created by the Master Indenture but shall be held by the Trustee or Paying Agent, as applicable, for the benefit of tendering Holders of Bonds of such Series. Amounts in each Series Purchase Fund shall be held and disbursed as provided in the applicable Supplemental Indenture. (Section 514)

### **Transfer of Excess Funds**

Any amounts remaining in any Account of the Debt Service Fund or the Debt Service Reserve Fund for a Series of Bonds, after payment of the applicable Series of Bonds and reimbursement of the Credit Provider for any drawings on or payments under any applicable Credit Facility which were used to pay Principal Amount,

Redemption Premium, if any, or Interest on such Bonds, the fees and expenses of the Trustee, the Paying Agent, and all other amounts required to be paid under the Master Indenture, shall upon the written directions of the Authority be transferred to the General Fund to be used for any lawful purpose. (Section 515)

### **Holding of Special Deposits**

Except as otherwise provided in any Supplemental Indenture, moneys (a) held by or for the account of the Authority in connection with the System which are required to be applied under the terms of an agreement to the acquisition, construction or alteration of a facility which is the subject of such agreement (including, but not limited to, any such moneys received by the Authority for such purpose under any grant or loan agreement with the United States of America or the State or any agency, political subdivision or instrumentality of either) or (b) which are subject to refund by the Authority or held for the account of others or subject to refund to others, including, without limitation, any amounts which, under any agreement by the Authority providing for adequate separation of such amounts from Revenues, are collected by the Authority on behalf of others for services rendered or commodities provided to customers of the System, any amounts deducted by the Authority from wage and salary payments to the employees of the Authority, any amounts contributed by the Authority to any pension or retirement fund or system which amounts are held in trust for the benefit of the employees of the Authority and any amounts held as deposits, including customers' service deposits, guaranteed revenue contract deposits, unexpended developer's deposits, minimum revenue deposits and unexpended jobbing deposits, together with any investments of such money and interest and profit thereon, to the extent such interest and profits are also held for the account of others or subject to refund to others, may be held by the Authority outside of the various funds and accounts established by the Master Indenture and, notwithstanding anything to the contrary in the Master Indenture, shall not be subject to the pledge created by the Master Indenture or be considered Revenues under the Master Indenture while so held. (Section 516)

### **Covenants as to Tolls, Etc.**

The following provisions shall apply until: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent to the alternate provisions set forth below, from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading "Supplemental Indentures Requiring Consent of Bondholders" herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to such provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such provisions will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

#### The Authority covenants

(a) that it will continue in effect the present schedules of tolls for traffic using the System until such schedules shall be changed or revised as provided in the Master Indenture,

(b) that it shall establish and maintain tolls for traffic using the System at such levels, as shall, in the opinion of the Traffic Engineers from time to time, result in producing Revenues sufficient to provide an amount of Net Revenues for the System in each Fiscal Year during which Bonds are Outstanding, equal to the greater of (i) one hundred twenty-five percent (125%) of Net Debt Service during such Fiscal Year with respect to all Bonds then Outstanding; or (ii) one hundred percent (100%) of Net Debt Service during such Fiscal Year plus amounts required to be on deposit in the Renewal and Replacement Fund, and

(c) that on or before the 1st day of each Fiscal Year, the Authority shall review the adequacy of its schedule of tolls with respect to the System to satisfy the requirements of this Section for the next succeeding Fiscal Year. If such review, or report of Traffic Engineers provided in connection with such review or in accordance with any Section of the Master Indenture, indicates that the schedules of tolls then in effect for traffic using the System are not producing Net Revenues sufficient to satisfy the requirements in paragraph (b) above in the succeeding Fiscal Year, it will request the Traffic Engineers to make

recommendations as to a revision of the schedules of tolls in order to produce the maximum amount of Net Revenues possible and, upon receiving such recommendations, it will revise such schedules of tolls in order to produce the maximum amount of Net Revenues possible; provided, however, that such maximum amount produced by such schedules of tolls need not exceed the Net Revenues sufficient to satisfy the requirements in paragraph (b) above.

Anything in the Master Indenture to the contrary notwithstanding, if the Authority shall comply with all recommendations of the Traffic Engineers (or such independent engineer or engineering firm or corporation as provided for in this Section) in respect of tolls, it will not constitute an Event of Default under the provisions of the Master Indenture even though the amount of the Net Revenues in any Fiscal Year shall be less than the amount required to satisfy the requirements of paragraph (b) above for such Fiscal Year. In the event of any such deficiency and regardless of any recommendations of the Traffic Engineers or compliance therewith by the Authority, the Trustee or the holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding may, however, and the Trustee shall, upon the written request of the holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding and upon being indemnified to its satisfaction, institute and prosecute in a court of competent jurisdiction an appropriate action to compel the Authority to revise the schedules of tolls in order to produce the amount of Net Revenues required to satisfy the requirements of paragraph (b) above. The Authority covenants that it will adopt and charge tolls in compliance with any final order, decree or judgment entered in any such proceeding, or any modification thereof.

The Authority further covenants that upon its making any request to the Traffic Engineers for their recommendations as to a revision of the schedules of tolls or upon the receipt of any such opinion or recommendations from the Traffic Engineers or upon the adoption by the Authority of any revised schedule of tolls, certified copies of any such request, recommendations or revised schedule of tolls so adopted will forthwith be filed with the Trustee and mailed by the Authority to all bondholders who shall have filed their names and addresses with the Secretary of the Authority for such purpose.

(d) Except as provided under the heading "Uniformity of Tolls" herein and in this Section, the Authority covenants that it will not effect any reduction in any rate of toll fixed for passage over portions of the System which are subject to tolls, unless it shall first obtain or certify as follows in connection with any action of the Authority authorizing such reduction:

(i) The Authority shall have obtained a certificate of a Consultant or Traffic Engineer setting forth estimates of Revenues and the Net Revenues pledged to the Bonds for the then current and each future Fiscal Year to and including the latest maturity of the Bonds, which may take into consideration, among other things, the additional use of the System projected to result from such reduction in the rate of toll and the estimated costs, deposits and expenses described in (ii) below, and a favorable recommendation from the Consultant or Traffic Engineer that such proposed reduction be placed in effect;

(ii) The certificate of a Consultant or Traffic Engineer described in (i) above shall be based in part on estimates of the Operating Expenses and deposits to the Operation and Maintenance Reserve Account prepared by the Authority and certified by an Authorized Officer of the Authority;

(iii) The certificate of a Consultant or Traffic Engineer described in (i) above shall be accompanied by a certificate of an Authorized Officer of the Authority setting forth:

(A) the Net Debt Service for the then current and each future Fiscal Year;

(B) that the estimated Net Revenues for the then current and each future Fiscal Year are not less than 1.50 times the Net Debt Service for such respective current or future Fiscal Year (as shown in subsection (A) of this subsection (iii)),

(C) that the Authority is not in default in the performance of any of the covenants, conditions, agreements or provisions contained in the Master Indenture, and

(D) that immediately prior to such proposed reduction the amount on deposit in the Debt Service Reserve Fund was equal to the Debt Service Reserve Requirement.

The following provisions shall take effect upon: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent thereto from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading "Supplemental Indentures Requiring Consent of Bondholders" herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to these provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such provisions will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

The Authority covenants:

(a) that it will continue in effect the present schedules of tolls for traffic using the System until such schedules shall be changed or revised as provided in the Master Indenture,

(b) that it shall establish and maintain tolls for traffic using the System at such levels, as shall, in the opinion of the Traffic Engineers from time to time, result in producing Revenues sufficient to provide an amount of Net Revenues for the System in each Fiscal Year during which Bonds are Outstanding, such that the aggregate for such period of Net Revenues and Dedicated Payments shall be at least equal to the greater of (i) one hundred twenty percent (120%) of Net Debt Service during such Fiscal Year with respect to all Bonds then Outstanding; or (ii) one hundred percent (100%) of Net Debt Service during such Fiscal Year plus amounts required to be on deposit in the Renewal and Replacement Fund, and

(c) that on or before the 1st day of each Fiscal Year, the Authority shall review the adequacy of its schedule of tolls with respect to the System to satisfy the requirements of this section for the next succeeding Fiscal Year. If such review, or report of Traffic Engineers provided in connection with such review or in accordance with any section of the Master Indenture, indicates that the schedules of tolls then in effect for traffic using the System are not producing Net Revenues sufficient to satisfy the requirements in paragraph (b) above in the succeeding Fiscal Year, it will request the Traffic Engineers to make recommendations as to a revision of the schedules of tolls in order to produce the maximum amount of Net Revenues possible and, upon receiving such recommendations, it will revise such schedules of tolls in order to produce the maximum amount of Net Revenues possible; provided, however, that such maximum amount produced by such schedules of tolls need not exceed the Net Revenues sufficient to satisfy the requirements in paragraph (b) above.

Anything in the Master Indenture to the contrary notwithstanding, if the Authority shall comply with all recommendations of the Traffic Engineers (or such independent engineer or engineering firm or corporation as provided for in this section) in respect of tolls, it will not constitute an Event of Default as described under the heading "Events of Default" herein even though the amount of the Net Revenues in any Fiscal Year shall be less than the amount required to satisfy the requirements of paragraph (b) above for such Fiscal Year. In the event of any such deficiency and regardless of any recommendations of the Traffic Engineers or compliance therewith by the Authority, the Trustee or the holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding may, however, and the Trustee shall, upon the written request of the holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding and upon being indemnified to its satisfaction, institute and prosecute in a court of competent jurisdiction an appropriate action to compel the Authority to revise the schedules of tolls in order to produce the amount of Net Revenues required to satisfy the requirements of paragraph (b) above. The

Authority covenants that it will adopt and charge tolls in compliance with any final order, decree or judgment entered in any such proceeding, or any modification thereof.

The Authority further covenants that upon its making any request to the Traffic Engineers for their recommendations as to a revision of the schedules of tolls or upon the receipt of any such opinion or recommendations from the Traffic Engineers or upon the adoption by the Authority of any revised schedule of tolls, certified copies of any such request, recommendations or revised schedule of tolls so adopted will forthwith be filed with the Trustee and mailed by the Authority to all bondholders who shall have filed their names and addresses with the Secretary of the Authority for such purpose.

(d) Except as provided under the heading "Uniformity of Tolls" herein and in this section, the Authority covenants that it will not effect any reduction in any rate of toll fixed for passage over portions of the System which are subject to tolls, unless it shall first obtain or certify as follows in connection with any action of the Authority authorizing such reduction:

- (i) The Authority shall have obtained a certificate of a Consultant or Traffic Engineer setting forth estimates of Revenues, the Net Revenues and Dedicated Payments, if any, pledged to the Bonds for the then current and each future Fiscal Year to and including the latest maturity of the Bonds, which may take into consideration, among other things, the additional use of the System projected to result from such reduction in the rate of toll and the estimated costs, deposits and expenses described in (ii) below, and a favorable recommendation from the Consultant or Traffic Engineer that such proposed reduction be placed in effect;
- (ii) The certificate of a Consultant or Traffic Engineer described in (i) above shall be based in part on estimates of the Operating Expenses and deposits to the Operation and Maintenance Reserve Account prepared by the Authority and certified by an Authorized Officer of the Authority;
- (iii) The certificate of a Consultant or Traffic Engineer described in (i) above shall be accompanied by a certificate of an Authorized Officer of the Authority setting forth:
  - (A) the Net Debt Service for the then current and each future Fiscal Year;
  - (B) that the estimated Net Revenues and Dedicated Payments for the then current and each future Fiscal Year are not less than 1.20 times the Net Debt Service for such respective current or future Fiscal Year (as shown in subsection (A) of this subsection (iii)),
  - (C) that the Authority is not in default in the performance of any of the covenants, conditions, agreements or provisions contained in the Master Indenture, and
  - (D) that immediately prior to such proposed reduction the amount on deposit in the Debt Service Reserve Fund was equal to the Debt Service Reserve Requirement. (Section 601)

### **Uniformity of Tolls**

The Authority covenants that tolls will be classified in a reasonable way to cover all traffic, so that the tolls may be uniform in application to all traffic falling within any reasonable class regardless of the status or character of any person, firm or corporation participating in the traffic, and that no reduced rate of toll will be allowed within any such class except that provision may be made for the use of commutation or other tickets or privileges based upon

frequency or volume or method of payment; and provided further that the Authority may revise or reclassify tolls to allow for special toll rates, discounts, temporary rates, one-way collection, congestion or peak time or variable rate pricing, removal or addition of tollhouses and plazas upon receipt by the Authority of a certificate of the Traffic Engineers stating that such action will not cause the Authority to fail to comply with the requirements of paragraph (b) under the heading "Covenants as to Tolls, Etc." herein. The Authority further covenants that no free vehicular passage will be permitted over portions of the System which are subject to tolls, except to vehicles of members, officers and employees of the Authority, to vehicles traveling on official business of the State Department of Transportation and the State Police, to emergency vehicles while conducting emergency services in the discretion of the Executive Director, to contractors and suppliers engaged by the Authority and to other vehicles during a state of emergency declared by the Governor of the State. (Section 602)

### **Annual Inspection of Project**

The Authority covenants that it will cause the Consulting Engineers employed by it under the provisions of the Master Indenture, among such other duties as may be imposed upon them by the Authority or by the Master Indenture, to make an inspection of the System at least once in each year and, on or before the first day of April in each Fiscal Year, to submit to the Authority a report setting forth with respect to the System (a) their findings whether the System has been maintained in good repair, working order and condition and (b) their recommendations as to:

- (i) the proper maintenance, repair and operation of the System during the ensuing Fiscal Year and an estimate of the amount of money necessary for such purposes;
- (ii) the insurance to be carried under the provisions of the Master Indenture.

Promptly after the receipt of such reports by the Authority, copies thereof shall be filed with the Trustee and mailed by the Authority to the Traffic Engineers and all bondholders who shall have filed their names and addresses with the Secretary of the Authority for such purpose.

The Authority further covenants that, if any such report of the Consulting Engineers shall set forth that the System has not been maintained in good repair, working order and condition, it will, promptly restore the System to good repair, working order and condition with all expedition practicable in accordance with the recommendations of the Consulting Engineers. (Section 603)

### **Annual Budget**

The Authority covenants that on or before the 1st day of May in each Fiscal Year it will prepare a preliminary budget for the ensuing Fiscal Year of (i) Operating Expenses, and (ii) the amount to be deposited to the credit of the Renewal and Replacement Fund with respect to the System for the ensuing Fiscal Year.

The Authority further covenants that on or before the tenth day of June in such Fiscal Year it will finally adopt the budget for the ensuing Fiscal Year of (i) Operating Expenses and (ii) the amount to be deposited to the credit of the Renewal and Replacement Fund with respect to the System for the ensuing Fiscal Year and (iii) the amounts and purposes for which moneys held for the credit of the Renewal and Replacement Fund shall be appropriated (herein sometimes called the "Annual Budget"). On or before the twentieth day of June in such Fiscal Year copies of the Annual Budget shall be filed with the Trustee and mailed by the Authority to the Consulting Engineers, the Traffic Engineers.

If for any reason the Authority shall not have adopted the Annual Budget before the first day of any Fiscal Year, the preliminary budget for such Fiscal Year, if approved by the Consulting Engineers, or if there is none so approved, the budget for the preceding Fiscal Year shall, until the adoption of the Annual Budget, be deemed to be in force and shall be treated as the Annual Budget under the provisions of the Master Indenture.

The Authority may at any time adopt an amended or supplemental Annual Budget for the remainder of the then current Fiscal Year, and when so approved the Annual Budget so amended or supplemented shall be treated as

the Annual Budget under the provisions of the Master Indenture. Copies of any such amended or supplemental Annual Budget shall be filed with the Trustee and mailed by the Authority to the Consulting Engineers and the Traffic Engineers.

The Authority further covenants that the Operating Expenses incurred in any Fiscal Year will not exceed the reasonable and necessary amount thereof, and that it will not expend any amount or incur any obligations for maintenance, repair and operation of the System in excess of the amounts provided for Operating Expenses in the Annual Budget, except amounts which may be paid from the Operating and Maintenance Reserve Account. Nothing contained in this section shall limit the amount the Authority may expend for Operating Expenses in any Fiscal Year provided any amounts expended therefor in excess of the amounts provided for Operating Expenses in the Annual Budget shall be received by the Authority from some source other than the Revenues, and the Authority shall not make any reimbursement therefor from Revenues. (Section 604)

### **Payment of Principal, Interest and Premium**

The Authority covenants that it will promptly pay the principal of, Redemption Price and the interest on every Bond issued under the provisions of the Master Indenture at the places, on the dates and in the manner provided in the Master Indenture. Except as otherwise provided in the Master Indenture, such principal, Redemption Price and, interest are payable solely from tolls and other Revenues derived from the ownership or operation of the System which tolls and other Revenues and other moneys to the extent provided in the Master Indenture are pledged to the payment thereof in the manner and to the extent particularly specified in the Master Indenture, and nothing in the Bonds or in the Master Indenture shall be construed as obligating the State or any political subdivision thereof to pay the Bonds or the interest thereon, except from Revenues of the System and such other moneys, or as pledging the faith and credit or taxing power of the State or any political subdivision thereof. (Section 605)

### **Use and Operation of System**

The Authority covenants that it will establish and enforce reasonable rules and regulations governing the use of the System and the operation thereof, that all conditions of employment and all compensation, salaries, fees and wages paid by it in connection with the maintenance, repair and operation of the System will be reasonable, that no more persons will be employed by it than are necessary, that all persons employed by it will be qualified for their respective positions, that it will maintain and operate the System in an efficient and economical manner, that, from the revenues of the System, it will at all times maintain the same in good repair and in sound operating condition and will make all necessary repairs, renewals and replacements, and that it will observe and perform all of the terms and conditions contained in the Act. (Section 606)

### **United States or State of Rhode Island May Pay to Maintain the System**

Notwithstanding any other provision of the Master Indenture but subject nevertheless at all times to the Authority's covenants contained under the heading "Covenants as to Tolls, Etc." herein, the Authority may permit the United States of America, the State or any of their agencies, departments or political subdivisions, to pay all or any part of the cost of constructing, maintaining, repairing and operating the System. (Section 607)

### **Employment of Consulting Engineers, Traffic Engineers and Accountants**

The Authority covenants that it will, for the purpose of performing any carrying out the duties imposed on the Consulting Engineers by the Master Indenture, employ an independent engineer or engineering firm or corporation having a nationwide and favorable reputation for skill and experience in such work, that it will, for the purpose of performing and carrying out the duties imposed on the Traffic Engineers by the Master Indenture, employ an independent engineer or engineering firm or corporation having a nationwide and favorable reputation for skill and experience in such work, and that it will, for the purpose of performing and carrying out the duties imposed on the Accountants by the Master Indenture, employ an independent firm of certified public accountants of recognized ability and national standing. (Section 608)

## **Insurance and Inspection of Insurance Policies**

The Authority covenants that it will insure and at all times keep the System insured with a responsible insurance company or companies against physical loss or damage however caused, with such exceptions as are ordinarily required by insurers of structures or facilities of similar type, in an amount that is the maximum probable loss as recommended by the Consulting Engineers to the extent such coverage is available at commercially reasonable rates.

The Authority covenants that it will at all times carry in a responsible insurance company or companies to the extent such coverage is available at commercially reasonable rates:

(a) use and occupancy insurance covering-loss of revenues from the System by reason of necessary interruption, total or partial, in the use thereof resulting from damage to or destruction of any part thereof however caused, with such exceptions as are ordinarily required by insurers carrying similar insurance, in such amount that is the maximum probable loss as recommended by the Traffic Engineers; and provided, further, that if at any time the Authority shall be unable to obtain such insurance to the extent above required, either as to the amount of such insurance or as to the risks covered thereby or as to the deductible period or amount, it will not constitute an Event of Default under the provisions of the Master Indenture if the Authority shall carry such insurance to the extent reasonably obtainable;

(b) such workers' compensation or employers' liability insurance as may be required by law and such public liability, property damage and other insurance as the Insurance Consultant may recommend.

The Authority may establish certain minimum levels of insurance for which the Authority may self-insure. Such minimum levels of insurance shall be in amounts as recommended in writing by an insurance consultant who is of favorable reputation and experience and is qualified to survey risks and to recommend insurance coverage for public entities engaged in operating facilities similar to those comprising the System.

All insurance policies referred to in this section shall be open at all reasonable times to inspection by the Trustee, the bondholders and their agents and representatives. A complete description of all such policies shall be furnished annually by the Authority to the Trustee together with a certificate of an Authorized Representative that the Authority's insurance coverage materially complies with the requirements for the Master Indenture. The Trustee shall be named as an additional insured with respect to all policies of insurance required by this section other than workers' compensation insurance. All policies required under this section shall provide for at least 30 days' notice of cancellation to the Authority and the Trustee.

The Authority further covenants that, immediately after any substantial damage to or destruction of any part of the System, it will cause the Consulting Engineers to prepare plans and specifications or repairing, replacing or reconstructing the damaged or destroyed property (either in accordance with the original or a different design) and an estimate of the cost thereof, and to file copies of such estimate with the Authority.

The Net Proceeds of any casualty, whether from insurance or self-insurance, shall be applied as set forth under the heading "Damage, Destruction or Condemnation" herein. The Net Proceeds of all insurance covering loss of Revenues shall be deposited to the credit of the Revenue Fund. (Section 609)

## **Damage, Destruction or Condemnation**

If the System or portion thereof is destroyed or damaged by fire or other casualty, or title to, or the temporary use of the System or any portion thereof shall be taken under the exercise of the power of eminent domain, the Authority shall cause the Net Proceeds of any insurance or the Net Proceeds of any payment made in connection with a self-insurance election, or the Net Proceeds of any claim or condemnation award to be remitted to the Trustee to be applied to the prompt repair, restoration or replacement of the System. Any such Net Proceeds received by the Trustee shall be deposited in the Construction Fund and applied by the Trustee toward the payment of the Cost of such repair, restoration or replacement, utilizing the same requisition process set forth in the Master Indenture for the payment of the Cost of a System Project. If the Net Proceeds are sufficient for such purpose, the

balance remaining shall be transferred to the credit of the Revenue Fund. If the Net Proceeds are insufficient for such purpose, such deficiency may be supplied out of any available monies in the Revenue Fund. (Section 610)

### **Accurate Records; Annual Audits**

The Authority covenants that it will keep accurate records in which complete and correct entries will be made of its transactions relating to the System and the Funds and Accounts established by the Master Indenture. The Authority will also keep accurate records of the daily tolls and other revenues collected, of the number and class of vehicles using the System, and of the application of such tolls and other revenues. Such records shall be open at all reasonable times to the inspection by the bondholders and their agents and representatives.

The Authority further covenants that promptly after the close of each Fiscal Year it will cause an audit to be made of its books and accounts relating to the System for the preceding Fiscal Year by the Accountants. Within one hundred twenty (120) days after the close of each Fiscal Year reports of each such audit shall be filed with the Authority and the Trustee, and copies of such reports shall be mailed by the Authority to the Consulting Engineers, the Traffic Engineers and all bondholders who shall have filed their names and addresses with the Secretary of the Authority for such purpose. Each such audit report shall be prepared in accordance with generally accepted auditing standards and shall set forth in respect of the preceding Fiscal Year the same matters as are required above and the findings of such Accountants as to whether the moneys received by the Authority under the provisions of the Master Indenture during such Fiscal Year have been applied in accordance with the provisions of the Master Indenture. Such audit reports shall be open at all reasonable times to the inspection of the owners of any Bonds and their agents and representatives.

The cost of the audits referred to in this section shall be treated as a part of the Operating Expenses of the System. (Section 612)

### **Accounts and Reports**

The Authority covenants that all the accounts and records of the Authority will be kept in accordance with generally accepted accounting principles for governmental entities consistent with the provisions of the Master Indenture. (Section 613)

### **Covenant Against Sale or Encumbrance; Exceptions**

The following provisions shall apply until: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent to the alternate provisions set forth below, from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading "Supplemental Indentures Requiring Consent of Bondholders" herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to such provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such provisions will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

Except as permitted by this Section and as otherwise permitted in the Master Indenture, the Authority covenants that it will not sell or otherwise dispose of or encumber the System or any part thereof. The Authority may, however, from time to time, sell any machinery, fixtures, apparatus, tools, instruments or other property acquired by the Authority in connection with the System, if the Authority by resolution shall determine that such property is no longer needed or no longer useful in connection with the construction or the maintenance and operation of the System, and the proceeds thereof shall be applied to the replacement of the property so sold or disposed of or to the improvement of any remaining properties or shall be deposited to the credit of such Fund as the Authority may determine.

Notwithstanding the foregoing, the Authority may from time to time permanently abandon the use of, sell, trade or otherwise dispose of any property forming a part of the System, but only if there shall be filed with the Authority prior to such abandonment, sale, trade or disposal:

(a) a certificate of an Authorized Officer of the Authority stating that no Event of Default has occurred and is continuing under the Master Indenture;

(b) a certificate of the Consulting Engineers opining that (i) the Revenues for the next succeeding twelve (12) months, after giving effect to such abandonment, sale, trade or disposal and any replacement, and after any adjustments to reflect changes in the schedule of tolls in effect on the date of such certificate, is anticipated to be sufficient in all respects to comply with the provisions set forth under the heading "Covenants as to Tolls, Etc." herein, and (ii) the amount of Net Revenues projected in each of the next five (5) Fiscal Years, after giving effect to such abandonment, sale, trade or disposal and any replacement, and after any adjustments to reflect changes in the schedule of tolls projected for such five (5) Fiscal Years, is not less than one hundred twenty-five percent (125%) of Net Debt Service for such five (5) Fiscal Years; and

(c) an opinion of Bond Counsel with expertise in the field of tax-exempt municipal finance, that such abandonment, sale, trade or disposal will not impair the exclusion from gross revenues for federal income tax purposes then applicable to the interest on any Bonds.

The proceeds of any disposition authorized by the Consulting Engineer's certificate as described above shall be applied as stated therein or, if not so stated, to the replacement of the property so sold or disposed of or to the improvement of any remaining properties or shall be deposited to the credit of such Fund or Account as the Authority may determine. Any property acquired such replacement shall become a part of the System subject to the provisions of the Master Indenture.

Nothing in this Section shall limit the power of the Authority to enter into any sale, lease or lease-purchase of the System or to enter into contracts generally referred to as lease-leaseback, like kind exchange and sale-leaseback agreements in connection with the system with any other governmental or private entity, provided such sale, lease or lease-purchase is subject to the terms of the Master Indenture and does not adversely impair the amount or pledge of Net Revenues and amounts in the Funds and Accounts available to Bondholders as set forth in the Master Indenture. Nothing in this Section shall limit the power of the Authority to enter into operating agreements with governmental or private entities, provided such agreements are consistent with and subject to the Master Indenture and the Authority obtains an opinion of counsel with expertise in the field of tax-exempt municipal finance concluding that such agreement will not adversely impair the exclusion from gross revenue for federal income tax purposes then applicable to the interest on any Bonds.

The following provisions shall take effect upon: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent thereto from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading "Supplemental Indentures Requiring Consent of Bondholders" herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to these provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such provisions will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

Except as permitted by this section and as otherwise permitted in the Master Indenture, the Authority covenants that it will not sell or otherwise dispose of or encumber the System or any part thereof. The Authority may, however, from time to time, sell any machinery, fixtures, apparatus, tools, instruments or other property acquired by the Authority in connection with the System, if the Authority by resolution shall determine that such property is no longer needed or no longer useful in connection with the construction or the maintenance and operation of the System, and the proceeds thereof shall be applied to

the replacement of the property so sold or disposed of or to the improvement of any remaining properties or shall be deposited to the credit of such Fund as the Authority may determine.

Notwithstanding the foregoing, the Authority may from time to time permanently abandon the use of, sell, trade or otherwise dispose of any property forming a part of the System, but only if there shall be filed with the Authority prior to such abandonment, sale, trade or disposal:

(a) a certificate of an Authorized Officer of the Authority stating that no Event of Default has occurred and is continuing under the Master Indenture;

(b) a certificate of the Consulting Engineers stating that (i) the amount of Revenues and Dedicated Payments, if any, for the next succeeding twelve (12) months, after giving effect to such abandonment, sale, trade or disposal and any replacement, and after any adjustments to reflect changes in the schedule of tolls in effect on the date of such certificate, is anticipated to be sufficient in all respects to comply with the provisions set forth under the heading "Covenants as to Tolls, Etc." herein, and (ii) the amount of Net Revenues and Dedicated Payments, if any, projected in each of the next five (5) Fiscal Years, after giving effect to such abandonment, sale, trade or disposal and any replacement, and after any adjustments to reflect changes in the schedule of tolls projected for such five (5) Fiscal Years, is not less than one hundred twenty percent (120%) of Net Debt Service for such five (5) Fiscal Years; and

(c) an opinion of Bond Counsel with expertise in the field of tax-exempt municipal finance, that such abandonment, sale, trade or disposal will not impair the exclusion from gross revenues for federal income tax purposes then applicable to the interest on any Bonds.

The proceeds of any disposition authorized by the Consulting Engineer's certificate as described above shall be applied as stated therein or, if not so stated, to the replacement of the property so sold or disposed of or to the improvement of any remaining properties or shall be deposited to the credit of such Fund or Account as the Authority may determine. Any property acquired such replacement shall become a part of the System subject to the provisions of the Master Indenture.

Nothing in this section shall limit the power of the Authority to enter into any sale, lease or lease-purchase of the System or to enter into contracts generally referred to as lease-leaseback, like kind exchange and sale-leaseback agreements in connection with the system with any other governmental or private entity, provided such sale, lease or lease-purchase is subject to the terms of the Master Indenture and does not adversely impair the amount or pledge of Net Revenues and amounts in the Funds and Accounts available to Bondholders as set forth in the Master Indenture. Nothing in this section shall limit the power of the Authority to enter into operating agreements with governmental or private entities, provided such agreements are consistent with and subject to the Master Indenture and the Authority obtains an opinion of counsel with expertise in the field of tax-exempt municipal finance concluding that such agreement will not adversely impair the exclusion from gross revenue for federal income tax purposes then applicable to the interest on any Bonds. (Section 614)

### **Covenants with Credit Providers and Counterparties and Providers of Qualified Swap Agreements**

Provided that no such covenant shall conflict with any covenant set forth in the Master Indenture, the Authority may make such covenants as it may in its sole discretion determine to be appropriate with any Credit Provider that shall agree to insure or to provide a Credit Facility for Bonds of any one or more Series that shall enhance the security or the value of such Bonds and thereby reduce the Principal and Interest requirements on such Bonds and with any Counterparty under a Qualified Swap Agreement and any other party contracting with the Authority in connection with a Qualified Swap Agreement. Such covenants may be set forth in or provided for by the applicable Supplemental Indenture and shall be binding on the Authority, the Trustee, the Bond Registrar, the Paying Agents, the Depositories and all the owners of Bonds the same as if such covenants were set forth in full in the Master Indenture. (Section 615)

## **Covenant as to Compliance with Constitution and Laws**

The Authority covenants that upon the issuance of any Bonds under the Master Indenture all conditions, acts and things required by the Constitution and laws of the State of Rhode Island and by the Act or the Master Indenture to exist, to have happened and to have been performed precedent to or in the issuance of such bonds shall exist, have happened and have been performed. (Section 616)

## **Tax Covenants**

Except to the extent modified with respect to any Series of Bonds in the applicable Supplemental Indenture, and except where the Authority has issued Taxable Bonds, the Authority covenants as follows:

(a) The Authority will not knowingly make use of the proceeds of any Series of Bonds, or permit any use of the System, or take any action or permit any other action to be taken with respect to the System, that would (i) result in the Bonds' being classified as "arbitrage bonds" within the meaning of Section 148 of the Code, or (ii) affect adversely the exclusion from gross income of Interest on such Series of Bonds for federal income tax purposes and, if applicable, the non-tax preference status of such Interest for federal alternative minimum income tax purposes.

(b) The Authority shall comply with covenants with respect to the use of proceeds of Bonds and the use of the System as provided in the applicable Supplemental Indenture or other document.

(c) This section shall survive the defeasance of Outstanding Bonds. (Section 617)

## **Addition of Non-System Projects to the System**

The following provisions shall apply until: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent to the alternate provisions set forth below, from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading "Supplemental Indentures Requiring Consent of Bondholders" herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to such provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such provisions will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

Non-System Projects owned and controlled by the Authority may, by resolution of the Authority, be designated and become part of the System for purposes of the Master Indenture if there shall first have been obtained and filed with the Authority a certificate of the Consulting Engineers to the effect that for any period of twelve (12) consecutive calendar months out of the fifteen (15) consecutive calendar months immediately preceding such designation, the revenue received by the Authority with respect to such Non-System Project (that is, those payments received by the Authority with respect to such Non-System Project that would have constituted Revenues had such Non-System Project been part of the System) equaled or exceeded the aggregate for such period of (i) the Non-System Project Operating Expenses of such Non-System Project (plus additional cost of operation, cost of maintenance and administrative expenses and other costs, expenses or payments that would have been incurred by the Authority had such Non-System Project been part of the System, as estimated by such Consulting Engineers) and (ii) a reasonable renewal and replacement reserve deposit with respect to such Non-System Project, as determined by such Consulting Engineers.

Upon the filing of such certificate of the Consulting Engineers and the adoption of a resolution by the Authority designating such Non-System Projects as part of the System, such Non-System Projects shall be deemed and considered for all purposes of the Master Indenture as a part of the System.

The following provisions of shall take effect upon: (A) the earlier of: (i) the retirement, defeasance or redemption in whole of the Series 2003 A Bonds then Outstanding; or (ii) the obtaining of consent thereto from the required percentage of Holders of Bonds then Outstanding, determined pursuant to the provisions set forth under the heading “Supplemental Indentures Requiring Consent of Bondholders” herein, provided that, for such purposes, the Holders of the Series 2010 A Bonds, which by their purchase of the Series 2010 A Bonds have consented to these provisions, shall not be included in any such calculation; and (B) the delivery of an opinion of Bond Counsel to the Trustee to the effect that such provisions will not: (i) adversely affect the exclusion of Interest on the Bonds then Outstanding from gross income for federal income tax purposes (if such Bonds were issued on a tax-exempt basis), or (ii) cause the Bonds then Outstanding to be treated as reissued under Section 1001 of the Code (if such Bonds were issued on a taxable basis):

Non-System Projects owned and controlled by the Authority may, by resolution of the Authority, be designated and become part of the System for purposes of the Master Indenture if there shall first have been obtained and filed with the Authority a certificate of the Consulting Engineers to the effect that for the current and each future Fiscal Year through and including the fifth (5<sup>th</sup>) full Fiscal Year after such designation, the estimated revenue to be received by the Authority with respect to such Non-System Project (that is, those payments estimated to be received by the Authority with respect to such Non-System Project that would constitute: (1) Revenues if such Non-System Project was part of the System and (2) Dedicated Payments, if any) is equal to or exceeds the aggregate for such period of (i) the Non-System Project Operating Expenses of such Non-System Project (plus additional cost of operation, cost of maintenance and administrative expenses and other costs, expenses or payments that would be incurred by the Authority if such Non-System Project was part of the System, as estimated by such Consulting Engineers); (ii) one hundred twenty percent (120%) of Maximum Annual Debt Service, if any, attributable to such Non-System Project if such Non-System Project were part of the System, as estimated by such Consulting Engineers); and (iii) a reasonable renewal and replacement reserve deposit with respect to such Non-System Project, as determined by such Consulting Engineers.

In calculating such ratios: (i) for purposes of estimating the revenues of such Non-System Project, Non-System Project Operating Expenses, Net Debt Service and the reasonable renewal and replacement reserve deposit, the Authority shall rely on estimates of the Traffic Engineers, which estimates may include additional revenues, including, but not limited to those revenues derived from projected toll increases with respect to Non-System Projects and planned openings of any additional Non-System Projects, deemed feasible by the Traffic Engineers; (ii) for purposes of estimating Non-System Project Operating Expenses, budgeted or projected deposits to the Renewal and Replacement Fund and the costs and completion dates of Projects and Non-System Projects, the Authority shall rely on estimates of the Consulting Engineers; and (iii) for purposes of estimating Qualified Subsidy Payments and additional Dedicated Payments, if any, the Authority may rely on a certificate of an Authorized Officer, which certificate shall set forth the basis for such estimates.

Upon the filing of such certificate of the Consulting Engineers and the adoption of a resolution by the Authority designating such Non-System Projects as part of the System, such Non-System Projects shall be deemed and considered for all purposes of the Master Indenture as a part of the System. (Section 618)

### **Indebtedness to Finance Non-System Projects**

The Authority shall not issue any indebtedness secured by a pledge of Net Revenues to finance Non-System Projects, provided, however, nothing contained in the Master Indenture shall prohibit the Authority from issuing Subordinated Obligations to finance Non-System Projects. (Section 619)

### **Annual Certificate**

The Authority shall deliver to the Trustee, within one hundred twenty (120) days after the close of each Fiscal Year an Officer’s Certificate stating whether or not, having examined the appropriate records and records of the Authority and having made due inquiry of its officers and employees and to the best knowledge of such officer, the Authority is in default in the performance of any of the terms and conditions of the Master Indenture and, if the Authority shall be in default, specifying all such defaults and the nature and status thereof of which such officer may have knowledge. (Section 620)

## **Qualified Subsidy Payments**

The Authority may designate Qualified Subsidy Payments and pledge such Qualified Subsidy Payments to the payment of debt service on all Outstanding Bonds, or any Series of Bonds, pursuant to a Supplemental Indenture or by resolution of the Authority. All Qualified Subsidy Payments so pledged and designated shall be deposited upon receipt in the Debt Service Fund as set forth in the Supplemental Indenture or resolution of the Authority. The Authority may in its discretion reverse or modify any pledge and designation of Qualified Subsidy Payments by a further resolution, and any determination to deposit Qualified Subsidy Payments in the Debt Service Fund may be reversed or modified by written direction to the Trustee from an Authorized Officer, provided that such Authorized Officer shall certify to the Trustee that following such reversal or modification the Authority will meet the test for incurring one dollar of Additional Bonds set forth under the heading "Additional Bonds" herein. (Section 621)

## **Dedicated Payments**

The Authority may designate Dedicated Payments and pledge such Dedicated Payments to the Revenue Fund pursuant to a Supplemental Indenture or by resolution of the Authority. All Dedicated Payments so pledged and designated shall be deposited upon receipt in the Revenue Fund. The Authority may in its discretion reverse or modify any pledge and designation of Dedicated Payments by a further resolution, and any determination to deposit Dedicated Payments in the Revenue Fund may be reversed or modified by written direction to the Trustee from an Authorized Officer, provided that such Authorized Officer shall certify to the Trustee that following such reversal or modification the Authority will meet the test for incurring one dollar of Additional Bonds set forth under the heading "Additional Bonds" herein. (Section 622)

## **Events of Default**

Each of the following is an "Event of Default" under the Indenture:

(a) if payment in respect of any installment of Interest on any Bond shall not be made in full when the same becomes due and payable;

(b) if payment in respect of the Principal Amount of or the Redemption Price on any Bond shall not be made in full when the same becomes due and payable, whether at maturity or by proceedings for redemption or otherwise;

(c) if the Authority shall fail to observe or perform any covenant or agreement on its part under the Master Indenture or in the Bonds for a period of sixty (60) days after the date on which written notice of such failure, requiring the same to be remedied, shall have been given to the Authority by the Trustee, or to the Authority and the Trustee by the holders of at least twenty-five percent (25%) in aggregate principal amount of Bonds Outstanding; provided, however, that if the breach of covenant or agreement is one which cannot reasonably, as evidenced by an Officer's Certificate delivered to the Trustee, be completely remedied within the sixty (60) days after written notice has been given, it shall not be an Event of Default with respect to such Series as long as the Authority has taken active steps within the sixty (60) days after written notice has been given to remedy the failure and is diligently pursuing such remedy;

(d) if the Authority shall institute proceedings to be adjudicated as bankrupt or insolvent, or shall consent to the institution of bankruptcy or insolvency proceedings against it, or shall file a petition or answer or consent seeking reorganization or relief under the federal Bankruptcy Code or any other similar applicable federal or state law, or shall consent to the filing of any such petition or to the appointment of a receiver, liquidator, assignee, trustee or sequestrator (or other similar official) of the Authority or of any substantial part of its property, or shall make an assignment for the benefit of creditors, or shall admit in writing its inability to pay its debts generally as they become due. (Section 701)

## **No Acceleration**

There shall be no rights of acceleration with respect to the Bonds. (Section 702)

## Remedies and Enforcement of Remedies

(a) Subject to the provisions set forth under the heading “Credit Providers to Control Remedies” herein, upon the occurrence and continuance of any Event of Default with respect to a Series of Bonds, the Trustee may or, upon the written request of the Holders of not less than twenty-five percent (25%) in an aggregate Principal Amount of the Bonds of such Series, together with indemnification of the Trustee to its satisfaction therefore shall, proceed forthwith to protect and enforce its rights and the rights of the Bondholders under the Master Indenture and under the Act and such Bonds by such suits, actions or proceedings, as the Trustee, being advised by counsel, shall deem expedient, including but not limited to:

- (i) Civil action to recover money or damages due and owing;
- (ii) Civil action to enjoin any acts or things, which may be unlawful or in violation of the rights of the Holders of such Bonds; and
- (iii) Enforcement of any other rights of such Bondholders conferred by law, including the Act, or by the Master Indenture, including, without limitation, by suit, action, injunction, mandamus or other proceedings to enforce and compel the performance by the Authority of actions required by the Act or the Master Indenture, including the fixing, changing and collection of the fees or other charges.

(b) Subject to the provisions set forth under the heading “Credit Providers to Control Remedies” herein, regardless of the happening of an Event of Default, the Trustee, if requested in writing by the Holders of not less than twenty-five percent (25%) in aggregate Principal Amount of the Bonds, shall upon being indemnified to its satisfaction therefore, institute and maintain such suits and proceedings as it may be advised shall be necessary or expedient (i) to prevent any impairment of the security under the Master Indenture by any acts or omissions to act which may be unlawful or in violation of the Master Indenture, or (ii) to preserve or protect the interests of the Holders, provided that such request is in accordance with law and the provisions of the Master Indenture and, in the sole judgment of the Trustee, is not unduly prejudicial to the interest of the Holders of Bonds of each Series not making such request.

(c) Notwithstanding anything else in this section, the remedies in the Master Indenture provided for with respect to reaching Funds or Accounts under the Master Indenture shall be limited to the Funds or Accounts under the Master Indenture pledged to the applicable Series of Bonds with respect to which an Event of Default exists. (Section 703)

## Application of Revenues and Other Moneys After Default

During the continuance of an Event of Default with respect to any Series of Bonds, all moneys held and received by the Trustee with respect to such Series of Bonds pursuant to any right given or action taken under the provisions of the Master Indenture with respect to defaults shall, after payment from such moneys to the extent thereof of the costs and expenses of the proceedings which result in the collection of such moneys and of the fees, expenses including reasonable attorneys fees and advances incurred or made by the Trustee with respect thereto, be applied according to the accrued debt service deposits or payments with respect to each such Series as follows provided, however, that any money drawn under a Credit Facility, if any, and amounts held in Accounts in the Bond Fund and the Debt Service Reserve Fund shall be applied solely to pay Interest or the Principal Amount, as applicable, on the related Series of Bonds:

- (a) Unless the Principal Amount of all such Outstanding Bonds shall have become due and payable:

First: To the payment to the person entitled thereto of all installments of Interest then due on such Bonds in the order of maturity of such installments, and, if the amount available shall not be sufficient to pay in full any installment or installments maturing on the same date, then to the payment thereof, ratably, according to the amounts due thereon to the persons entitled thereto, without any discrimination or preference; and

Second: To the payment to the persons entitled thereto of the unpaid Principal Amounts of any Bonds which shall have become due (other than Bonds previously called for redemption for the payment of which moneys are held pursuant to the provisions of the Master Indenture), whether at maturity or by proceedings for redemption or otherwise pursuant to the terms of the Supplemental Indenture providing for the issuance of such Bond, in the order of their due dates, and if the amounts available shall not be sufficient to pay in full all the Bonds of such Series due on any date, then to the payment thereof, ratably, according to the Principal Amounts due on such date, to the persons entitled thereto, without any discrimination or preference.

(b) If the Principal Amount of all such Outstanding Bonds shall have become due and payable, to the payment of the Principal Amount and Interest then due and unpaid upon such Bonds without preference or priority of Principal Amount over Interest or of Interest over Principal Amount, or of any installment of Interest over any other installment of Interest, or of any such Bond over any other such Bond, ratably, according to the amounts due respectively for Principal Amount and Interest, to the persons entitled thereto without any discrimination or preference.

Whenever moneys are to be applied by the Trustee pursuant to the provisions of this section, such moneys shall be applied by it at such times, and from time to time, as the Trustee shall determine in accordance with the Master Indenture, having due regard for the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. Whenever the Trustee shall apply such moneys, it shall fix the date (which shall be an Interest Payment Date unless it shall deem another date more suitable) upon which such application is to be made and upon such date Interest on the Principal Amounts to be paid on such dates shall cease to accrue if so paid. The Trustee shall give such notice as it may deem appropriate in accordance with the Master Indenture of the deposit with it of any such money and of the fixing of any such date, and shall not be required to make payment to the Holder of any Bond until such Bond shall be presented to the Trustee for appropriate endorsement of any partial payment or for cancellation or destruction if fully paid.

Whenever all Bonds and Interest thereon have been paid under the provisions of this section and all expenses and charges of the Trustee have been paid, and each Credit Provider, if any, has been reimbursed for all amounts drawn under the applicable Credit Facility, if any, and used to pay the Principal Amount, Redemption Premium, if any, and Interest on the Bonds and no Credit Facility shall be outstanding, any balance remaining shall be paid first to such Credit Provider to the extent any other amounts, including fees, are then owing to such Credit Provider under the applicable Reimbursement Agreement, then the balance shall be paid to the Authority or as a court of competent jurisdiction may direct. (Section 704)

### **Remedies Vested in Trustee**

All rights of action (including the right to file proof of claims) under the Master Indenture or under any of the Bonds may be enforced by the Trustee without the possession of any of the Bonds or the production thereof in any trial or other proceedings relating thereto. Any such suit or proceeding instituted by the Trustee may be brought in its name as the Trustee without the necessity of joining as plaintiffs or defendants any Holders of the Bonds. Subject to the provisions set forth under the heading "Application of Revenues and Other Moneys After Default" herein, any recovery or judgment shall be for the equal benefit of the Holders of the Outstanding Bonds. (Section 706)

### **Control of Proceedings**

(a) If an Event of Default shall have occurred and be continuing, the Holders of a majority in aggregate Principal Amount of Bonds of such Series then Outstanding shall have the right, at any time, by an instrument in writing executed and delivered to the Trustee to direct the method and place of conducting any proceeding to be taken with respect to funds or assets solely securing such Series in connection with the enforcement of the terms and conditions of the Master Indenture, provided that such direction is in accordance with law and the provisions of the Master Indenture (including indemnity to the Trustee as provided in the Master Indenture) and, in the sole judgment of the Trustee, is not unduly prejudicial to the interests of Bondholders of each Series of Bonds not joining-in such direction and provided further than nothing in this section shall impair the right

of the Trustee, in its discretion, to take any other action under the Master Indenture which it may deem proper and which is not inconsistent with such direction by Bondholders.

(b) If an Event of Default with respect to all Series of Bonds shall have occurred and be continuing, the Holders of a majority in aggregate Principal Amount of all Bonds then Outstanding shall have the right, at any time, by any instrument in writing executed and delivered to the Trustee to direct the method and place of conducting any proceeding to be taken with respect to Net Revenues or other assets securing all Bonds in connection with enforcement of the terms and conditions of the Master Indenture, provided that such direction is in accordance with law and the provisions of the Master Indenture (including indemnity to the Trustee as provided in the Master Indenture) and, in the sole judgment of the Trustee, is not unduly prejudicial to the interests of Bondholders not joining in such direction and provided further that nothing in this section shall impair the right of the Trustee, in its discretion, to take any other action under the Master Indenture which it may deem proper in accordance with the Master Indenture and which is not inconsistent with such direction by Bondholders. (Section 707)

### **Individual Bondholder Action Restricted**

(a) No Holder of any Bond of a Series shall have any right to institute any suit, action or proceeding in equity or at law for the enforcement of the Master Indenture or for the execution of any trust under the Master Indenture or for any remedy under the Master Indenture unless:

- (i) An Event of Default has occurred with respect to such Series (A) under subsection (a) or (b) under “Events of Default” herein of which the Trustee is deemed to have notice, or (B) under subsection (c) or (d) “Events of Default” herein as, to which a Responsible Officer has actual knowledge or as to which the Trustee has been notified in writing by the Authority;
- (ii) The Holders of at least twenty-five percent (25%) in aggregate Principal Amount of Bonds then Outstanding shall have made written request to the Trustee to exercise the powers granted in the Master Indenture or to institute such action, suit or proceeding in its own name;
- (iii) such Bondholders shall have offered the Trustee indemnity as provided in the Master Indenture;
- (iv) the Trustee shall have failed or refused to exercise the powers granted in the Master Indenture or to institute such action, suit or proceedings in its own name for a period of sixty (60) days after receipt by it of such request and offer of indemnity; and
- (v) during such 60-day period no direction inconsistent with such written request has been delivered to the Trustee by the Holders of a majority in aggregate Principal Amount of Bonds of such Series then Outstanding in accordance with the provisions set forth under the heading “Control of Proceedings” herein.

(b) No one or more Holders of Bonds of such Series shall have any right in any manner whatsoever to affect, disturb or prejudice the security of the Master Indenture or to enforce any right under the Master Indenture except in the manner provided in the Master Indenture and for the equal benefit of the Holders of all Bonds of such Series then Outstanding.

(c) Nothing contained in the Master Indenture shall affect or impair, or be construed to affect or impair, the right of the Holder of any Bond of such Series (i) to receive payment of the Principal Amount of or Interest on such Bond on or after the due date thereof or (ii) to institute suit for the enforcement of any such payment on or after such due date; provided, however, no Holder of any Bond of such Series may institute or prosecute any such suit or enter judgment therein if, and to the extent that, the institution or prosecution of such suit or the entry of judgment therein would, under applicable law, result in the surrender, impairment, waiver or loss of the lien of the Master Indenture on the moneys, funds and properties pledged under the Master Indenture for the equal and ratable benefit of all Holders of Bonds of such Series. (Section 708)

## **Waiver of Event of Default**

(a) No delay or omission of the Trustee, of any Holder of the Bonds or, if provided by Supplemental Indenture, any Credit Provider, to exercise any right or power accruing upon any Event of Default shall impair any such right or power or shall be construed to be a waiver of any such Event of Default or an acquiescence therein. Every power and remedy given by the Master Indenture to the Trustee, the Holders of the Bonds and, if provided by Supplemental Indenture, any Credit Provider, respectively, may be exercised from time to time and as often as may be deemed expedient by them.

(b) The Trustee, with the consent of any Credit Provider, if provided by Supplemental Indenture (provided, however, that such Credit Provider's consent may be required only in connection with an Event of Default on a Series of Bonds with respect to which such Credit Provider is providing a Credit Facility), may waive any Event of Default with respect to the Bonds, that in its opinion, shall have been remedied at any time, regardless of whether any suit, action or proceeding has been instituted, before the entry of final judgment or decree in any suit, action or proceeding instituted by it under the provisions of the Master Indenture, or before the completion of the enforcement of any other remedy under the Master Indenture.

(c) Notwithstanding anything contained in the Master Indenture to the contrary, the Trustee, upon the written request of (i) the Credit Provider, if any, if provided by Supplemental Indenture, with respect to an Event of Default which applies only to the related Series of Bonds, (ii) Holders of at least a majority of the aggregate Principal Amount of Bonds of a Series then Outstanding with respect to any Event of Default which applies only to such Series, with the consent of the applicable Credit Provider, if any, if provided by Supplemental Indenture or (iii) Holders of at least a majority of the aggregate Principal Amount of Bonds then Outstanding with respect to any Event of Default which applies to all Bonds, shall waive any such Event of Default under the Master Indenture and its consequences; provided, however, that a default in the payment of the Principal Amount of, Redemption Premium, if any, or Interest on any such Bond, when the same shall become due and payable by the terms thereof or upon call for redemption, may not be waived without the written consent of the Holders of all the Bonds then Outstanding of such Series to which an event of Default applies and any consent of the applicable Credit Provider, if any, if provided by Supplemental Indenture.

(d) In case of any waiver by the Trustee of an Event of Default under the Master Indenture, the Authority, the Trustee, the Bondholders and, if provided by Supplemental Indenture, the Credit Provider shall be restored to their former positions and rights under the Master Indenture, respectively, but no such waiver shall extend to any subsequent or other Event of Default or impair any right consequent thereon. The Trustee shall not be responsible to any one for waiving or refraining from waiving any Event of Default in accordance with this section. (Section 710)

## **Credit Providers to Control Remedies**

While a Credit Facility with respect to a Series of Bonds is in effect, notwithstanding anything else in the Master Indenture to the contrary, a Supplemental Indenture may provide that no right, power or remedy under the Master Indenture with respect to such Series of Bonds may be pursued without the prior written consent of such Credit Provider and a Supplemental Indenture may provide that the Credit Provider shall have the right to direct the Trustee to pursue any right, power or remedy available under the Master Indenture with respect to any assets available under the Master Indenture which secure the Series of Bonds secured by such Credit Facility, including, without limitation, any right, power or remedy with respect to Net Revenues or other assets securing all Bonds on a pro rata basis. (Section 713)

## **Trustee Not Required to Take Action Unless Indemnified**

The Trustee neither shall be required to make any investigation, nor institute any suit or action or other proceeding in which it may be a defendant, nor to take any steps to enforce its rights and expose it to liability, nor shall the Trustee be deemed liable for failure to take any such action, unless and until it shall have been indemnified, to its reasonable satisfaction, against any and all reasonable costs, expenses, outlays, counsel and other fees, other disbursements, including its own reasonable fees and against all liability and damages. The Trustee nevertheless, may begin suit, or appear in and defend suit, or do anything else which in its judgment is proper to be done by it as

the Trustee, without prior assurance of indemnity, and in such case the Authority shall reimburse the Trustee for all reasonable costs, expenses, outlays, counsel and other fees, and other reasonable disbursements including its own fees, and for all liability and damages suffered by the Trustee in connection therewith, except for the Trustee's own negligent action, its own negligent failure to act or its own willful misconduct. If the Trustee begins, appears in or defends such a suit, the Trustee shall give reasonably prompt notice of such action to the Authority and shall give such notice prior to taking such action if possible. If the Authority shall fail to make such reimbursement, the Trustee may reimburse itself for costs and expenses in accordance with the provisions set forth under the heading "Application of Revenues and Other Moneys After Default" herein.

### **Removal and Resignation of Trustee**

The Trustee may resign at any time. Written notice of such resignation shall be given to the Authority and such resignation shall take effect upon the appointment and qualification of a successor Trustee. In the event a successor Trustee has not been appointed and qualified within sixty (60) days after the date notice of resignation is given, the Trustee, the Authority may apply to any court of competent jurisdiction for the appointment of a successor Trustee to act until such time as a successor is appointed as provided in this section.

The Trustee may be removed at any time by written notice: (i) from the Holders of a majority in principal amount of the Outstanding Bonds to the Trustee and the Authority; or (ii) so long as no default or Event of Default exists under the Master Indenture, from the Authority to the Trustee, but such removal shall not take effect until a successor has been appointed and has accepted such appointment.

In the event of the resignation or removal of the Trustee or in the event the Trustee is dissolved or otherwise becomes incapable to act as the Trustee, the Authority shall be entitled to appoint a successor Trustee. In such event, the successor Trustee shall cause notice to be mailed to the Holders of all Bonds then Outstanding in such manner deemed appropriate by the Authority. If the Trustee resigns, the resigning Trustee shall pay for such notice. If the Trustee is removed, is dissolved, or otherwise becomes incapable of acting as Trustee, the Authority shall pay for such notice.

Unless otherwise ordered by a court or regulatory body having competent jurisdiction, or unless required by law, any successor Trustee shall be a trust company or bank having the powers of (a) a trust company as to trusts, qualified to do and doing trust business within or without the State of Rhode Island and having an officially reported combined capital, surplus, undivided profits and reserves aggregating at least \$50,000,000.

Every successor Trustee howsoever appointed under the Master Indenture shall execute, acknowledge and deliver to its predecessor and also to the Authority an instrument, in writing, accepting such appointment under the Master Indenture, and thereupon such successor Trustee, without further action, shall become fully vested with all the rights, immunities, powers, trusts, duties and obligations of its predecessor, and such predecessor shall execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of such predecessor. The predecessor Trustee shall execute any and all documents necessary or appropriate to convey all interest it may have to the successor Trustee. The predecessor Trustee promptly shall deliver all records relating to the trust or copies thereof and communicate all material information it may have obtained concerning the trust to the successor Trustee.

Each successor Trustee, not later than ten (10) days after its assumption of the duties under the Master Indenture, shall mail a notice of such assumption to each Holder of a registered Bond. (Section 806)

### **Supplemental Indentures Not Requiring Consent of Bondholders**

The Authority and the Trustee may, without the consent of or notice to any of the Holders, enter into one or more Supplemental Indentures for one or more of the following purposes:

- (a) to cure any ambiguity or formal defect or omission in the Master Indenture;

(b) to correct or supplement any provision in the Master Indenture which may be inconsistent with any other provision in the Master Indenture, or to make any other provisions with respect to matters or questions arising under the Master Indenture that shall not materially adversely affect the interest of the Holders;

(c) to grant or confer upon the Trustee or the Holders any additional rights, remedies, powers or authority that may lawfully be granted or conferred upon them;

(d) to secure additional moneys or provide additional security or reserves for payment of the Bonds;

(e) to preserve the excludibility of Interest on any Bonds from gross income for purpose of federal income taxes, or to change the tax covenants set forth under the headings "Payment of Principal, Interest and Premium" and "Covenant as to Compliance with Constitution and Laws" herein, pursuant to an opinion of Bond Counsel that such action will not affect adversely such excludibility;

(f) to provide for the issuance of, and to set the terms and details of, each Series of Bonds under the Master Indenture, including covenants and provisions included therein which do not violate the terms of the Master Indenture; and

(g) to add requirements the compliance with which is required by a Rating Agency in connection with issuing a rating with respect to any Series of Bonds.(Section 901)

#### **Supplemental Indentures Requiring Consent of Bondholders**

(a) Other than Supplemental Indentures referred to under the heading "Supplemental Indentures Not Requiring Consent of Bondholders" herein and subject to the terms and provisions and limitations contained in the Master Indenture and not otherwise, the Holders of not less than a majority in aggregate Principal Amount of the Bonds of each Series may consent to or approve, from time to time, which consent to or approval shall be in writing anything contained in the Master Indenture to the contrary notwithstanding, the execution by the Authority and the Trustee of such Supplemental Indentures as shall be deemed necessary and desirable by the Authority for the purpose of modifying, altering, amending, adding to or rescinding any of the terms or provisions with respect to such Series contained in the Master Indenture; provided, however, nothing in this section shall permit or be construed as permitting a Supplemental Indenture which would:

(i) extend the stated maturity of or time for paying the Interest on any Bond or reduce the Principal Amount of or the Redemption Premium or rate of Interest payable on any Bond without the consent of the Holder of such Bond;

(ii) prefer or give a priority to any Bond over any other Bond without the consent of the Holder of each Bond then Outstanding not receiving such preference or priority; or

(iii) reduce the aggregate Principal Amount of Bonds then Outstanding the consent of the Holders of which is required to authorize such Supplemental Indenture without the consent of the Holders of all Bonds then Outstanding.

(b) If at any time the Authority shall request the Trustee to enter into a Supplemental Indenture pursuant to this section, the Trustee shall, upon being satisfactorily indemnified with respect to expenses, cause notice of the proposed execution of such Supplemental Indenture to be mailed by first class mail, postage prepaid, to all Holders of Bonds of any affected Series then Outstanding at their addresses as they appear on the Register. The Trustee, however, shall not be subject to any liability to any Bondholder by reason of its failure to mail, or the failure of such Bondholder to receive, the notice required by this section, and any such failure shall not affect the validity of such Supplemental Indenture when consented to and approved as provided in this section. Such notice shall set forth briefly the nature of the proposed Supplemental Indenture and shall state that copies thereof are on file at the office of the Trustee for inspection by all Bondholders.

(c) If within such period, not exceeding three (3) years, as shall be prescribed by the Authority, following the first giving of a notice as provided in (b) above, the Trustee shall receive an instrument or instruments purporting to be executed by the Holders of not less than the aggregate Principal Amount specified in subsection (a) for the Supplemental Indenture in question which instrument or instruments shall refer to the proposed Supplemental Indenture described in such notice and shall specifically consent to and approve the execution thereof in substantially the form of the copy thereof referred to in such notice as on file with the Trustee, thereupon, but not otherwise, the Trustee may execute such Supplemental Indenture in substantially such form, without liability or responsibility to any Holder of any Bond, regardless of whether such Holder shall have consented thereto.

Any such consent shall be binding upon the Holder of the Bond giving such consent and upon any subsequent Holder of such Bond and of any Bond issued in exchange therefor (regardless of whether such subsequent Holder thereof has notice thereof), unless such consent is revoked in writing by the Holder of such Bond giving such consent or by a subsequent Holder thereof by filing with the Trustee, prior to the execution by the Trustee of such Supplemental Indenture, such revocation. At any time after the Holders of the required Principal Amount shall have filed their consents to the Supplemental Indenture, the Trustee shall make and file with the Authority a written statement to that effect. Such written statement shall be conclusive that such consents have been so filed.

(d) If the Holders of the required Principal Amount of the Bonds Outstanding shall have consented to and approved the execution of such Supplemental Indenture as provided in the Master Indenture, no Holder of any Bond shall have any right to object to the execution thereof, or to object to any of the terms and provisions contained therein or the operation thereof, or in any manner to question the propriety of the execution thereof or to enjoin or restrain the Trustee or the Authority from executing the same or taking any action pursuant to the provisions thereof.

The consent of the Holders of any Series of Additional Bonds to be issued under the Master Indenture shall be deemed given if the underwriters or initial purchasers for resale consent in writing to such Supplemental Indenture and the nature of the amendment effected by such Supplemental Indenture is disclosed in the official statement or other offering document pursuant to which such Series of Additional Bonds is offered and sold to be public. (Section 902)

#### **Credit Provider as Holder of the Bonds**

Subject to anything contrary set forth in a Supplemental Indenture, as long as a Credit Facility securing all or a portion of the Bonds Outstanding is in effect, the Credit Provider to the extent so authorized in the applicable Supplemental Indenture, shall be deemed to be the Holder of the Bonds secured by the Credit Facility; (i) at all times for the purpose of the execution and delivery of the Supplemental Indenture or of any amendment, change or modification of the Master Indenture or the initiation by Bondholders of any action to be undertaken by the Trustee at the Bondholders' request, which under the Master Indenture requires the written approval or consent of or can be initiated by the Holders of at least a majority in aggregate principal amount of the Bonds at the time Outstanding, (ii) at all times for the purpose of the mailing of any notice to Bondholders under the Master Indenture, and (iii) following an Event of Default for all other purposes. Notwithstanding the foregoing, a Credit Provider shall not be deemed to be a Holder of the Bonds with respect to any such Supplemental Indenture or of any amendment, change or modification of the Master Indenture which would have the effect of permitting (i) a change in the terms of redemption or maturity of any Outstanding Bonds or of any installment of Interest thereon or (ii) a reduction in the Principal Amount or the Redemption Price thereof or in rate of Interest thereon or (iii) reducing the percentage or otherwise affecting the classes of Bonds the consent of the Holders of which is required to effect any such modification or amendment. (Section 903)

#### **Discharge**

If payment of all the Principal Amount of, Redemption Premium, if any, and Interest on a Series of Bonds in accordance with their terms and as provided in the Master Indenture is made, or is provided for in accordance with the Master Indenture, and if all other sums payable by the Authority under the Master Indenture with respect to such Series of Bonds shall be paid or provided for, then the liens, estates and security interests granted by the Master Indenture shall cease with respect to such Series; provided, however, that the rebate provisions, if any, of the related Supplemental Indenture shall survive so long as there is any amount due to the federal government pursuant to the

provisions of such Supplemental Indenture. Thereupon, upon the request of the Authority, and upon receipt by the Trustee of an Opinion of Counsel stating that all conditions precedent to the satisfaction and discharge as provided above of the lien of the Master Indenture have been satisfied with respect to such Series of Bonds, the Trustee shall execute and deliver proper instruments acknowledging such satisfaction and discharging the lien of the Master Indenture with respect to such Series of Bonds. If the lien of the Master Indenture has been discharged with respect to all Series of Bonds, the Trustee shall transfer all property held by it under the Master Indenture, other than moneys or obligations held by the Trustee for payment of amounts due or to become due on the Bonds to the Authority or such other person as may be entitled thereto as their respective interests may appear. Such satisfaction and discharge shall be without prejudice to the rights of the Trustee thereafter to charge and be compensated or reimbursed for services rendered and expenditures incurred in connection with the Master Indenture.

The Authority may at any time surrender to the Trustee for cancellation any Bonds previously authenticated and delivered which the Authority at its option may have acquired in any manner whatsoever and such Bond upon such surrender and cancellation shall be deemed to be paid and retired. (Section 1001)

### **Providing for Payment of Bonds**

Payment of the Bonds or any Series of Bonds may be provided for by the deposit with the Trustee of Defeasance Obligations. Payment of the Bonds or any Series of Bonds shall be so provided for when the aggregate of amounts in the applicable Account of the Debt Service Reserve Fund together with other amounts available for such purpose under the Master Indenture is sufficient to so provide. The maturing principal and interest income on such Defeasance Obligations if any, shall be sufficient and available to pay when the Principal Amount of, whether at maturity or upon fixed redemption dates, and Redemption Premium, if any, and Interest on such Bonds. The Defeasance Obligations shall be held by the Trustee irrevocably in trust for the Holders of such Bonds solely for the purpose of paying the Principal Amount Redemption Premium, if any, and Interest on such Bonds as the same shall mature or become payable upon prior redemption, and, if applicable, upon simultaneous direction, expressed to be irrevocable, to the Trustee as to the dates upon which any such Bonds are to be redeemed prior to their respective maturities.

The Trustee shall receive an accountant's verification report as to the sufficiency of moneys and investments to provide for payment of a Series of Bonds in the case of a defeasance thereof.

If payment of a Series of Bonds is so provided for, the Trustee shall mail a notice so stating to each Holder of such Bond.

Bonds the payment of which have been provided for in accordance with this section shall no longer be deemed Outstanding under the Master Indenture. The obligations of the Authority in respect of such Bonds shall nevertheless continue but the Holders thereof shall thereafter be entitled to payment only from the Defeasance Obligations deposited with the Trustee to provide for the payment of such Bonds.

No Bond may be so provided for if, as a result thereof or of any other action in connection with which the provision for payment of such Bond is made, the interest payable on any Bond with respect to which an Opinion of Bond Counsel has been rendered that such Interest is excluded from gross income for federal income tax purposes is made subject to federal income taxes. The Trustee shall receive and may rely upon an Opinion of Bond Counsel (which opinion may be based upon a ruling or rulings of the Internal Revenue Service) to the effect that the provisions of this paragraph will not be breached by so providing for the payment of any Bonds. (Section 1002)

### **Payment of Bonds After Discharge**

Notwithstanding the discharge of the lien of the Master Indenture pursuant to the terms thereof, the Trustee nevertheless shall retain such rights, powers and duties under the Master Indenture as may be necessary and convenient for the payment of amounts due or to become due on the Bonds, including pursuant to any sinking fund redemptions, and the registration, transfer, exchange and replacement of Bonds as provided in the Master Indenture. Nevertheless, any moneys held by the Trustee or any Paying Agent for the payment of the Principal Amount of, Redemption Premium, if any, or Interest on any Bond remaining unclaimed for five (5) years after such payment has

become due and payable, or such other period provided by law, whether at maturity or upon proceedings for redemption, shall be disposed of as provided under the heading “Non-Presentation of Bonds” herein. After discharge of the lien of the Master Indenture, but prior to payment of such amounts to Holders or as provided under the heading “Non-Presentation of Bonds” herein, the Trustee shall invest such amounts in Government Obligations or pre-refunded municipal obligations described in paragraph (c) of the definition of Permitted Investments for the benefit of the Authority, as directed in writing by the Authority. (Section 1003)

### **Variable Rate and Tender Bonds**

(a) For purposes of determining whether Variable Rate Bonds shall be deemed to have been paid prior to the maturity or redemption date thereof, as the case may be, by the deposit of moneys, or Governmental Obligations and moneys, if any, as provided under the heading “Providing for Payment of Bonds” herein, the Interest to come due on such Variable Rate Bonds on or prior to the maturity date or redemption date thereof, as the case may be, shall be calculated at the Variable Rate Ceiling; provided, however, that if on any date, as a result of such Variable Rate Bonds having borne interest at less than such Variable Rate Ceiling for any period, the total amount of moneys and Government Obligations on deposit with the Trustee for the payment of interest on such Variable Rate Bonds is in excess of the total amount which would have been required to be deposited with the Trustee on such date in respect of such Variable Rate Bonds in order to satisfy the provisions set forth under the heading “Providing for Payment of Bonds” herein, the Trustee shall, if requested by the Authority, pay promptly the amount of such excess to the Authority free and clear of any trust, lien, pledge or assignment securing the Bonds or otherwise existing under the Master Indenture.

Tender Bonds shall be deemed to have been paid only if, in addition to satisfying the requirements thereof, there shall have been deposited with the Trustee moneys in an amount which shall be sufficient to pay when due the maximum Principal Amount and Redemption Price of and Interest on such Bonds which could become payable to the Holders of such Bonds upon the exercise of any options provided to the Holders of such Bonds; provided, however, that if, at the time a deposit is made with the Trustee pursuant to the provisions under the heading “Providing for Payment of Bonds” herein, the options originally exercisable by the Holders of Tender Bonds are no longer exercisable, such Bonds shall not be considered Tender Bonds for purposes of this section. If any portion of the moneys deposited with the Trustee for the payment of the Principal Amount, Redemption Price of and Interest on Tender Bonds is not required for such purposes the Trustee shall, if requested by the Authority, pay promptly the amount of such excess to the Authority free and clear of any trust, lien, pledge or assignment securing said Bonds or otherwise existing under the Master Indenture. (Section 1004)

### **Continuing Disclosure**

The Authority and the Trustee covenant and agree that they will comply with and carry out all of the provisions of the Continuing Disclosure Agreement. Notwithstanding any other provision of the Master Indenture, failure of the Authority or the Trustee to comply with the Continuing Disclosure Agreement shall not be considered an Event of Default; however, the Trustee may (and, at the request of any Participating Underwriter or the Holders of at least twenty-five percent (25%) aggregate principal amount of Outstanding Bonds, shall) or any Bondholder or Beneficial Owner may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the Authority or the Trustee, as the case may be, to comply with its obligations under this section. (Section 1113)

### **Second Supplemental Indenture**

### **Medium and Place of Payment**

If no securities depository holds the Series 2010 A Bonds, Interest on the Series 2010 A Bonds shall be paid by check or draft of the Trustee, mailed to the Holder as of the applicable Record Date at such Holder’s address as it appears on the Register or at such other address as is furnished to the Trustee in writing by such Holder and payment of the Principal Amount shall be made by check or draft upon presentation and surrender of the Series 2010 A Bonds to the Paying Agent; provided, however, that, at the election of any Holder of at least \$1,000,000 in Principal Amount of the Series 2010 A Bonds, payment may be made by wire transfer within the continental United States to the bank account number of such Holder on file with the Registrar as of the Record Date. No Interest shall

accrue on any payment mailed on or before the Interest Payment Date by check or draft to the most recent address of the Holder shown on the Register or on any wire transfer made to DTC or the Holder of at least \$1,000,000 of Series 2010 A Bonds on or before the Interest Payment Date. Notwithstanding the foregoing, so long as the Series 2010 A Bonds are registered in the name of DTC or its nominee, such payments may be made by wire transfer. (Section 204)

### **Computation and Payment of Rebate Amount; Other Tax Covenants**

At the times and in the manner required by Section 148(f) of the Code and applicable Regulations, the Authority shall make or cause to be made such calculations as are necessary to determine the amount of the accrued but unpaid liability to make rebate payments to the United States with respect to the Series 2010 A Bonds and shall direct the Trustee to make the payments required thereunder. The Authority shall, with such written direction, furnish the Trustee with any form or statement required to be filed in connection with any such payment. If the amount of accrued but unpaid liability to make rebate payments with respect to the Series 2010 A Bonds exceeds the amount, if any, then on deposit in the Series 2010 A Rebate Account, the Authority shall transfer from any lawful source or sources, the amount of such excess so that the amount on deposit in the Series 2010 A Rebate Account equals the amount of accrued but unpaid liability to make rebate payments with respect to Series 2010 A Bonds; if the amount, if any, then on deposit in the Series 2010 A Rebate Account exceeds the amount of accrued but unpaid liability to make: rebate payments with respect to the Series 2010 A Bonds, the Authority, shall direct the Trustee in writing to transfer such excess in the Series 2010 A Rebate Account to the General Fund. If, at any time the Authority is required to make any rebate payments to the United States with respect to any Series 2010 A Bonds, the amount on deposit in the Account in the Rebate Fund for the Series 2010 A Bonds is not sufficient to make such rebate payments in full, the additional amounts needed for such purpose shall be deposited immediately in such Account from the Revenue Fund, or be immediately supplied to the Trustee by the Authority from other legally available sources.

The Authority shall seek and obtain such advice from Bond Counsel or other professionals as shall be necessary to comply with the requirements of Section 148(f) of the Code. The expense of such compliance shall be an item of Operation and Maintenance Expenses. The Authority shall keep such records of the computations and determinations made pursuant to this Section as are required under Section 148(f), a copy of which shall be sent to the Trustee. The Authority and the Trustee shall keep such records concerning the investment of the "gross proceeds" (as used in Section 148(f) of the Code) under their respective control of the Series 2010 A Bonds and the investment of earnings from those investments as may be required in order to enable the aforesaid computations to be made.

Amounts on deposit in the Series 2010 A Rebate Account of the Rebate Fund shall be held in trust by the Trustee and used (except to the extent that excess amounts may be transferred to the General Fund, as above provided) solely to make Rebate payments to the United States of America with respect to the Series 2010 A Bonds.

If, after establishing the Series 2010 A Rebate Account in the Rebate Fund, an opinion of Bond Counsel is obtained to the effect that the Rebate Requirement is not or is no longer applicable to the Series 2010 A Bonds, then any amounts on deposit in the applicable Account which will not be needed to make any required rebate payments to the United States shall be deposited in the General Fund. Amounts on deposit in the Series 2010 A Rebate Account in the Rebate Fund may be invested in Investment Obligations (or otherwise as required or permitted by Section 148(f) of the Code and applicable Regulations) pending their use, as aforesaid, and all such investment income shall be deposited, upon receipt; in such Account. The Authority shall at all times comply with the requirements of Section 148(f) and applicable Regulations thereunder with respect to the Series 2010 A Bonds, and shall amend the provisions of this Section (without Bondholder's consent) to the extent necessary to achieve or facilitate such compliance.

In furtherance of the foregoing, the Authority is entering into the Tax Certificate with respect to matters of federal tax law pertaining to the Series 2010 A Bonds. Such Tax Certificate, including the amendment provisions thereof, will be treated as incorporated by reference in the Indenture and the Authority shall comply with the covenants therein. The Authority represents, warrants and covenants that it will comply with the requirements contained in the Tax Certificate. The Trustee shall not be responsible for compliance with Section 148 of the Code.

These provisions shall survive defeasance of the Series 2010 A Bonds. (Section 403)

**Designation of Series 2010 A Project as System Project**

Pursuant to the terms and conditions of the defined term “Project” set forth herein, the Authority designates the Series 2010 A Project as a System Project. (Section 404)

**RHODE ISLAND TURNPIKE AND  
BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE  
OF RHODE ISLAND)**

**BASIC FINANCIAL STATEMENTS**

**YEAR ENDED JUNE 30, 2009**



RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

YEAR ENDED JUNE 30, 2009

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RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

YEAR ENDED JUNE 30, 2009

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Lefkowitz, Garfinkel, Champi & DeRienzo P.C.  
Certified Public Accountants / Business Consultants

## **Independent Auditors' Report**

Board of Directors  
Rhode Island Turnpike and Bridge Authority  
Jamestown, Rhode Island

We have audited the accompanying basic financial statements of the Rhode Island Turnpike and Bridge Authority (the Authority), a Component Unit of the State of Rhode Island, as of and for the year ended June 30, 2009. These financial statements are the responsibility of the Authority's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Rhode Island Turnpike and Bridge Authority, a Component Unit of the State of Rhode Island, as of June 30, 2009, and the changes in its financial position and its cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States.

In accordance with Government Auditing Standards, we have also issued our report dated September 23, 2009 on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards and should be considered in assessing the results of our audit.

**Independent Auditors' Report (Continued)**

Board of Directors  
Rhode Island Turnpike and Bridge Authority

The Management's Discussion and Analysis on pages 3 through 10 is not a required part of the basic financial statements but is supplementary information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted primarily of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

*Kelkowitz, Jan. Jankel, Charpi & DeGonzal. C.*

September 23, 2009

## **MANAGEMENT'S DISCUSSION AND ANALYSIS**

The Rhode Island Turnpike and Bridge Authority (the Authority) is a quasi-public agency created by the Rhode Island General Assembly in 1954 to maintain and operate the Claiborne Pell Bridge, on the west shore of Narragansett Bay (the Bay) which connects the City of Newport and Town of Jamestown, and the Mount Hope Bridge, on the east shore of the bay which connects the Towns of Bristol and Portsmouth, Rhode Island. Day-to-day operations of the Authority are led by an Executive Director who oversees 43 employees and reports to a five-member Board of Directors comprised of the Director of Transportation, who is a member ex-officio, and four members appointed by the Governor. For over 50 years, the Authority has been committed to maintaining and operating the Pell and Mount Hope Bridges in a fiscally responsible manner that ensures their physical integrity and longevity.

This discussion and analysis of the Authority's financial position and performance provides information as of June 30, 2009 and for the year then ended, with comparison as deemed appropriate to the previous fiscal year that ended June 30, 2008. Readers are encouraged to utilize this document in conjunction with their review of the Authority's financial statements.

During fiscal 2009 (FY2009), there were no significant changes to the Authority's financing structure, accounting methods, or the manner in which activity is recorded and summarized for presentation.

### **FINANCIAL STATEMENTS COMPOSITION**

The Authority's annual financial statements consist of three parts: management's discussion and analysis, the basic financial statements with note disclosures, and supplementary information.

The basic financial statements report information about the self-supporting activities of the Authority funded primarily by toll revenue. They consist of a Statement of Net Assets, a Statement of Revenues, Expenses and Changes in Net Assets, and a Statement of Cash Flows, all of which are supported by Notes to the Financial Statements.

The financial statements provide indications of the Authority's financial health. The Statement of Net Assets summarizes all of the Authority's assets and liabilities (on the accrual basis of accounting) as of the fiscal year-end date, and indicates which assets can be used for general purposes and which are restricted by bond covenants as to their use. The Statement of Revenues, Expenses and Changes in Net Assets reports revenues earned and expenses incurred during a fiscal year. In addition to reporting cash provided and used by operating activities, the Statement of Cash Flows also reports other cash sources, such as investment income, and other cash uses, such as the purchase of capital additions and the repayment of bond principal and interest obligations.

In order to ensure observance of limitations and restrictions placed on the use of resources available to the Authority, its accounts are classified, for accounting and reporting purposes, into a number of separate funds. These funds, and their purposes, are described in Note 1 to the financial statements.

## 2009 FINANCIAL STATEMENTS AND OPERATIONAL SUMMARIES

### *Activity and Year-End Financial Position*

The Authority's total net assets increased from 2008 by \$2.1 million or 2.3%, which consisted of a decrease in total assets of \$1.3 million and a decrease in total liabilities of \$3.4 million. The \$2.4 million increase in capital assets is attributable to projects underway as part of the Authority's ongoing capital improvement program, net of \$3.4 million of depreciation. Converting investment funds in the Renewal and Replacement Fund account to cash in order to fund capital projects contributed to the decrease in total assets.

A comparative summary of the Authority's net assets at June 30 is shown below:

#### Statement of Net Assets

A condensed comparative summary of the Authority's net assets is shown below (dollars in thousands):

	June 30, 2009		June 30, 2008	
Assets:				
Capital assets (net)	\$ 88,213	74.8%	\$ 85,804	72.0%
Other:				
Investments	18,771	15.9%	26,423	22.2%
Cash and cash equivalents	10,001	8.5%	6,474	5.4%
Other	923	.8%	520	.4%
	29,695	25.2%	33,417	28.0%
Total assets	117,908	100.0%	119,221	100.0%
Liabilities:				
Bonds payable	23,684	20.1%	25,796	21.6%
Other liabilities	4,121	3.5%	5,390	4.6%
Total liabilities	27,805	23.6%	31,186	26.2%
Net assets:				
Invested in capital assets, net of related debt	62,835	53.3%	57,597	48.3%
Restricted under bond covenants	8,219	7.0%	6,359	5.3%
Unrestricted	19,049	16.1%	24,079	20.2%
Total net assets	\$ 90,103	76.4%	\$ 88,035	73.8%

**Statement of Revenues, Expenses and Changes in Net Assets**

Operating results are discussed in the *Operating Results* section below. A condensed summary of activity follows (dollars in thousands):

	2009		2008	
Operating revenues:				
Toll revenues	\$ 12,547	94.4%	\$ 12,040	100.0%
Transponder revenues	742	5.6%		
	13,289	100.0%	12,040	100.0%
Operating expenses:				
Personnel services	2,548	19.2%	1,918	15.9%
Insurance	1,254	9.4%	1,281	10.7%
Repairs and maintenance	2,134	16.1%	741	6.2%
Other	1,485	11.1%	499	4.1%
Transponder expense	1,290	9.7%		
Environmental remediation	(491)	(3.7%)	400	3.3%
Depreciation	3,419	25.8%	2,399	19.9%
	11,639	87.6%	7,238	60.1%
Operating income	1,650	12.4%	4,802	39.9%
Nonoperating revenue, net	418	3.2%	1,121	9.3%
Change in net assets	2,068	<u>15.6%</u>	5,923	<u>49.2%</u>
Net assets, beginning of year	88,035		82,112	
Net assets, end of year	\$ 90,103		\$ 88,035	

The Authority incurred a significant amount of expenses during the E-ZPass set-up and implementation. The customer service set-up, transaction processing charges and other toll collection expenses totaled approximately \$747,000. There was a 3.3% increase in personnel costs related to staffing the customer service center and monitoring the lanes in the toll plaza. The Authority continually monitors personnel to ensure the proper level of staff to service its customers. By selling transponders below cost to encourage people to enroll in the E-ZPass program, the Authority incurred a net operating expense of approximately \$548,000. The costs incurred in the environmental remediation projects were significantly less than estimated, resulting in a \$491,000 increase in net assets.

**Tolls and Operations**

The Claiborne Pell Bridge toll schedule is based upon financial obligations of the Authority. Toll rates are set at a level sufficient to fund ongoing operations, debt service (including reserves), capital improvements, and regular maintenance of the Authority's capital assets. Tolls were removed from the Mount Hope Bridge effective May 1, 1998.

## **Tolls and Operations (Continued)**

The \$1 per axle cash toll at the Pell Bridge has not been increased since the structure opened to traffic in 1969. Until 1999, passage for two-axle vehicles (passenger cars, motorcycles, and two-axle recreational vehicles and light trucks) was permitted for \$1 through the use of tokens sold for \$10 per roll of ten. In 1999, the single-passage fare was reduced with the purchase of bulk tokens, which could be purchased in groups of 11 for \$10 (which equated to \$.9091 per token/fare) or 60 for \$50 (or \$.8333 per token/fare).

In December 2008, the Authority began the implementation of the electronic toll collection system, E-ZPass. The conversion to E-ZPass was completed in January 2009 and tokens were no longer accepted for passage. The cash rate for passage remained \$1 per axle. The rate for a Rhode Island resident with a Rhode Island transponder was set at \$.83. A commuter rate for out-of-state residents with a Rhode Island transponder was established at \$.91 if they made 31 trips in a 30-day period. All others pay \$1.75.

A redemption program for unused tokens and tickets was established and tokens can be redeemed by check at the rate of \$.83 per token or for a credit to a Rhode Island E-ZPass account at the rate of \$.91. Tickets can be redeemed for their face value either by check or credit to an account.

A customer service center, including a walk-in center and a call center, was set up in Jamestown adjacent to the toll plaza where E-ZPass applications are processed, transponders are sold and accounts replenished. A satellite office was open at the Tourist and Convention Center in Newport from January through May. Customer service agents were scheduled to accept applications at various locations on Aquidneck Island during November and December 2008.

Although the cost to the Authority of each transponder is \$20.95, the initial selling price was \$10 for the first transponder, \$15 for the second transponder and \$20.95 for the third and fourth, with a limit of 4 transponders per individual account, but unlimited to businesses. In addition, Rhode Island residents having an out-of-state E-ZPass account and purchasing a Rhode Island transponder were given a \$10 credit toward their prepaid tolls. In June, the discount program was discontinued and all transponders are sold for \$20.95. As of June 30, 2009, the Authority had sold 60,129 transponders.

The Authority entered into a three-year renewable contract with Affiliated Computer Services of Newark, New Jersey to process E-ZPass transactions, open and close accounts, maintain the account information database, distribute transponders, resolve disputes and receive and post prepaid revenue

The operations department is responsible for the collection of tolls from motorists passing through the Authority's toll plaza in Jamestown, adjacent to the Pell Bridge. The department is headed by a Director of Operations, who is assisted by a number of supervisors in order to operate the facility 24 hours per day, 365 days per year. The department employs approximately 33 full- and part-time toll collectors throughout the year, all of whom are covered under a collective bargaining agreement, as well as non-union casual collectors utilized primarily during the busy tourist season of May 30 through October 12. Supervisors are responsible for the smooth operation of all activity during weekdays, and during nights and weekends are also responsible for reporting to the bridge and all Authority buildings and grounds to investigate unusual occurrences and to maintain a safe environment for motorists. The Rhode Island State Police is summoned when circumstances dictate, and also undertakes routine patrols at the toll plaza and elsewhere adjacent to the bridges, especially during weekend evenings during the summer. This is done in cooperation with local police and EMTC services provided by the municipalities of Jamestown, Newport, Bristol, and Portsmouth.

## Operating Results

### Pell Bridge Traffic and Revenue Summary

Traffic and revenue statistics for the current and prior years are as follows:

	<u>2009</u>		<u>2008</u>	
<b>Traffic (number of passages)</b>				
Vehicle fares paid with tickets, tokens or ETC	7,333,433	73.7%	8,102,676	79.6%
Two-axle vehicle fares paid with cash	2,620,377	26.3%	2,081,389	20.4%
	<u>9,953,810</u>	<u>100.0%</u>	<u>10,184,065</u>	<u>100.0%</u>
	<u>2009</u>		<u>2008</u>	
<b>Revenue</b>				
Vehicle fares paid with tickets, tokens or ETC	\$ 7,305,748	58.2%	\$ 7,879,315	65.4%
Two-axle vehicle fares paid with cash (at \$2 per passage)	5,240,754	41.8%	4,160,708	34.6%
	<u>\$12,546,502</u>	<u>100.0%</u>	<u>\$12,040,023</u>	<u>100.0%</u>

Pell Bridge traffic decreased during 2009 and revenue increased as compared to the previous year. Vehicular bridge passages decreased by 230,255 (2.3%), however, toll revenue increased by \$506,478 (4.2%). With the conversion to electronic toll collection, two-axle vehicle cash fares represented 41.8% of revenue as compared to the prior year of 34.6%. The significant increase in two-axle vehicle cash revenue can be attributed in part to token users who have not established an E-ZPass account and past violators who must now stop and pay the toll in order to pass through the gate. The previous violation rate with tokens of between 2% and 4% translated to approximately \$250,000 to \$480,000 a year in lost revenue annually.

### **Engineering and Maintenance**

The head of the engineering department is a Director of Engineering who oversees all capital construction activities on behalf of the Authority. In addition, under the Director of Engineering, separate consulting engineering firms, including on-call contracting firms, have been engaged to manage projects undertaken on each structure. Each bridge is subjected to an annual inspection, and a more thorough and complete “in-depth” inspection is performed on each structure every two years.

The Board hired a nationally recognized firm to conduct a risk management study to evaluate the Authority’s procedures to avoid, prepare for and respond to natural and manmade concerns. The firm made recommendations to improve the safety and security of the bridges; the Authority will begin implementing these recommendations in 2010.

## **Engineering and Maintenance (Continued)**

Approximately 75% of the Authority's assets are capital assets, most notably the two largest suspension bridges in New England, the operation and maintenance of which the Authority has been charged. In order to continue to protect these assets for the foreseeable future, the Authority's Board of Directors bi-annually revises its 10-year Renewal and Replacement Plan.

During FY2009, the Authority continued its preventive maintenance programs for both the Pell and Mount Hope bridges, which are designed to ensure the safety, security, and aesthetics of the structures while generating long-term savings for the Authority. As part of this effort, a number of Authority staff have been assigned additional duties including security details, especially during high alert periods; preventive maintenance of bridge bearings; repair of potholes on approach roads; preventive corrosion treatment on bridges; snow removal at the toll plaza; lawn maintenance, routine inspection on expansion and contraction components of bridges; painting of bridge rails and building interiors; and signage maintenance on bridges.

## **Capital and Construction Activities**

Under the current Renewal and Replacement Plan, \$69.1 million is allocated to the Newport/Pell Bridge, with the remaining \$50.2 million going toward Mount Hope Bridge projects. Major capital improvement projects in progress during fiscal 2009 included the following:

### **Mount Hope Bridge**

- Tower bases rehabilitation project
- Ongoing on-call deck maintenance
- Access hatches replacement

### **Newport/Pell Bridge**

- Continued patching and sealing of roadway and painting repairs of steel superstructure
- Installation of electronic toll collection system (E-ZPass)
- Design of bridge painting and steel repairs

The Authority has entered into various contracts for ongoing improvements to the bridges and property. As of June 30, 2009, remaining commitments on these contracts approximated \$4.2 million.

## **Finance and Accounting**

Finance and accounting functions are headed by a Chief Financial Officer who is responsible for maintaining the Authority's books and records and for adhering to covenants and other requirements of agreements entered into with bondholders.

## **Debt Service**

Approximately 85% of the Authority's liabilities are debt service obligations entered into during 2003 when bonds then outstanding, Series 1997, were refinanced. The total 2003 Series A bond issuance raised \$35,765,000. Principal payments are due annually, and interest payments semiannually, until maturity in 2017. The 2003 Series A bonds are not subject to optional redemption prior to maturity.

In accordance with the trust agreement entered into between the Authority and U.S. Bank National Association, the trustee, debt service obligations (monthly deposits of toll revenues made into separate principal, interest, and debt service reserve accounts held by the trustee) were made during FY2009 on a timely basis. Compliance with restrictions and covenants stipulated in the trust agreement was monitored during year by the Chief Financial Officer. Included in the State of Rhode Island's fiscal year 2010 Capital Budget is \$50 million of revenue bonds to be issued by the Authority supported by toll increases. The terms of issuance and expected date for such have not yet been determined.

## **Investments**

Approximately 15.9% of the Authority's assets are investments. Under the trust agreement referenced above, "moneys in all funds and accounts shall be invested by the holder of such Fund or Account as soon as practicable upon receipt in Permitted Investments..." The definition of Permitted Investments includes mostly fixed-income securities, and as is evident in the Schedule of Cash and Investments on page 37 through 42, a substantial majority of the Authority's investments (64%) are in the form of U.S. Treasury/Agency obligations, most of which have stated maturities between 2010 and 2014. Approximately 16% of the Authority's investments are in corporate bonds and 17% are in U.S. Government agency asset-backed securities with maturities between 2021 to 2038.

## **Insurance Cost Savings Initiatives**

Insurance continues to be among the Authority's most significant operating expenses. In January 2005, management and the local collective bargaining unit cooperated in an effort to control health care costs while maintaining the current level of service. The creative approach employed continued to be successful in achieving substantial savings in 2008 and 2009. The Authority entered into a three-year contract with the union, effective July 1, 2008, and received increases in the employees' premium co-pays each year during the term of the contract.

The Authority maintains property and casualty insurance coverage as deemed appropriate in consultation with an insurance industry expert.

In fiscal year 2008, in order to contain the cost of insuring the bridges, the Board of Directors increased the deductible and prepaid 25% of the FY2009 premium to lock in a favorable rate on the marine insurance on the bridges. Premiums on other policies declined slightly resulting in a savings to the insurance expense. The Board continues to work to find ways to decrease the cost of insurance.

## **Community Involvement**

The Authority continues to maintain its relationships with its host communities of Bristol, Jamestown, Newport, and Portsmouth, Rhode Island. The Authority takes an active role with community organizations and continues to make marketing-related sponsorships of cultural and other events in its host municipalities, which it believes contributes directly to an increase in bridge traffic, especially from local patrons.

A lease agreement for use of the Mount Hope Bridge's former Gatekeeper's House with Roger Williams University continues to result in a favorable arrangement for both parties. Capital improvements and annual operating and maintenance costs of this facility, which were previously the responsibility of the Authority, have been assumed by the university, which houses its alumni relations offices in the building.

## **Requests for Information**

This financial report is designed to provide a general overview of the Authority and its finances. Questions about any of the information contained in this report and requests for additional information may be addressed to the Executive Director at: Rhode Island Turnpike and Bridge Authority, P.O. Box 437, Jamestown, RI 02835.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

STATEMENT OF NET ASSETS - JUNE 30, 2009

**ASSETS:**

Current assets:

Cash and cash equivalents	\$ 5,042,576
Accounts receivable	717
Accrued interest receivable	308
Inventory	412,677
Prepaid expenses	116,748

Restricted:

Cash and cash equivalents	4,957,908
Investments	3,617,284
Accounts receivable	247,494
Accrued interest receivable	17,823

14,413,535

Noncurrent assets:

Investments	15,153,445
Bond issuance costs, net	127,860
Capital assets not being depreciated	3,117,339
Capital assets being depreciated, net	85,095,937

103,494,581

117,908,116

(continued)

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

STATEMENT OF NET ASSETS - JUNE 30, 2009 (CONTINUED)

**LIABILITIES:**

Current liabilities:

Accounts payable	\$ 2,138,962
Accrued interest payable	100,665
Accrued expenses	373,345
Prepaid and unredeemed tolls and tokens	1,508,582
Current portion of bonds payable	<u>2,180,000</u>

Total current liabilities 6,301,554

Bonds payable, less current portion 21,503,887

Total liabilities 27,805,441

Commitments (Note 5)

**NET ASSETS:**

Invested in capital assets, net of related debt	62,835,146
Restricted, bond covenants	8,219,195
Unrestricted	<u>19,048,334</u>

Total net assets \$ 90,102,675

See notes to financial statements.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS

YEAR ENDED JUNE 30, 2009

Operating revenues:	
Tolls	\$ 12,546,502
Transponder sales	<u>742,153</u>
Total operating revenues	<u>13,288,655</u>
Operating expenses:	
Personnel services	2,547,860
Utilities	148,406
Contractual services	1,138,424
Other supplies and expenses	198,199
Insurance	1,253,495
Repairs and maintenance of system	2,134,447
Transponder expense	1,290,275
Environmental remediation	(491,470)
Depreciation	<u>3,418,857</u>
Total operating expenses	<u>11,638,493</u>
Operating income	<u>1,650,162</u>
Nonoperating revenues (expenses):	
Interest expense	(1,146,034)
Amortization of bond issuance costs	(14,897)
Amortization of bond discount	(17,172)
Investment income, net of trustee fees	1,502,012
Miscellaneous income	<u>94,096</u>
Total nonoperating revenues (expenses)	<u>418,005</u>
Change in net assets	2,068,167
Net assets, beginning of year	<u>88,034,508</u>
Net assets, end of year	<u><u>\$ 90,102,675</u></u>

See notes to financial statements.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

STATEMENT OF CASH FLOWS

YEAR ENDED JUNE 30, 2009

Cash flows from operating activities:	
Cash receipts from:	
Tolls	\$ 13,306,724
Transponder sales	742,153
Other	94,096
Cash payments to:	
Suppliers for goods and services	(7,826,112)
Employees for services	(2,556,645)
	<hr/>
Net cash provided by operating activities	3,760,216
Cash flows from capital and related financing activities:	
Acquisition and construction of capital assets	(6,167,963)
Principal paid on bonds	(2,105,000)
Interest paid on bonds	(1,170,064)
	<hr/>
Cash used in capital and related financing activities	(9,443,027)
Cash flows from investing activities:	
Proceeds from sale and maturities of investments	28,655,390
Purchase of investments	(20,504,574)
Investment income received	1,058,766
	<hr/>
Net cash provided by investing activities	9,209,582
Net increase in cash and cash equivalents	3,526,771
Cash and cash equivalents, beginning of year	6,473,713
	<hr/>
Cash and cash equivalents, end of year	\$ 10,000,484
	<hr/> <hr/>

(continued)

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

STATEMENT OF CASH FLOWS (CONTINUED)

YEAR ENDED JUNE 30, 2009

Reconciliation of operating income to net cash provided by operating activities:	
Operating income	\$ 1,650,162
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation	3,418,857
Miscellaneous income	94,096
Changes in assets and liabilities:	
Accounts receivable	(197,328)
Inventory	(412,677)
Prepaid expenses	136,528
Accounts payable	(38,561)
Accrued expenses	(1,710,146)
Prepaid and unredeemed tolls and tokens	<u>819,285</u>
Net cash provided by operating activities	<u>\$ 3,760,216</u>

See notes to financial statements.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS

YEAR ENDED JUNE 30, 2009

1. Description of business and summary of significant accounting policies:

*Description of business:*

The Rhode Island Turnpike and Bridge Authority (Authority) was created in 1954 by the Rhode Island General Assembly as a body corporate and politic, with powers to construct, acquire, maintain, and operate bridge projects as defined by law. The Authority was responsible for the construction of the Claiborne Pell Bridge (formerly the Newport Bridge), which was opened for traffic on June 28, 1969, and has been responsible for the operation and maintenance of the Mount Hope Bridge between Bristol, Rhode Island and Portsmouth, Rhode Island and the Claiborne Pell Bridge between Newport, Rhode Island and Jamestown, Rhode Island since 1964 and 1969, respectively.

The Authority is a component unit of the State of Rhode Island for financial reporting purposes and, as such, the financial statements of the Authority will be included in the State of Rhode Island's Annual Financial Report.

The Authority is exempt from federal and state income taxes.

*Basis of accounting:*

The Authority engages only in business-type activities. Business-type activities are activities that are financed in whole or in part by fees charged to external parties.

Accounts of the Authority are maintained in compliance with provisions of the Trust Agreement with U.S. Bank National Association dated July 1, 2003, which secured the Authority's revenue bonds. The Trust Agreement requires that the accounting policies of the Authority conform to accounting principles generally accepted in the United States as applied to governmental entities.

The financial statements of the Authority have been prepared using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis of accounting, all assets and liabilities associated with operations are included on the statement of net assets, revenues are recorded when earned and expenses are recorded at the time the liabilities are incurred.

In accordance with Governmental Accounting Standards Board (GASB) Statement No. 20, "Accounting and Financial Reporting for Proprietary Funds and Other Governmental Entities that Use Proprietary Fund Accounting," the Authority has elected to apply all applicable GASB pronouncements, as well as private-sector guidance issued on or before November 30, 1989, unless these pronouncements conflict with or contradict GASB pronouncements.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

1. Description of business and summary of significant accounting policies (continued):

*Basis of presentation:*

In order to ensure observance of limitations and restrictions placed on the use of resources available to the Authority, the accounts of the Authority are maintained in accordance with the principles of "Fund Accounting." This is a procedure by which resources for various purposes are classified for accounting and reporting purposes into funds that are in accordance with activities or objectives specified. The Authority's basic financial statements are presented as the combined total of all the Authority's funds. Combining supplemental schedules are presented for purposes of additional analysis.

The nine (9) funds used by the Authority are as follows:

*Revenue Bond Fund:*

This fund reflects the Authority's debt service payments on outstanding obligations. The 2003 Debt Service Reserve Fund is a sinking fund for the debt service reserve requirements of the Authority as determined according to the Trust Agreement.

*Construction Fund:*

This fund reflects the cost of constructing the Claiborne Pell Bridge, as well as the Authority's liability for the revenue bonds.

*Revenue Fund:*

All tolls and other revenues derived from the operation and ownership of the bridge are collected by the Authority and deposited daily, as far as practicable, to the credit of the Revenue Fund. The Toll Revenue Fund was created in fiscal 2004 as an extension of the Revenue Fund for the transfer of the Authority's Revenue Fund receipts to the Trustee, U.S. Bank. The transfers are made on a monthly basis and all fund appropriations are made from this account. This account acts as a clearing account; accordingly, there is no separate presentation of the Toll Revenue Fund in the supplemental combining statements.

*ETC Fund:*

This fund, the Electronic Toll Collection Fund, reflects the Authority's electronic toll collecting transactions, including revenues, collections, payments and settlements. Similar to the Toll Revenue Fund, receipts are transferred to U.S. Bank and then appropriated back to various funds.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

1. Description of business and summary of significant accounting policies (continued):

*Basis of presentation (continued):*

*Insurance Reserve Fund:*

This fund is a designated fund to help meet the deductibles and establish a level of self insurance. The Authority's deductible on the bridges' insurance policy equals 4% of the policy coverage.

*Operating and Maintenance Fund:*

This fund reflects the operating activities of the Authority.

*Operating and Maintenance Reserve Fund:*

Amounts in the Operating and Maintenance Reserve Fund are used to pay operating expenses to the extent amounts on deposit in the Operating and Maintenance Fund are not sufficient to pay operating expenses. The Trust Agreement requires the Authority to maintain an amount on deposit equal to one-fifth of operating expenses for the fiscal year as set forth in the annual budget.

*Renewal and Replacement Fund:*

This fund reflects costs of nonannually recurring repair and rehabilitation of the system. The annual operating budget includes an appropriation for current and future system maintenance expenses, reviewed and approved by the consulting engineers.

*General Fund:*

This fund reflects monies available for use after the payment of operating expenses, debt service, and the funding of the required debt service and operation and maintenance reserves, as well as the renewal and replacement reserve requirements. These funds may be used by the Authority for any lawful purpose.

*Operating and nonoperating revenues and expenses:*

Operating revenues and expenses result from providing services for the ongoing operations of the Mount Hope and Claiborne Pell Bridges. The principal operating revenue of the Authority is the collection of toll revenue from the users of the Claiborne Pell Bridge. Operating expenses include all expenses for the ongoing management and maintenance of the bridges. Nonoperating revenues and expenses include all items that do not meet the definition of operating revenue and expenses.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

1. Description of business and summary of significant accounting policies (continued):

*Cash and cash equivalents:*

The Authority considers all highly liquid investments (including restricted assets) with a maturity of three months or less when purchased to be cash equivalents.

*Investments:*

Investments consist of U.S. Treasury and agency obligations, which are guaranteed by the U.S. Government; corporate bonds; repurchase agreements, which are collateralized by U.S. Treasury and agency obligations; and asset-backed securities. Investments are recorded at fair value, except for investments meeting the requirements of the “one year option” and nonparticipating interest-earning investment contracts (i.e., certificates of deposit) which are recorded at amortized cost. Under the “one year option,” money market investments (i.e., U.S. Treasury and agency obligations) that have a remaining maturity at the time of purchase of one year or less may be recorded at amortized cost. At June 30, 2009, all investments are reported at fair value.

*Restricted assets:*

Certain assets have been restricted in accordance with the provisions of the Trust Agreement and are classified as either current or noncurrent based on the maturities of the underlying securities. In addition, cash collected from customers and recorded as prepaid tolls in the accompanying financial statements has been classified as restricted.

*Inventory:*

Inventory consists of E-ZPass transponders valued at cost using the first-in, first-out (FIFO) method.

*Capital assets:*

All capital assets are stated at cost. The Authority capitalizes substantially all assets acquired with an original cost basis in excess of \$10,000 for equipment and \$25,000 for bridge and building improvements and an estimated useful life in excess of 1 year. The cost of the Claiborne Pell Bridge includes engineering, legal, financial, administrative and other costs incident to the construction of the bridge, less income earned on Construction Fund investments during construction. The cost of the Mount Hope Bridge is the amount previously carried on the records of the former Mount Hope Bridge Authority. All capital assets are depreciated using the straight-line method over the estimated useful lives of the respective assets as follows:

Bridges and bridge improvements	10-100 years
Buildings and land improvements	8-30 years
Equipment	3-20 years

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

1. Description of business and summary of significant accounting policies (continued):

*Intangible assets:*

Intangible assets, reported within capital assets, are comprised of licensing fees that do not expire unless certain contractual obligations are broken and are therefore reported at cost with no depreciation.

*Bond issuance costs:*

Bond issuance costs are amortized on a straight-line basis over the life of the related bond (14-½ years). Bond issuance costs and accumulated amortization as of June 30, 2009 were \$216,000 and \$88,140, respectively.

*Bond discount:*

Bond discount is amortized on a straight-line basis over the life of the related bond (14-½ years). Bond discount and accumulated amortization as of June 30, 2009 were \$248,988 and \$101,601, respectively. Bond discount is shown in the accompanying financial statements as a component of long-term debt.

*Deferred gain on refunding:*

The deferred gain on refunding is amortized on a straight-line basis over the life of the related bond (14-½ years). Deferred gain on refunding and accumulated amortization as of June 30, 2009 were \$348,464 and \$142,190, respectively. The deferred gain on refunding is shown in the accompanying financial statements as a component of long-term debt and the annual amortization of the deferred gain is reported as a reduction of interest expense.

*E-ZPass:*

During 2009, the Authority replaced its token and ticket system of toll collection with E-ZPass, an automated toll collection system. Upon enrolling in E-ZPass, participants establish prepaid toll accounts. These prepaid toll receipts are recorded by the Authority as deferred revenue until the customer completes a toll transaction, at which time, revenue is recorded and the customer's account is charged. Vehicle transponders, which serve to identify the vehicles passing through the toll plazas, are purchased by the Authority and distributed to customers upon their enrollment in the program. Since June 1, 2009, the price customers are charged for transponders approximately equals the Authority's cost. Prior to June 1, 2009, transponders were sold at a discount.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

1. Description of business and summary of significant accounting policies (continued):

*Unredeemed toll coupons and tokens:*

Income recognition on the sales of toll coupons and tokens is deferred until actual use of the coupons and tokens occurs. Since E-ZPass, the Authority has been redeeming coupons and tokens from customers for either cash or credit to customer accounts and will continue doing so for an undetermined period of time. At June 30, 2009, the recorded balance for unredeemed coupons and tokens totaling \$102,000 reflects management's estimate of future coupon and token redemptions.

*Investment income:*

Income earned on investments is recognized in the fund in which the investments are held. Investment income includes unrealized gains and losses recorded to present investments at fair value.

*Accrued sick and vacation:*

Employees are granted sick and vacation leave in varying amounts. Upon retirement, termination or death, certain employees are compensated for unused vacation and sick leave (subject to certain limitations) at their then current rates of pay. The amount accrued at year-end includes unused vacation and sick leave earned at the employees' current rates of pay, subject to the applicable limitations.

*Use of estimates:*

The preparation of financial statements in conformity with accounting principles generally accepted in the United States 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.

*Net assets:*

The Authority's net assets have been segregated into the following three components:

Invested in capital assets, net of related debt - Consists of capital assets, including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

1. Description of business and summary of significant accounting policies (continued):

*Net assets (continued):*

Restricted net assets - Consists of net assets with constraints placed on their use either by 1) external groups such as creditors, grantors, contributors, or laws or regulations of other governments, or 2) law through constitutional provisions or enabling legislation.

Unrestricted net assets - All other net assets that do not meet the definition of “restricted” or “invested in capital assets, net of related debt.”

2. Cash and investments:

The Trust Agreement specifies the permitted investments that may be used by the Authority. Further, effective October 1, 1991, the State of Rhode Island requires that certain uninsured deposits be collateralized. Section 35-10.1-7 of the General Laws of the State of Rhode Island, dealing with the collateralization of public deposits, requires that all time deposits with maturities of greater than 60 days and all deposits in institutions that do not meet the minimum capital requirements of its federal regulator must be collateralized.

*Deposits:*

The carrying amount of the Authority’s cash and cash equivalents at June 30, 2009 was \$10,000,484, while the bank balance was \$9,969,021. Of the bank balance, \$2,941,233 was covered by federal depository insurance; \$5,447,788 was maintained in money market accounts holding U.S. Treasury Securities with an AAA rating; and \$1,580,000 was held in fully collateralized repurchase agreements.

*Investments:*

At June 30, 2009, the Authority’s investments consisted of the following (additional details are provided on pages 37 to 42 in the accompanying information to the basic financial statements):

	<u>Fair value</u>		<u>Interest rate</u>	<u>Maturity</u>	<u>Rating</u>
United States Treasury/Agency securities:					
United States Treasury Notes	\$ 6,859,465	*	1.375%-5.125%	2010-2016	AAA
United States Treasury Inflation Indexed Bonds	290,272		1.375%-5.75%	2017-2027	AAA
Federal National Mortgage Association	437,815		1.75%-2.5%	2011-2014	AAA
Federal Home Loan Bank	3,725,159	*	4.875%-6.16%	2010-2012	AAA
Federal Home Loan Mortgage Corporation	304,908		2.0%-3.0%	2012-2014	AAA
Federal Farm Credit Bank	410,223		2.125% -3.875%	2011-2012	AAA
	<u>12,027,842</u>				

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

2. Cash and investments (continued):

	<u>Fair value</u>		<u>Interest rate</u>		<u>Maturity</u>		<u>Rating</u>
State bonds	\$ 27,418		7.55%		2039		A2
Corporate bonds:	956,240		2.1%-6.250%		2012-2013		AAA
	93,275		4.5%-5.375%		2011-2013		AA3
	292,493		5.625%-7.9%		2018-2037		AA2
	618,329		4.75%-6.125%		2011-2018		A3
	474,361		5.75%-7.75%		2011-2039		A2
	92,717		5.5%-7.0%		2016-2026		A1
	292,360		5.4%-8.25%		2011-2019		BAA2
	<u>223,472</u>		5.3%-6.150%		2014-2037		BAA1
	<u>3,043,247</u>						
Asset-backed security trusts:							
Government agency asset-backed trusts:							
Federal National Mortgage Association Passthru	2,886,778	*	4.0%-6.5%		2021- 2038		N/A
Federal Home Loan Mortgage Corporation Passthru	<u>341,056</u>		4.5%-7.0%		2021-2038		N/A
	<u>3,227,834</u>						
Corporate asset-backed trusts	<u>444,388</u>		5.05%-5.84%		2012-2051		AAA
Total investments	<u>\$ 18,770,729</u>						

\* Investments in one issuer greater than 5% of all investments.

*Interest rate risk:*

The Authority does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The majority of the Authority's investments are in government bonds and securities which have interest rates that are fixed for long periods and are subject to more variability in their fair value as a result of future changes in interest rates.

*Concentration of credit risk:*

At June 30, 2009, 64% of the Authority's investments were maintained in U.S. Government Securities and Bonds and 17% were held in asset-backed securities of government agencies.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

2. Cash and investments (continued):

*Custodial credit risk:*

Custodial credit risk is the risk that in the event of financial institution failure, the Authority's deposits and/or investments may not be returned. The Authority does not have a deposit or investment policy for custodial credit risk. At June 30, 2009 and for the year then ended, all of the Authority's investments were direct investments not subject to custodial credit risk.

3. Capital assets:

	Balance, June 30, 2008	Additions	Retirements and disposals	Balance, June 30, 2009
Capital assets not being depreciated:				
Construction in progress	\$ 2,677,284	\$ 6,114,653	\$ (5,924,598)	\$ 2,867,339
Licensing fees	- 0 -	250,000		250,000
	2,677,284	6,364,653	(5,924,598)	3,117,339
Capital assets being depreciated:				
Bridges	109,652,628	3,056,244	- 0 -	112,708,872
Buildings	2,643,267			2,643,267
Land improvements	308,919	344,163		653,082
Equipment	3,619,498	1,987,474		5,606,972
	116,224,312	5,387,881	- 0 -	121,612,193
Total capital assets being depreciated				
Less accumulated depreciation:				
Bridges	(29,315,639)	(2,985,083)	- 0 -	(32,300,722)
Buildings	(2,615,924)	(9,942)		(2,625,866)
Land improvements	(171,193)	(39,666)		(210,859)
Equipment	(994,643)	(384,166)		(1,378,809)
	(33,097,399)	(3,418,857)	- 0 -	(36,516,256)
Total accumulated depreciation				
Net capital assets being depreciated, net	83,126,913	1,969,024	- 0 -	85,095,937
Capital assets, net	\$ 85,804,197	\$ 8,333,677	\$ (5,924,598)	\$88,213,276

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

4. Long-term debt:

On July 31, 2003, the Authority issued \$35,765,000 of Series 2003 A Taxable Refunding Revenue Bonds as an advance refunding of the Series 1997 Revenue Bonds. The Authority in-substance defeased the Series 1997 refunding bonds by placing \$36,790,521 on deposit with the escrow agent. The amount placed in escrow included a premium paid on the advance payment of the bonds totaling approximately \$679,000. On September 4, 2003, the escrow agent made a principal redemption of the Series 1997 Bonds totaling \$33,970,000. The final principal payment of the Series 1997 Bond was made on December 1, 2003 in the amount of \$1,680,000. Accordingly, as of June 30, 2009, the Authority had no obligations related to the defeased Series 1997 Bonds.

The Series 2003 A Bonds are fixed rate bonds dated July 31, 2003. Interest is payable semi-annually on December 1 and June 1 at interest rates ranging from 1.15% to 5.23%. Principal repayments of the bond are due annually commencing on December 1, 2003 with a final payment due on December 1, 2017. The Series 2003 A Bonds will not be subject to optional redemption prior to maturity but are subject to special mandatory redemption as provided in the Series 2003 A bond agreement. At June 30, 2009, the Authority has in-substance defeased debt of approximately \$32,300,000, representing outstanding bonds related to the 1965, 1965A, 1965B and 1967 bond issues. The proceeds from the Series 1997 Bonds were placed into an irrevocable trust to provide for all future debt service payments on the refunded revenue bonds. The assets of the trust account and the liability for the defeased bonds have not been included in the financial statements of the Authority.

During the year ended June 30, 2009, changes in long-term debt consisted of the following:

	Balance, June 30, 2008	Retirements	Balance, June 30, 2009
Series 2003 revenue bonds payable	\$ 25,730,000	\$ 2,105,000	\$ 23,625,000
Deferred amounts, net:			
Gain on refunding	230,306	24,032	206,274
Bond discount	(164,559)	(17,172)	(147,387)
Total bonds payable	<u>\$ 25,795,747</u>	<u>\$ 2,111,860</u>	<u>\$ 23,683,887</u>

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

4. Long-term debt (continued):

The following represents debt service and sinking fund requirements to maturity as of June 30, 2009:

<u>Fiscal year ending June 30,</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2010	\$ 2,180,000	\$ 1,089,446	\$ 3,269,446
2011	2,270,000	998,367	3,268,367
2012	2,370,000	896,691	3,266,691
2013	2,475,000	784,461	3,259,461
2014	2,595,000	662,498	3,257,498
2015-2018	<u>11,735,000</u>	<u>1,249,318</u>	<u>12,984,318</u>
	<u>\$ 23,625,000</u>	<u>\$ 5,680,781</u>	<u>\$ 29,305,781</u>

5. Commitments:

Toll Lane Implementation and Maintenance Contract:

Effective June 17, 2008, the Authority entered into a contract with Caseta Technologies for implementation of the electronic toll system, E-ZPass. The aggregate cost was not to exceed \$1,692,146 and included all hardware, software, set-up and training costs. The contract includes ongoing maintenance service through May 1, 2012.

E-ZPass Customer Service Contract:

Effective September 23, 2008, the Authority entered into a 3-year contract with Affiliated Computer Services of Newark, New Jersey to process E-ZPass transactions. The contract, based on traffic flow, includes options to extend and a tiered fee schedule for services. Services include:

- Maintaining the account information database
- Resolving disputes
- Debiting accounts based upon toll revenue charged to account holders
- Processing toll lane violations, including administrative violations
- Marketing

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

5. Commitments (continued):

Construction in progress:

The Authority has entered into various contracts for ongoing improvements to the bridges and property. As of June 30, 2009, remaining commitments on these contracts approximated \$4,170,000.

6. Tax deferred savings incentive plan:

The Authority sponsors an employee tax-deferred savings incentive 401(k) plan (the Rhode Island Turnpike & Bridge Authority Retirement Plan established in 1985), available to employees who meet the plan's eligibility requirements. The Plan is a defined contribution plan. The investments held by the Plan are managed by John Hancock and the Plan is administered by Sentinel Benefits. Under the 401(k) plan, employees may contribute up to 5% of compensation and the Authority provides a matching contribution. The Authority may also make a supplemental contribution such that its total annual contribution does not exceed 10% of employee adjusted net compensation. The 10% limit includes the aggregate of the life insurance costs as well as the 401(k) contribution. The employees' contribution to the Plan for fiscal year 2009 was approximately \$115,000, while the total cost of the matching and supplemental employer contribution for fiscal year 2009 was approximately \$120,000. The payroll for employees covered by the Plan for fiscal year 2009 was approximately \$1,460,000 and the Authority's total payroll was approximately \$2,160,000. The trustees of the Plan are currently comprised of two members of the Authority's Board of Directors and one employee. The trustees are responsible for establishing or amending the Plan's provisions and contributions. The Board of Directors of the Authority must approve all amendments to the Plan as the employer sponsor of the Plan.

7. Risk management:

The Authority is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; workers' compensation claims; and natural disasters for which the Authority carries commercial insurance. Settled claims resulting from these risks have not exceeded the Authority's coverage in any of the past three fiscal years and there have been no significant reductions in insurance coverage. Accordingly, management has not recorded a reserve for such claims at June 30, 2009.

8. Deficit net assets:

The Revenue Fund and General Fund had deficit net assets of (\$66,482) and (\$8,358), respectively, at June 30, 2009.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

9. Environmental remediation:

In 2008, the Authority recorded, as a prior period adjustment, an estimated liability of \$1,300,000 for environmental remediation at the Mount Hope Bridge. During 2009, expenditures incurred totaled approximately \$1,072,000 with an estimated \$40,000 remaining balance accrued at June 30, 2009.

Also in 2008, the Authority recorded an additional estimated environmental remediation liability of \$400,000 to manage lead-impacted soil at the Pell Bridge in Jamestown. Expenditures incurred during 2009 approximated \$96,000. Management does not anticipate any further costs associated with the remediation.

The changes in the estimate of costs associated with these remediation projects is reflected as an increase in net assets of \$491,470 for the year ended June 30, 2009.



Lefkowitz, Garfinkel, Champi & DeRienzo P.C.  
Certified Public Accountants / Business Consultants

**Independent Auditors' Report on Accompanying Information**

Our audit was conducted for the purpose of forming an opinion on the basic financial statements of the Rhode Island Turnpike and Bridge Authority, a Component Unit of the State of Rhode Island, taken as a whole. The accompanying supplementary information on pages 30 to 49 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, except for the portion marked "unaudited" on page 36, upon which we express no opinion, is fairly stated in all material respects, in relation to the basic financial statements taken as a whole.

*Lefkowitz, Garfinkel, Champi & DeRienzo P.C.*

September 23, 2009

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

COMBINING STATEMENT OF NET ASSETS - JUNE 30, 2009

	Principal Account	Interest Account	Debt Service Reserve Fund	Cost of Issuance Account	Subtotal Revenue Bond Fund	Construction Fund	Revenue Fund
<b>ASSETS:</b>							
Current assets:							
Cash and cash equivalents	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accounts receivable							
Accrued interest receivable							
Due from other funds							368
Inventory							
Prepaid expenses							
Restricted:							
Cash and cash equivalents	961,527	469,384			1,430,911		141,547
Investments			3,617,284		3,617,284		
Accounts receivable							42,682
Accrued interest receivable			17,823		17,823		
	<u>961,527</u>	<u>469,384</u>	<u>3,635,107</u>	<u>-</u>	<u>5,066,018</u>	<u>-</u>	<u>184,597</u>
Total current assets							
Noncurrent assets:							
Investments							
Bond issuance costs, net				127,860	127,860		
Capital assets:							
Bridges						59,846,700	
Buildings						641,267	
Land improvements							
Equipment							
Licensing fees							
Construction in progress							
						60,487,967	
Less accumulated depreciation						(25,425,740)	
						<u>35,062,227</u>	
Net capital assets							
				127,860	127,860	35,062,227	
Total noncurrent assets							
	961,527	469,384	3,635,107	127,860	5,193,878	35,062,227	184,597
Total assets							

(continued)

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

COMBINING STATEMENT OF NET ASSETS - JUNE 30, 2009 (CONTINUED)

	ETC Fund	Operating and Maintenance Fund	Operating and Maintenance Reserve Fund	Renewal and Replacement Fund	General Fund	Insurance Reserve Fund	Total all funds
<b>ASSETS:</b>							
Current assets:							
Cash and cash equivalents	\$ -	\$ 172,825	\$ -	\$ 3,284,196	\$ 1,655	\$ 1,583,900	\$ 5,042,576
Accounts receivable		717					717
Accrued interest receivable						308	308
Due from other funds	295,461	709,936		28,019		686,500	1,720,284
Inventory				412,677			412,677
Prepaid expenses		116,748					116,748
Restricted:							
Cash and cash equivalents	2,402,842	6,853	975,755				4,957,908
Investments							3,617,284
Accounts receivable	204,812						247,494
Accrued interest receivable							17,823
<b>Total current assets</b>	<b>2,903,115</b>	<b>1,007,079</b>	<b>975,755</b>	<b>3,724,892</b>	<b>1,655</b>	<b>2,270,708</b>	<b>16,133,819</b>
Noncurrent assets:							
Investments				15,153,445			15,153,445
Bond issuance costs, net							127,860
Capital assets:							
Bridges				52,862,171			112,708,871
Buildings				2,002,000			2,643,267
Land improvements				653,082			653,082
Equipment		489,809		5,117,163			5,606,972
Licensing fees				250,000			250,000
Construction in progress				2,867,339			2,867,339
<b>Less accumulated depreciation</b>		<b>489,809</b>		<b>63,751,755</b>			<b>124,729,531</b>
		<b>(301,067)</b>		<b>(10,789,448)</b>			<b>(36,516,255)</b>
<b>Net capital assets</b>		<b>188,742</b>		<b>52,962,307</b>			<b>88,213,276</b>
<b>Total noncurrent assets</b>		<b>188,742</b>		<b>68,115,752</b>			<b>103,494,581</b>
<b>Total assets</b>	<b>2,903,115</b>	<b>1,195,821</b>	<b>975,755</b>	<b>71,840,644</b>	<b>1,655</b>	<b>2,270,708</b>	<b>119,628,400</b>

(continued)

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

COMBINING STATEMENT OF NET ASSETS - JUNE 30, 2009 (CONTINUED)

	Principal Account	Interest Account	Debt Service Reserve Fund	Cost of Issuance Account	Subtotal Revenue Bond Fund	Construction Fund	Revenue Fund
<b>LIABILITIES:</b>							
Current liabilities:							
Accounts payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,471
Accrued interest payable		100,665			100,665		
Accrued expense							
Due to other funds							140,608
Prepaid and unredeemed tolls and tokens							102,000
Current portion of bonds payable						2,180,000	
Total current liabilities	-	100,665	-	-	100,665	2,180,000	251,079
Bonds payable, less current portion						21,503,887	
Total liabilities	-	100,665	-	-	100,665	23,683,887	251,079
<b>NET ASSETS:</b>							
Invested in capital assets, net of related debt						11,378,340	
Restricted, bond covenants	961,527	100,665	3,635,107		4,697,299		82,229
Unrestricted		268,054		127,860	395,914		(148,711)
Total net assets	<u>\$ 961,527</u>	<u>\$ 368,719</u>	<u>\$ 3,635,107</u>	<u>\$ 127,860</u>	<u>\$ 5,093,213</u>	<u>\$ 11,378,340</u>	<u>\$ (66,482)</u>

(continued)

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

COMBINING STATEMENT OF NET ASSETS - JUNE 30, 2009 (CONTINUED)

	ETC Fund	Operating and Maintenance Fund	Operating and Maintenance Reserve Fund	Renewal and Replacement Fund	General Fund	Insurance Reserve Fund	Total all funds
<b>LIABILITIES:</b>							
Current liabilities:							
Accounts payable	\$ 143,742	\$ 282,493	\$ -	\$ 1,694,243	\$ 10,013	\$ -	\$ 2,138,962
Accrued interest payable							100,665
Accrued expenses		373,345					373,345
Due to other funds		184,676		1,395,000			1,720,284
Prepaid and unredeemed tolls and tokens	1,406,582						1,508,582
Current portion of bonds payable							2,180,000
<b>Total current liabilities</b>	<b>1,550,324</b>	<b>840,514</b>	<b>-</b>	<b>3,089,243</b>	<b>10,013</b>	<b>-</b>	<b>8,021,838</b>
Bonds payable, less current portion							21,503,887
<b>Total liabilities</b>	<b>1,550,324</b>	<b>840,514</b>	<b>-</b>	<b>3,089,243</b>	<b>10,013</b>	<b>-</b>	<b>29,525,725</b>
<b>NET ASSETS:</b>							
Invested in capital assets, net of related debt		188,742		51,268,064			62,835,146
Restricted, bond covenants	2,463,912		975,755				8,219,195
Unrestricted	(1,111,121)	166,565		17,483,337	(8,358)	2,270,708	19,048,334
<b>Total net assets</b>	<b>\$ 1,352,791</b>	<b>\$ 355,307</b>	<b>\$ 975,755</b>	<b>\$ 68,751,401</b>	<b>\$ (8,358)</b>	<b>\$ 2,270,708</b>	<b>\$ 90,102,675</b>

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS

	YEAR ENDED JUNE 30, 2009						
	Principal Account	Interest Account	Debt Service Reserve Fund	Cost of Issuance Account	Subtotal Revenue Bond Fund	Construction Fund	Revenue Fund
Operating revenues:							
Tolls	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,341,531
Transponder sales							
Total operating revenues	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>9,341,531</u>
Operating expenses:							
Personnel services	-	-	-	-	-	-	-
Utilities							
Contractual services							
Other supplies and expenses							
Insurance							
Repairs and maintenance of system							
Transponder expense							
Environmental remediation							
Depreciation						624,310	
Total operating expenses	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>624,310</u>	<u>-</u>
Operating income (loss)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(624,310)</u>	<u>9,341,531</u>
Nonoperating revenues (expenses):							
Interest expense		(1,170,066)			(1,170,066)	24,032	
Amortization of bond issuance costs				(14,897)	(14,897)		
Amortization of bond discount						(17,172)	
Investment income, net of trustee fees	6,064	1,918	252,074		260,056		(58)
Miscellaneous income							4,869
Total nonoperating revenues (expenses)	<u>6,064</u>	<u>(1,168,148)</u>	<u>252,074</u>	<u>(14,897)</u>	<u>(924,907)</u>	<u>6,860</u>	<u>4,811</u>
Income (loss) before operating transfers	6,064	(1,168,148)	252,074	(14,897)	(924,907)	(617,450)	9,346,342
Transfers in (out)	(494,997)	1,183,709	(216,256)		472,456	2,105,000	(8,970,190)
Change in net assets	(488,933)	15,561	35,818	(14,897)	(452,451)	1,487,550	376,152
Net assets (deficiency), beginning of year	<u>1,450,460</u>	<u>353,158</u>	<u>3,599,289</u>	<u>142,757</u>	<u>5,545,664</u>	<u>9,890,790</u>	<u>(442,634)</u>
Net assets (deficiency), end of year	<u>\$ 961,527</u>	<u>\$ 368,719</u>	<u>\$ 3,635,107</u>	<u>\$ 127,860</u>	<u>\$ 5,093,213</u>	<u>\$ 11,378,340</u>	<u>\$ (66,482)</u>

(continued)

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS (CONTINUED)

	YEAR ENDED JUNE 30, 2009						Total all funds
	ETC Fund	Operating and Maintenance Fund	Operating and Maintenance Reserve Fund	Renewal and Replacement Fund	General Fund	Insurance Reserve Fund	
Operating revenues:							
Toll revenues	\$ 3,204,971	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,546,502
Transponder revenues	742,153						742,153
<b>Total operating revenues</b>	<b>3,947,124</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>13,288,655</b>
Operating expenses:							
Personnel services	-	2,547,860	-			-	2,547,860
Utilities		148,406					148,406
Contractual services		1,138,424					1,138,424
Other supplies and expenses		198,199					198,199
Insurance		1,253,495					1,253,495
Repairs and maintenance of system		452,618		1,641,392	40,437		2,134,447
Transponder expense				1,290,275			1,290,275
Environmental remediation				(491,470)			(491,470)
Depreciation		38,605		2,755,942			3,418,857
<b>Total operating expenses</b>	<b>-</b>	<b>5,777,607</b>	<b>-</b>	<b>5,196,139</b>	<b>40,437</b>	<b>-</b>	<b>11,638,493</b>
<b>Operating income (loss)</b>	<b>3,947,124</b>	<b>(5,777,607)</b>	<b>-</b>	<b>(5,196,139)</b>	<b>(40,437)</b>	<b>-</b>	<b>1,650,162</b>
Nonoperating revenues (expenses):							
Interest expense	-				-		(1,146,034)
Amortization of bond issuance costs							(14,897)
Amortization of bond discount							(17,172)
Investment income, net of trustee fees			14,485	1,208,345		19,184	1,502,012
Miscellaneous income		561		88,666			94,096
<b>Total nonoperating revenues (expenses)</b>	<b>-</b>	<b>561</b>	<b>14,485</b>	<b>1,297,011</b>	<b>-</b>	<b>19,184</b>	<b>418,005</b>
<b>Income (loss) before operating transfers</b>	<b>3,947,124</b>	<b>(5,777,046)</b>	<b>14,485</b>	<b>(3,899,128)</b>	<b>(40,437)</b>	<b>19,184</b>	<b>2,068,167</b>
Transfers in (out)	(2,594,333)	5,389,345		3,567,722	30,000		-
<b>Change in net assets</b>	<b>1,352,791</b>	<b>(387,701)</b>	<b>14,485</b>	<b>(331,406)</b>	<b>(10,437)</b>	<b>19,184</b>	<b>2,068,167</b>
Net assets (deficiency), beginning of year	-	743,008	961,270	69,082,807	2,079	2,251,524	88,034,508
<b>Net assets (deficiency), end of year</b>	<b>\$ 1,352,791</b>	<b>\$ 355,307</b>	<b>\$ 975,755</b>	<b>\$ 68,751,401</b>	<b>\$ (8,358)</b>	<b>\$ 2,270,708</b>	<b>\$ 90,102,675</b>

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF TRAFFIC COUNT AND REVENUES

YEAR ENDED JUNE 30, 2009

	<u>Claiborne Pell Bridge</u>
Traffic count (unaudited):	
Two-axle vehicle fares paid with cash	2,620,377
Vehicle fares paid with tokens, tickets and ETC	<u>7,333,433</u>
	<u>9,953,810</u>
Toll revenues (audited):	
Two-axle vehicle fares paid with cash	\$ 5,240,754
Vehicle fares paid with tokens, tickets and ETC	<u>7,305,748</u>
Total toll revenues	<u>\$ 12,546,502</u>

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF CASH AND INVESTMENTS

JUNE 30, 2009

**Restricted cash and cash equivalents:**

**Revenue Refunding Bond Fund - Principal Account**

US Bank - First American Treasury Funds - 100% collateralized \$ 961,527

**Revenue Refunding Bond Fund - Interest Account**

US Bank - First American Treasury Funds - 100% collateralized 469,384

**Revenue Fund**

Citizens Bank 137,942

US Bank - First American Treasury Funds - 100% collateralized 3,605

**ETC Fund**

Bank of America 2,402,842

**Operating and Maintenance Fund**

Citizens Bank 6,853

**Operating and Maintenance Reserve Fund**

BNY Mellon - Money Market Funds 975,755

**Total restricted cash and cash equivalents** 4,957,908

**Restricted investments:**

**Debt Service Reserve Fund**

US Bank:  
Federal Home Loan, \$3,618,000, 6.16%, due 9/29/09 3,617,284

**Total restricted investments** 3,617,284

**Total restricted cash, cash equivalents and investments** 8,575,192

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF CASH AND INVESTMENTS (CONTINUED)

JUNE 30, 2009

**Unrestricted cash and cash equivalents:**

**Operating and Maintenance Fund**

Citizens Bank	\$ 169,405
On hand - petty cash	3,420
	<hr/>
	172,825
	<hr/>

**Renewal and Replacement Fund**

Bank Newport - Money Market Fund	86,928
Citizens Bank	159,751
BNY Mellon - Money Market Fund	3,037,517
	<hr/>
	3,284,196
	<hr/>

**General Fund**

Citizens Bank	1,655
	<hr/>

**Insurance Reserve Fund**

Citizens Bank	3,900
Collateralized repurchase agreements:	
\$525,000, 5%, due August 6, 2009	525,000
\$525,000, 5%, due August 27, 2009	525,000
\$530,000, 5%, due July 16, 2009	530,000
	<hr/>
	1,583,900
	<hr/>

**Total unrestricted cash and cash equivalents**

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5,042,576

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF CASH AND INVESTMENTS (CONTINUED)

JUNE 30, 2009

**Unrestricted investments:**

**Renewal and Replacement Fund**

**BNY Mellon Short-Term Portfolio**

United States Treasury/Agency Securities:

440,000	1.750% due	3/31/2010 US Treasury Note	\$	444,228
140,000	4.500% due	5/15/2010 US Treasury Note		144,862
385,000	2.750% due	7/31/2010 US Treasury Note		394,009
320,000	5.750% due	8/15/2010 US Treasury Note		338,426
315,000	4.125% due	8/15/2010 US Treasury Note		327,515
410,000	4.500% due	11/15/2010 US Treasury Note		431,254
360,000	4.375% due	12/15/2010 US Treasury Note		378,828
360,000	4.250% due	1/15/2011 US Treasury Note		378,648
360,000	4.625% due	8/31/2011 US Treasury Note		385,988
415,000	4.625% due	2/29/2012 US Treasury Note		449,723
200,000	1.375% due	5/15/2012 US Treasury Note		198,876
20,000	4.000% due	11/15/2012 US Treasury Note		21,436
100,000	3.000% due	3/3/2011 Federal Farm Credit Bank		103,219
5,000	2.625% due	4/21/2011 Federal Farm Credit Bank		5,130
100,000	3.875% due	8/25/2011 Federal Farm Credit Bank		105,188
130,000	2.250% due	4/24/2012 Federal Farm Credit Bank		131,463
65,000	2.125% due	6/18/2012 Federal Farm Credit Bank		65,224
100,000	4.875% due	11/18/2011 Federal Home Loan Banks		107,875
140,000	2.125% due	3/23/2012 Federal Home Loan Mortgage Corp		141,268
70,000	1.750% due	3/23/2011 Federal National Mortgage Assn		70,657
170,000	2.500% due	2/17/2012 Federal National Mortgage Assn		170,532

Corporate bonds:

130,000	3.125% due	12/1/2011 JPMorgan Chase & Co		134,479
115,000	3.000% due	12/9/2011 General Elec Cap Corp		118,640
115,000	3.250% due	12/9/2011 Regions Bank		119,321
70,000	3.000% due	12/9/2011 Wells Fargo & Company		72,334
115,000	3.125% due	6/15/2012 Bank of America Corp		118,605
95,000	3.250% due	6/15/2012 Goldman Sachs Grp Inc		98,315
120,000	3.200% due	6/15/2012 Key Bank Na		124,052

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF CASH AND INVESTMENTS (CONTINUED)

JUNE 30, 2009

**Unrestricted investments (continued):**

**Renewal and Replacement Fund (continued)**

BNY Mellon Intermediate Portfolio

United States Treasury/Agency Securities:

230,000	4.000% due	8/31/2009	United States Treasury Note	\$	231,419
1,765,000	4.250% due	1/15/2011	United States Treasury Note		1,856,427
315,000	4.625% due	8/31/2011	United States Treasury Note		337,740
180,000	4.625% due	2/29/2012	United States Treasury Note		195,061
140,000	4.000% due	11/15/2012	United States Treasury Note		150,052
55,000	4.250% due	8/15/2013	United States Treasury Note		59,464
85,000	5.125% due	5/15/2016	United States Treasury Note		95,333
40,000	3.250% due	5/31/2016	United States Treasury Note		40,175
100,444	5.750% due	1/15/2017	United States Treasury Inflation Indexed Bonds		104,808
84,047	1.375% due	7/15/2018	United States Treasury Inflation Indexed Bonds		81,474
100,444	2.375% due	1/15/2027	United States Treasury Inflation Indexed Bonds		103,991
40,000	2.000% due	4/27/2012	Federal Home Loan Mortgage Corp		39,984
125,000	3.000% due	4/21/2014	Federal Home Loan Mortgage Corp		123,655
200,000	2.500% due	5/15/2014	Federal National Mortgage Assn		196,626

State bonds:

30,000.00	7.550% due	4/1/2039	California ST		27,418
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Corporate bonds:

45,000	7.750% due	8/1/2010	Axa Finl Inc		45,124
40,000	4.500% due	10/28/2010	Bear Stearns Co. Inc.		40,912
75,000	5.750% due	6/15/2011	Aetna Inc		78,409
55,000	5.750% due	6/15/2011	Intl Lease Finance Corp		45,609
95,000	7.000% due	3/15/2012	Deere John Cap Corp NT DTD		104,325
55,000	5.400% due	3/15/2012	Intuit Inc		55,536
100,000	2.100% due	4/30/2012	Bank of America Corp		100,152
50,000	5.750% due	5/1/2012	Simon Property Group LP		50,802
45,000	5.875% due	8/15/2012	SBC Communications Inc		48,296
50,000	5.375% due	10/1/2012	JP Morgan Chase & Co		52,364
50,000	5.500% due	4/1/2013	Diageo Finance Bv		52,567
50,439	6.250% due	4/15/2013	Tsy Infl IX N/B		49,840
50,000	5.300% due	10/15/2013	Crh America Inc		46,569
50,000	6.375% due	3/1/2014	Rogers Wireless Inc		53,593
75,000	4.750% due	4/1/2014	Morgan Stanley Global		70,844
120,000	5.000% due	6/30/2015	Hsbc Finance Corp		111,816
75,000	5.500% due	1/15/2016	Johnson Controls Inc		69,544
50,000	5.500% due	2/22/2016	Cisco Systems Inc		52,970
100,000	5.900% due	3/15/2016	Comcast Corp		103,442
100,000	5.750% due	8/15/2016	Bank of America Corp		86,767
110,000	5.625% due	9/15/2017	General Elec Cap Corp		105,276
100,000	6.125% due	11/21/2017	Citigroup Inc		87,676
20,000	5.170% due	1/1/2018	Aep Texas Central Trans		20,502

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF CASH AND INVESTMENTS (CONTINUED)

JUNE 30, 2009

**Unrestricted investments (continued):**

**Renewal and Replacement Fund (continued)**

BNY Mellon Intermediate Portfolio (continued)

Corporate bonds:

80,000	5.500% due	2/15/2018 Verizon Communications	\$ 79,449
70,000	5.750% due	4/15/2018 Oracle Corp	73,839
85,000	7.900% due	11/1/2018 Pepsico Inc	103,411
50,000	7.717% due	2/15/2019 Met Life Glob Funding I	53,482
50,000	5.650% due	2/15/2019 General Mills Inc	52,258
60,000	8.250% due	4/1/2019 Time Warner Cable Inc	68,077
35,000	7.000% due	10/30/2025 International Business Machs Corp	39,745
25,000	6.150% due	3/1/2037 News America Inc	21,203
75,000	6.500% due	8/15/2037 Wal-Mart Stores Inc	83,806
50,000	6.500% due	9/1/2037 AT&T Inc	49,593
45,000	6.750% due	10/1/2037 Goldman Sachs Grp Inc	40,005
55,000	6.125% due	7/15/2038 United Technologies Corp	59,698

Asset-backed security trusts:

17,183	4.500% due	3/1/2021 Federal Home Loan Mortgage Corp Gold Passthru	17,703
42,821	5.000% due	6/1/2028 Federal Home Loan Mortgage Corp Gold Passthru	43,953
41,581	5.000% due	7/1/2028 Federal Home Loan Mortgage Corp Gold Passthru	42,681
26,842	5.500% due	6/1/2034 Federal Home Loan Mortgage Corp Gold Passthru	27,828
44,782	7.000% due	8/1/2036 Federal Home Loan Mortgage Corp Gold Passthru	48,237
45,053	Adj due	4/1/2037 Federal Home Loan Mortgage Corp Gold Passthru	47,500
109,410	5.500% due	1/1/2038 Federal Home Loan Mortgage Corp Gold Passthru	113,153
33,007	5.000% due	3/1/2021 Federal National Mortgage Assn Passthru CTF Pool	34,459
79,102	4.000% due	4/1/2024 Federal National Mortgage Assn Passthru CTF Pool	79,234
105,720	6.000% due	9/1/2034 Federal National Mortgage Assn Passthru CTF Pool	111,173
339,460	5.500% due	7/1/2035 Federal National Mortgage Assn Passthru CTF Pool	351,708
369,352	5.500% due	10/1/2035 Federal National Mortgage Assn Passthru CTF Pool	382,678
78,015	4.500% due	1/1/2036 Federal National Mortgage Assn Passthru CTF Pool	78,197
32,365	5.000% due	2/1/2036 Federal National Mortgage Assn Passthru CTF Pool	33,067
66,483	5.500% due	4/1/2036 Federal National Mortgage Assn Passthru CTF Pool	68,881
17,530	6.000% due	9/1/2036 Federal National Mortgage Assn Passthru CTF Pool	18,434
39,971	6.500% due	10/1/2036 Federal National Mortgage Assn Passthru CTF Pool	42,639
44,113	Adj due	5/1/2037 Federal National Mortgage Assn Passthru CTF Pool	46,264
46,543	6.500% due	8/1/2037 Federal National Mortgage Assn Passthru CTF Pool	49,635
65,871	6.000% due	10/1/2037 Federal National Mortgage Assn Passthru CTF Pool	68,940
343,010	6.000% due	12/1/2037 Federal National Mortgage Assn Passthru CTF Pool	360,984
51,101	6.500% due	12/1/2037 Federal National Mortgage Assn Passthru CTF Pool	54,496
128,167	5.500% due	2/1/2038 Federal National Mortgage Assn Passthru CTF Pool	132,483
95,904	5.500% due	3/1/2038 Federal National Mortgage Assn Passthru CTF Pool	99,134
204,478	6.500% due	4/1/2038 Federal National Mortgage Assn Passthru CTF Pool	218,049

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF CASH AND INVESTMENTS (CONTINUED)

YEAR ENDED JUNE 30, 2009

**Unrestricted investments (continued):**

**Renewal and Replacement Fund (continued)**

BNY Mellon Intermediate Portfolio (continued)

Asset-backed security trusts (continued):

392,437	5.000% due	4/15/2038	Federal National Mortgage Assn Passthu CTF Pool	\$	400,961
244,330	6.000% due	6/1/2038	Federal National Mortgage Assn Passthu CTF Pool		255,363
60,000	5.110% due	10/25/2006	Honda Auto Receivables Owner Trust		61,576
8,717	5.750% due	6/15/2012	Harley-Davidson Motorcycle Trust		8,863
68,704	5.100% due	7/16/2012	Nissan Auto Lease Trust Passthu CTF		68,730
40,000	5.210% due	6/15/2013	Harley-Davidson Motorcycle Trust		40,922
50,000	5.330% due	11/19/2013	Household Automotive Trust		49,664
62,689	5.050% due	4/20/2014	Cit Equipment Collateral Passthu		63,060
90,000	5.840% due	7/15/2044	LB Commercial Conduit Mortgage Trust		83,695
45,000	5.448% due	1/15/2049	Credit Suisse Mortgage Capital		41,477
30,000	5.331% due	3/12/2051	Merrill Lynch/Countrywide Commercial		26,401

**Total unrestricted investments** 15,153,445

**Total unrestricted cash, cash equivalents and investments** 20,196,021

**Total cash, cash equivalents and investments** \$ 28,771,213

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF TRAVEL AND ENTERTAINMENT EXPENSES

YEAR ENDED JUNE 30, 2009

Check Number	Date Paid	Payee	Purpose	Amount
9588	07/09/08	Spinnakers Café	7/9/08 Board Meeting	\$ 33
Payroll	07/15/08	M. Smith	Mileage	9
Payroll	07/15/08	C. Callahan	Mileage	33
9593	07/29/08	JoAnn Head	B. Croft Parking & Lunch	40
9603	08/16/08	American Express	Train Fare: B. Croft & C. Callahan	450
9658	08/06/08	Spinnakers Café	8/6/08 Board Meeting	31
9673	08/16/08	American Express	Travel - IBTTA Meeting	725
9711	09/23/08	American Express	Travel - B. Croft - Philadelphia	318
Payroll	09/23/08	A. DellaPosta	Mileage	161
9755	10/07/08	Newport County C of C	10/27 Luncheon - B. Croft	25
Payroll	10/07/08	A. DellaPosta	Mileage	175
Payroll	10/07/08	J. Sullivan	Mileage	186
9779	10/27/08	American Express	B. Croft - Baltimore Trip	366
9790	10/16/08	A. Fletcher	Mileage	105
9830	11/05/08	East Ferry Deli	9/24 & 11/5 Board Meeting	76
Payroll	11/18/08	A. DellaPosta	Mileage	88
9852	11/28/08	American Express	B. Croft - Parking	10
9852	11/28/08	American Express	C. Callahan Texas trip re: E-Z Pass	743
9852	11/28/08	American Express	M. Hillier Texas trip re: E-Z Pass	743
Payroll	12/02/08	J. Sepulveda	Mileage	47
Payroll	12/02/08	S. Schroer	Mileage	60
9883	12/03/08	J. Head - Petty Cash	MADD Event 11/25	124
9883	12/03/08	J. Head - Petty Cash	E-Z Pass workers - VJ Day	26
9893	12/09/08	C. Callahan	Texas trip - re: E-Z Pass expenses	737
9893	12/09/08	M. Hillier	Texas trip - re: E-Z Pass expenses	664
9897	12/10/08	East Ferry Deli	12/10/08 Board Meeting	37
9899	12/10/08	A. Fletcher	Mileage	105

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RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF TRAVEL AND ENTERTAINMENT EXPENSES (CONTINUED)

YEAR ENDED JUNE 30, 2009

Check Number	Date Paid	Payee	Purpose	Amount
9917	12/16/08	American Express	N Y trip - Train & Cabs - B. Croft	\$ 254
Payroll	12/16/08	A. DellaPosta	Mileage	89
9975	12/22/08	Spinnakers Café	E-Z Pass Meeting	34
10000	01/07/09	East Ferry Deli	1/14 Board Meeting	37
Payroll	01/13/09	J. Sullivan	Mileage	196
10028	01/17/09	American Express	B. Croft Air Fare \$239 & Hyatt \$86	325
10028	01/17/08	American Express	K. O'Connor - Air Fare	496
Payroll	02/24/09	K. Fullerton	Mileage	48
Payroll	02/24/09	K. Leber	Mileage	47
10029	02/06/09	Grtr. Prov. Chamber of C.	D. Darlington 2/11 Luncheon	60
Payroll	02/10/09	J. Sullivan	Mileage	222
10036	02/20/08	Grtr. Prov. Chamber of C.	B. Croft 3/30 Congressional Breakfast	40
10040	02/16/09	American Express	B. Croft - IBTTA Meeting 1/21 - 23	352
10076	02/28/09	R.I. Services Coffee Plus		123
10082	02/28/08	T's Catering		450
Payroll	03/10/09	K. Fullerton	Mileage	92
Payroll	03/10/09	K. Leber	Mileage	102
Payroll	03/10/09	J. Sullivan	Mileage	199
Payroll	03/24/09	K. Fullerton	Mileage	45
Payroll	03/24/09	K. Leber	Mileage	53
10160	04/03/09	R. I. Economic Development	B. Croft - 5/13/ Luncheon	40
10161	04/06/09	J. Head - Petty Cash	Training Meeting 12/12	56
10161	04/06/09	J. Head - Petty Cash	Training Meeting 12/15	33
10161	04/06/09	J. Head - Petty Cash	B. Croft - Cab Fares	40
10161	04/06/09	J. Head - Petty Cash	B. Croft - Parking	26
10161	04/06/09	J. Head - Petty Cash	Coffee An - T & R Interviews	24
10201	04/06/09	McQuade's Marketplace	Lunch - T & R Interviews	46

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RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF TRAVEL AND ENTERTAINMENT EXPENSES (CONTINUED)

YEAR ENDED JUNE 30, 2009

Check Number	Date Paid	Payee	Purpose	Amount
Payroll	04/07/09	K. Fullerton	Mileage	\$ 88
Payroll	04/07/09	K. Leber	Mileage	99
Payroll	04/07/09	J. Sullivan	Mileage	209
Payroll	04/21/09	K. Fullerton	Mileage	97
Payroll	04/21/09	K. Leber	Mileage	108
10180	04/23/09	American Express	B. Croft - Philadelphia Trip 4/09	391
10191	04/23/09	East Ferry Deli	3/11 Board Meeting	37
10191	04/23/09	East Ferry Deli	4/15 Board Meeting	37
10174	04/27/09	Newport County C of C	B. Croft - 5/8 Meeting	25
Payroll	5/5/2009	K. Fullerton	Mileage	50
Payroll	05/05/09	K. Leber	Mileage	56
Payroll	05/05/09	J. Sullivan	Mileage	243
10232	05/06/09	East Ferry Deli	5/6 Board Meeting	43
10260	05/31/09	American Express	B. Croft - Florida Air Fare & Parking	280
Payroll	06/02/09	K. Fullerton	Mileage	198
Payroll	06/02/09	K. Leber	Mileage	158
Payroll	06/02/09	J. Sullivan	Mileage	238
Payroll	06/02/09	A. DellaPosta	Mileage	133
10301	06/02/09	A. Fletcher	Mileage	198
Payroll	06/16/09	K. Fullerton	Mileage	98
Payroll	06/16/09	K. Leber	Mileage	81
10293	06/17/09	N.E. Consortium of State	B. Croft - 7/30 & 31 Conference	295
Payroll	06/30/09	K. Fullerton	Mileage	91
Payroll	06/30/09	K. Leber	Mileage	80
				\$ 12,979

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RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

STATE OF RHODE ISLAND REQUIRED FORMAT

YEAR ENDED JUNE 30, 2009

<u>Statement of Net Assets</u>	<u>Attachment B</u>
<b>Assets</b>	
Current assets:	
Cash and cash equivalents	\$ 5,042,576
Investments	
Receivables	1,025
(Receivables allowance)	
Restricted assets:	
Cash and cash equivalents	4,957,908
Investments	3,617,284
Other assets	265,317
Due from primary government	
Due from other governments	
Inventories	412,677
Other assets	116,748
Total current assets	<u>14,413,535</u>
Noncurrent assets:	
Investments	15,153,445
Receivables	
(Receivables allowance)	
Restricted assets:	
Cash and cash equivalents	
Investments	
Other assets	
Capital assets - nondepreciable	3,117,339
Capital assets - depreciable (net)	85,095,937
Other assets, net of amortization	127,860
Total noncurrent assets	<u>103,494,581</u>
Total assets	<u>117,908,116</u>

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

STATE OF RHODE ISLAND REQUIRED FORMAT

YEAR ENDED JUNE 30, 2009

<u>Statement of Net Assets (continued)</u>	<u>Attachment B</u>
<b>Liabilities</b>	
Current liabilities:	
Cash overdraft	
Accounts payable	\$ 2,138,962
Due to primary government	
Due to (from) other component units	
Due to other governments	
Deferred revenue	1,508,582
Other liabilities	474,010
Current portion of long-term debt	2,180,000
Total current liabilities	<u>6,301,554</u>
Noncurrent liabilities:	
Due to primary government	
Due to other governments	
Deferred revenue	
Notes payable	
Loans payable	
Obligations under capital leases	
Other liabilities	
Compensated absences	
Bonds payable	21,503,887
Total noncurrent liabilities	<u>21,503,887</u>
Total liabilities	<u>27,805,441</u>
<b>Net assets</b>	
Invested in capital assets, net of related debt	62,835,146
Restricted for:	
Debt	8,219,195
Other	
Other nonexpendable	
Unrestricted	19,048,334
Total net assets	<u>\$ 90,102,675</u>

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

STATE OF RHODE ISLAND REQUIRED FORMAT

YEAR ENDED JUNE 30, 2009

<u>Statement of Changes in Net Assets</u>	<u>Attachment C</u>
<b>Operating revenues:</b>	
Charges for services	\$ 12,546,502
Interest income on loans	
Interest on investments	
Net increase (decrease) in fair value of investments	
Other operating income	742,153
Total operating revenues	<u>13,288,655</u>
<b>Operating expenses:</b>	
Personal services	2,547,860
Supplies, materials, and services	5,671,776
Interest expense	
Grants, scholarships and contract programs	
Depreciation, depletion and amortization	3,418,857
Other operating expenses	
Total operating expenses	<u>11,638,493</u>
Operating income (loss)	<u>1,650,162</u>
<b>Nonoperating revenues (expenses):</b>	
Interest revenue	1,001,416
Grants	
Payments from primary government	
Gain (loss) on sale of property	
Interest expense	(1,146,034)
Payments (to) from other component units	
Net increase (decrease) in fair value of investments	500,596
Other nonoperating revenue (expenses)	62,027
Total nonoperating revenue (expenses)	<u>418,005</u>
Income (loss) before contributions	2,068,167
Capital contributions	
Special items	
Extraordinary items	
Change in net assets	<u>2,068,167</u>
Total net assets - beginning	88,034,508
Total net assets - ending	<u>\$ 90,102,675</u>

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

STATE OF RHODE ISLAND REQUIRED FORMAT

YEAR ENDED JUNE 30, 2009

	<u>Long-Term Debt</u>	<u>Attachment D</u>
Fiscal Year Ending June 30, 2009	Principal	Interest
2010	\$ 2,180,000	\$ 1,089,446
2011	2,270,000	998,367
2012	2,370,000	896,691
2013	2,475,000	784,461
2014	2,595,000	662,498
2015 - 2018	11,735,000	1,249,318
	\$ 23,625,000	\$ 5,680,781



Lefkowitz, Garfinkel, Champi & DeRienzo P.C.  
Certified Public Accountants / Business Consultants

**Independent Auditors' Report on Internal Control over  
Financial Reporting and on Compliance and Other Matters  
Based on an Audit of Financial Statements Performed in  
Accordance with Government Auditing Standards**

Board of Directors  
Rhode Island Turnpike and Bridge Authority  
Jamestown, Rhode Island

We have audited the financial statements of the Rhode Island Turnpike and Bridge Authority (the Authority), a Component Unit of the State of Rhode Island, as of and for the year ended June 30, 2009 and have issued our report thereon dated September 23, 2009. We conducted our audit in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States.

**Internal Control over Financial Reporting**

In planning and performing our audit, we considered the Authority's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control over financial reporting.

Our consideration of internal control over financial reporting was for the limited purpose described in the preceding paragraph and would not necessarily identify all deficiencies in internal control over financial reporting that might be significant deficiencies or material weaknesses. However, as discussed below, we identified certain deficiencies in internal control over financial reporting that we consider to be significant deficiencies.

A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the Authority's ability to initiate, authorize, record, process, or report financial data reliably in accordance with accounting principles generally accepted in the United States such that there is more than a remote likelihood that a misstatement of the Authority's financial statements that is more than inconsequential will not be prevented or detected by the Authority's internal control. We consider the deficiencies described in the accompanying schedule of findings and responses to be significant deficiencies in internal control over financial reporting.

**Independent Auditors' Report on Internal Control over Financial Reporting and  
on Compliance and Other Matters Based on an Audit of Financial Statements  
Performed in Accordance with Government Auditing Standards (Continued)**

Board of Directors  
Rhode Island Turnpike and Bridge Authority

Internal Control over Financial Reporting (Continued)

A material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or detected by the Authority's internal control.

Our consideration of the internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in internal control that might be significant deficiencies and, accordingly, would not necessarily disclose all significant deficiencies that are also considered to be material weaknesses. However, of the significant deficiencies described in the accompanying schedule of findings and responses we consider Items 09-01, 09-02 and 09-03 to be material weaknesses.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under Government Auditing Standards.

The Authority's responses to the significant deficiencies identified in our audit are described in the accompanying schedule of findings and responses. We did not audit the Authority's responses and, accordingly, we express no opinion on them.

This report is intended solely for the information and use of the Board of Directors, management and the State of Rhode Island Auditor General, and is not intended to be and should not be used by anyone other than these specified parties.

*Leffkowitz, Jan. Jankel, Charney & DeGennaro, P.C.*

September 23, 2009

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF FINDINGS AND RESPONSES

YEAR ENDED JUNE 30, 2009

**Item 09-1 Financial Reporting Close Process**

*Observation:*

The annual financial close process relating to the preparation of the Authority's financial statements was not effective in the timely preparation of accurate financial statements that comply with accounting principles generally accepted in the United States (U.S. GAAP). Several corrections to the Authority's general ledger account balances and subsidiary records and schedules resulted in proposed audit adjustments that were material to the financial statements. We also noted a lack of timely recording of revenue and cash transactions resulting from the implementation of the E-ZPass system which became operative in January 2009. This affected many general ledger accounts and caused delays in the audit process.

*Recommendation:*

We recommend that the Authority evaluate the adequacy of its financial close process, the capabilities of its finance department personnel and controls surrounding the timely recording of financial information, including the preparation of complete and accurate financial statements in accordance with U.S. GAAP. Performing regular account reconciliations, accurately recording activities in the general ledger monthly, and timely review of financial information and financial statements by a capable individual will assist in the timely and accurate preparation of both monthly and year-end financial statements and provide the Board of Directors with reliable monthly financial information. In addition, maintaining schedules with a financial statement focus will facilitate the relatively quick turnaround required for the annual year-end financial statement submission to the State.

*Management's Response:*

With the introduction of E-ZPass, the customer service center became an added responsibility of the finance department and the finance assistant became the customer service center supervisor. In addition to hiring a number of temporary employees, the administrative staff, including the finance staff, was required to take on additional responsibilities to meet the volume of applications and processing necessary to get the program up and running. The result being that for a period of time, routine day-to-day tasks, such as collector audits were not being performed in a timely manner. A further complication was bugs in the software program that were only recently resolved by Caseta in spite of the continued requests to resolve this situation. The CFO and CSC supervisor were provided limited financial report training by Affiliated Computer Services (ACS) when E-ZPass was introduced and the CFO was not given access to the web-based report software, Actuate, until mid-February following a trip to Newark. The trip to Newark for training consisted of an explanation of reports, but no hands-on instruction of the software. Communication over the telephone was very difficult because it was hard to understand the employees with English as a second language.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF FINDINGS AND RESPONSES (CONTINUED)

YEAR ENDED JUNE 30, 2009

**Item 09-1 Financial Reporting Close Process (Continued)**

*Management's Response (Continued):*

Although the finance office was performing its usual reconciliations with all other accounts and reviewing monthly financial information, it was difficult to reconcile the EZ-Pass accounts as the reports provided by ACS didn't reconcile with bank statements, Caseta reports or the CFO's reports. A request for a meeting with ACS was made in mid-July and it wasn't until the week before the audit was scheduled that the ACS staff finally met with the CFO to clarify questions and information that she had sought answers to in the prior months. With limited time to properly prepare for the audit and no assistant, the closing process was difficult. With the implementation of electronic toll collection, the Authority's operation has changed and based on these changes and the results of the audit and we are in the process of reorganizing the finance staff, including the CFO's position.

**Item 09-2 Accounting for and Recording Capital Assets**

*Observation:*

It has historically been the Authority's policy to capitalize (record as an asset) expenditures related to contracted projects in a Construction in Progress account, a non-depreciating account. The Authority generally had not begun depreciating such expenditures or reviewed them against appropriate capitalization criteria until the contract had expired, all work had been completed (including inspections) and final payments (including retainage) had been made. However, as brought to the Authority's attention last year, some of the contracts extend over a multi-year period, during which time much of the work is, in fact, substantially complete and being used by the Authority and its customers or is of such a nature that it does not meet capitalization criteria. U.S. GAAP requires placing into service and depreciating such assets once substantially complete. In addition, we noted capitalized expenditures related to bridge inspections and studies which do not qualify to be capitalized as defined by U.S. GAAP and which should be expensed.

*Recommendation:*

We recommend that the Authority reclassify from construction in progress to the capital asset accounts any contract expenditures that have been placed in service, whether or not the contract is completed or all payments have been made thereon. Furthermore, depreciation of such capital expenditures should begin once the asset is placed in service. Expenditures that do not meet capitalization criteria should be expensed as incurred in accordance with the accrual basis of accounting. Enhanced communication between engineering and the finance department will facilitate the timely recording of capital and non-capital activity. Inquiries should be made by finance personnel upon the inception of a contracted project to determine if the related expenditures will meet the criteria of a capital asset and, if so, the useful life over which the asset will be amortized. In addition, inquiries should be made towards the end of reporting periods regarding the status of construction projects to ensure appropriate financial recording and reporting.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF FINDINGS AND RESPONSES (CONTINUED)

YEAR ENDED JUNE 30, 2009

**Item 09-2 Accounting for and Recording Capital Assets (Continued)**

*Management's Response:*

It has not been the practice of the Authority in the past to capitalize either bridge inspections or studies as evidenced by the expense of the risk management study and the fiscal integrity study this fiscal year. It has been the past practice, however, to include the design phase of a capital project in CIP. The design phase develops the specifications for the work before any major project is put out to bid. If for any reason a project were not to go forward the cost of design would be expensed. The degree of completion was not raised as an issue until last year's audit when the Mount Hope on-call expense and the Pell Bridge main cable inspection expense were capitalized by an auditor proposed adjustment which we accepted. The additional expenses incurred during this year were added to the capitalization schedule. The Pell Bridge on-call expense was not included in last year's adjustment despite the fact that two years of the three-year contract were completed.

**Item 09-3 Toll Collections and E-ZPass System**

*Observation:*

With the implementation of the E-ZPass automated toll collection system, the Authority contracted with ACS to perform transaction processing and recording. Under this contract, ACS summarizes key financial accounting and reporting information. It is critical that the Authority's management and finance personnel evaluate the controls with which ACS processes these transactions and summarizes data in the form of monthly and ad hoc reports. It is equally important for the Authority to implement controls to analyze reported data from ACS and reconcile such to its own reports and schedules. Otherwise, the Authority will be relying solely on ACS and will not be able to identify errors or potential fraud.

We noted that the Authority has not assessed the integrity of internal controls in place at ACS. Furthermore, the Authority did not obtain a copy of the SAS 70 report from ACS related to New Hampshire's system (which appears somewhat similar to Rhode Island's) until August 2009 and, as a result, the recommended user controls for the E-ZPass system were not implemented timely. It appears that the information necessary to timely and properly record E-ZPass transactions is provided by ACS.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF FINDINGS AND RESPONSES (CONTINUED)

YEAR ENDED JUNE 30, 2009

**Item 09-3 Toll Collections and E-ZPass System (Continued)**

*Recommendation:*

We recommend that the Authority ensure that a SAS 70 audit is performed over ACS's internal controls and that this report cover at least six months of the Authority's fiscal year. This report should be evaluated and a determination should be made as to whether the Authority will rely upon ACS's transaction processing and summarized information by implementing the appropriate user controls recommended by the SAS 70 auditors. In addition, the Authority should design and implement its own processes and internal controls, which will likely include controls over the physical safeguarding of electronic toll collection equipment, transponders, hardware and software which may not be covered by the SAS 70 report. In the event that the Authority chooses not to obtain a SAS 70 report, we recommend that controls be designed utilizing the Telvent information system to corroborate the information provided by ACS and that any discrepancies be reconciled prior to recording of ACS recommended entries. Any differences between ACS and Telvent should be investigated before the Authority posts revenue to its general ledger.

*Management's Response:*

Now that a better understanding of ACS's reports has been achieved, appropriate reconciliations will be performed and reports devised. In addition, the CFO is working with ACS to gain access to a report at the end of each month that will allow for an accurate reconciliation between the ACS and Caseta data. The auditors agreed to accept New Hampshire's SAS 70 and it was forwarded to them as soon as it was received. In future years, it will be incumbent upon the Authority's Board to determine whether they will require their own SAS 70 or rely on someone else's. At the present time, the Authority's electronic toll collection equipment, hardware and software is protected by a backup generator and the transponders are kept in a secure location and accounted for by a daily inventory.

**Item 09-4 Equity Reconciliation and Account Analyses**

*Observation:*

The June 30, 2009 general ledger that was provided to the auditors had not been adequately reviewed; for example, the net asset balance was different from the prior year's financial statement net assets balance. The auditors were able to locate the cause and proposed an adjustment to correct the Authority's net asset balance.

In the prior year, the Authority provided a reserve for remediation of certain environmental issues that had come to its attention. At June 30, 2009, although inquiries had been made, a review had not been performed as to whether the remediation reserve was adequate for future costs to be incurred or if, in fact, the remediation had been satisfactorily completed. As a result, the unadjusted reserve remained on the general ledger. Such inquiries and review should have been performed prior to the commencement of the audit.

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF RHODE ISLAND)

SCHEDULE OF FINDINGS AND RESPONSES (CONTINUED)

YEAR ENDED JUNE 30, 2009

**Item 09-4 Equity Reconciliation and Account Analyses (Continued)**

*Recommendation:*

We recommend that Authority personnel gain a better understanding of the accounting software and reconcile the Authority's net assets annually before significant other transactions are posted to the general ledger. Furthermore, we recommend that all accruals and reserves from prior years be investigated to determine whether such amounts should remain outstanding or removed from the general ledger.

*Management's Response:*

Both of the items sited are unusual occurrences and it is unlikely they will need to be addressed in the future. With our reorganization, it is managements intention to provide valid accruals and reserves.



Submitted to:  
**Rhode Island  
Turnpike and Bridge Authority**



# Newport Pell Bridge Traffic and Revenue Study

February 1, 2010



Submitted by:

Jacobs Engineering Group Inc.  
5 Penn Plaza, 18th Floor  
New York, NY 10001

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## EXECUTIVE SUMMARY

Jacobs Engineering conducted a traffic and toll revenue study for the Claiborne Pell Newport Bridge (“Newport Pell Bridge” or “Pell Bridge”) upon the request of the Rhode Island Turnpike and Bridge Authority (RITBA). This study is being conducted in support of the upcoming issuance of the Series 2010 bonds to be issued by the Authority. Jacobs analyzed traffic and toll revenue data for the Newport Pell Bridge to determine historical trends, and conducted surveys to gather information on user characteristics and travel time.

As indicated in this report, the current local, national and global economic conditions are unparalleled in recent history. Jacobs has also conducted extensive research in relevant historical and forecasted socioeconomic parameters in order to make a viable estimate of future traffic and toll revenues.

This information was used to develop a traffic and revenue model to estimate annual traffic and toll revenue for Fiscal Year 2010 (i.e., July 2009 – June 2010) through Fiscal Year 2039. Forecasts were made for two different toll scenarios: one with no programmed increases after the recent September 8, 2009 increase (the Base Case), which caused tolls to at least double for about 43 percent of vehicles crossing the bridge, and one that includes increases every three years after, as shown in Table 1. As indicated, the next toll increase would be in September 2012 (Fiscal Year 2013). Annual transactions and toll revenues for both scenarios are summarized in Table 2. The forecasts account for diversion or loss of traffic due to increased tolls, growing E-ZPass market share, increased participation in discounted plans, and the discontinuation of the Commuter Rebate Plan and commencement of two new board-approved commuter plans on February 15, 2010.

**Table 1: Proposed Toll Schedule with Future Toll Increases**

	2009	2010	2013	2016	2019	2022	2025	2028	2031	2034	2037
Two-Axle Vehicles at \$2.00 (cash)	\$ 2.00	\$ 4.00	\$ 4.50	\$ 5.00	\$ 5.50	\$ 6.00	\$ 6.50	\$ 7.00	\$ 7.50	\$ 8.00	\$ 8.50
Two-Axle Vehicles at \$2.00 (E-Z)	\$ 2.00	\$ 4.00	\$ 4.50	\$ 5.00	\$ 5.50	\$ 6.00	\$ 6.50	\$ 7.00	\$ 7.50	\$ 8.00	\$ 8.50
Two-Axle AWAY Vehicles at \$1.75 (E-Z)	\$ 1.75	\$ 4.00	\$ 4.50	\$ 5.00	\$ 5.50	\$ 6.00	\$ 6.50	\$ 7.00	\$ 7.50	\$ 8.00	\$ 8.50
Two-Axle HOME Vehicles at \$1.75 (E-Z)	\$ 1.75	\$ 4.00	\$ 4.50	\$ 5.00	\$ 5.50	\$ 6.00	\$ 6.50	\$ 7.00	\$ 7.50	\$ 8.00	\$ 8.50
Two-Axle HOME Vehicles at \$0.91 (E-Z)	\$ 0.91	\$ 0.91	\$ 1.00	\$ 1.25	\$ 1.50	\$ 1.50	\$ 1.75	\$ 1.75	\$ 1.75	\$ 2.00	\$ 2.00
Two-Axle HOME Vehicles at \$.83 (E-Z)	\$ 0.83	\$ 0.83	\$ 1.00	\$ 1.25	\$ 1.50	\$ 1.50	\$ 1.75	\$ 1.75	\$ 1.75	\$ 2.00	\$ 2.00
3+ Axle Vehicles (cash) - PER AXLE	\$ 1.00	\$ 2.00	\$ 2.25	\$ 2.50	\$ 2.75	\$ 3.00	\$ 3.25	\$ 3.50	\$ 3.75	\$ 4.00	\$ 4.25
3+ Axle Vehicles (E-Z) - PER AXLE	\$ 1.00	\$ 2.00	\$ 2.25	\$ 2.50	\$ 2.75	\$ 3.00	\$ 3.25	\$ 3.50	\$ 3.75	\$ 4.00	\$ 4.25
NEW High Frequency 30-Day Unlimited*	\$ -	\$ 40	\$ 48	\$ 60	\$ 72	\$ 72	\$ 84	\$ 84	\$ 84	\$ 96	\$ 96
NEW Low Frequency 6 trip/30 Days**	\$ -	\$ 5.46	\$ 6.58	\$ 8.22	\$ 9.87	\$ 9.87	\$ 11.51	\$ 11.51	\$ 11.51	\$ 13.16	\$ 13.16

\* Commuter Rebate Plan discontinued as of February 15, 2010

\*\* New commuter plans begin February 15, 2010

**Table 2: Projected Annual Traffic and Gross Toll Revenues**

Fiscal Year	Base Case*		With Toll Increases**	
	Annual Transactions (000s)	Annual Gross Toll Revenue (Ms)	Annual Transactions (000s)	Annual Gross Toll Revenue (Ms)
2009***	9,941	\$12.7	9,941	\$12.7
2010	9,464	\$16.9	9,464	\$16.9
2011	9,498	\$18.0	9,498	\$18.0
2012	9,660	\$18.1	9,660	\$18.1
2013	9,824	\$18.4	9,696	\$20.3
2014	9,900	\$18.5	9,765	\$21.0
2015	9,976	\$18.7	9,866	\$21.3
2016	10,051	\$18.9	9,822	\$23.8
2017	10,118	\$19.0	9,882	\$24.7
2018	10,185	\$19.2	9,977	\$24.9
2019	10,253	\$19.3	9,952	\$27.5
2020	10,321	\$19.5	10,014	\$28.4
2021	10,388	\$19.6	10,104	\$28.7
2022	10,453	\$19.8	10,161	\$30.1
2023	10,516	\$19.9	10,220	\$30.8
2024	10,577	\$20.1	10,286	\$31.0
2025	10,637	\$20.2	10,246	\$33.7
2026	10,697	\$20.3	10,300	\$34.6
2027	10,756	\$20.5	10,379	\$34.9
2028	10,816	\$20.6	10,432	\$36.4
2029	10,877	\$20.7	10,487	\$37.1
2030	10,937	\$20.9	10,551	\$37.3
2031	10,997	\$21.0	10,590	\$38.8
2032	11,058	\$21.2	10,645	\$39.5
2033	11,118	\$21.3	10,709	\$39.8
2034	11,179	\$21.4	10,682	\$42.6
2035	11,239	\$21.6	10,736	\$43.6
2036	11,300	\$21.7	10,813	\$44.0
2037	11,360	\$21.8	10,867	\$45.5
2038	11,421	\$22.0	10,922	\$46.3
2039	11,481	\$22.1	10,985	\$46.6

\* No toll increases beyond the September 8, 2009 (FY 2010) increase

\*\* Toll increases every 3<sup>rd</sup> year after the FY 2010 toll increase

\*\*\* Actual (unaudited)

Due to the implementation of the new toll schedule on September 8, 2009, which raised tolls for all non-discounted E-ZPass and cash-paying passenger cars from \$1.75 or \$2.00 to \$4.00, and doubled tolls for trucks, FY10 toll revenue is anticipated to grow 34 percent despite a forecasted 4.8 percent decrease in toll transactions.

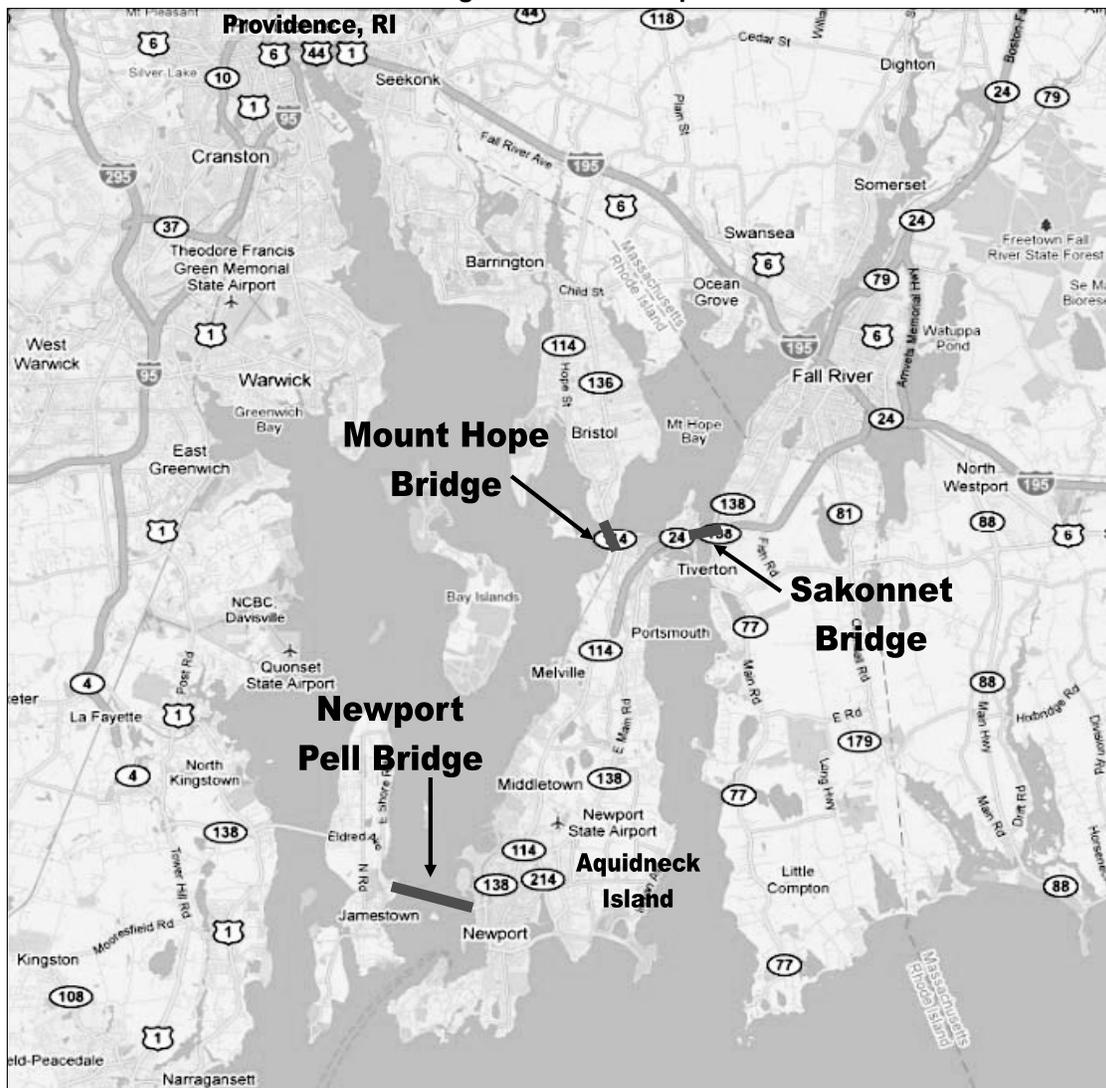
As a result of the current economic recession combined with the recent toll increase, Jacobs is forecasting a decline in tolled traffic for the short-term, with a return to FY 2009 levels not occurring until FY 2015 for the Base Case - the scenario with no further toll increases - and FY 2018 for the toll increase scenario. It is anticipated that the recession and toll increase will continue to be detrimental to transaction levels for FY10, with modest recovery thereafter. The Base Case number of transactions is not expected to reach its peak FY 2005 level until FY 2022, representing seventeen years of no traffic growth. The number of transactions with the toll increase scenario is not expected to reach its peak FY 2005 level until FY 2027, signifying 22 years of no traffic growth.

# 1. Introduction

Jacobs Engineering Group was retained by the Rhode Island Turnpike and Bridge Authority (RITBA) to conduct this investment-grade study of traffic and toll revenue on the Newport Pell Bridge.

The Newport Pell Bridge, the only toll facility in Rhode Island, is one of three bridges providing access to Aquidneck Island; the other two are the toll-free Mount Hope and Sakonnet River Bridges, as shown in Figure 1. The Newport Pell Bridge spans the East Passage of the Narragansett Bay connecting the City of Newport on Aquidneck Island and the Town of Jamestown on Conanicut Island. The four-lane (two per direction) bridge opened to traffic on June 28, 1969.

Figure 1: Location Map



Jacobs developed estimates of future traffic and toll revenue based upon an understanding of historical experience as well as the changing economic environment. Also included in the analysis are the implementation of E-ZPass in December 2008 and the discontinuation of tokens in January 2009, which changed toll rates for some customers; and the September 8, 2009 toll increase, which doubled the tolls for all cash customers, and more than doubled the tolls for E-ZPass customers without a Rhode Island transponder or not meeting residency or frequency requirements.

During the course of the work effort, Jacobs compiled historical traffic and toll revenue data from RITBA by month and/or year detailed to payment and vehicle class. Jacobs also conducted an internet survey to determine some of the characteristics of bridge users, and a travel time survey to determine feasibility of other routes to the island. Traffic and toll revenue information from other New England toll authorities was also studied to gain understanding of tolled traffic trends in the region, and to see how traffic has reacted to toll increases.

Socioeconomic information was compiled to develop trend lines between past economic indicators and traffic levels, and to forecast future traffic growth. The current local, national and global economic conditions are unparalleled in recent history. For this analysis, Jacobs has continued its extensive research into the most relevant historical and forecasted socioeconomic parameters in order to make a viable estimate of future traffic and toll revenues. On December 1, 2008 a recession was officially declared by the US government, with its beginning in December 2007. While various economic forecasters predict that recovery is imminent, there remain questions as to how long it will take to recover, and whether we will return to the trend line of recent years. As traffic is a not simply a function of gross domestic product (GDP) but production levels and other factors, a detailed review was undertaken and described herein.

A traffic and toll revenue model with resulting traffic and toll revenue estimates and projections was developed for the Newport Pell Bridge based on data through August 2009. The work, analyses, and results for the existing toll bridge are of investment-grade quality and suitable for financing. As part of the analyses a static trend line-based traffic and toll revenue model for the Newport Pell Bridge was developed. This model has the ability to adjust projections based on various economic parameters and is segmented by the type of vehicle and payment type.

As a result of the short term economic forecasts as well as the toll increase for commercial vehicles, cash-paying vehicles, and non-Rhode Island E-ZPass users implemented in September 2009, Jacobs is forecasting a decline in tolled traffic on the facility in 2010, with a return to 2009 levels not occurring until Fiscal Year 2015 for the Base Case (i.e., no further toll increases) scenario. Due to the new September 2009 toll rates, overall toll revenue across all projected years is expected to increase. The background and methodology that lead to Jacobs' traffic and toll revenue projections for the Newport Pell Bridge are presented herein, as well as a sensitivity analysis where key model inputs were varied to determine their effect on toll revenues.

## 2. Review of Recent and Historical Data

Historical toll, traffic, and toll revenue data were provided by RITBA for Jacobs to use in developing a thorough understanding of the current state of the Newport Pell Bridge toll facility. Additionally, an internet survey - advertised through roadside signs - was undertaken to sample the travel characteristics of bridge users, and travel time surveys were conducted to determine time differences among alternative routes. These items are detailed in the following sections.

### 2.1 Historical Toll Rates

The Newport Pell Bridge had no toll increases for nearly 40 years after tolling began in 1970. However, in the past year there were two changes to the toll schedule, as shown in Table 3. In mid-December 2008 E-ZPass – the electronic toll collection system used at most toll facilities throughout the Northeastern U.S. – was installed on the bridge, and by February 1, 2009 tokens were no longer accepted. The price of tokens had been \$10 for 11 tokens, or \$0.91 cents each, or \$50 for 60 tokens, which calculates to \$0.83 each. The average price paid per token was \$0.90. Those passenger cars switching from tokens to cash payment saw their toll increase to \$2.00, while those with out-of-state E-ZPass tags experienced a toll increase to \$1.75. Residents who obtained RI E-ZPass tags were now charged \$0.83 – a slight decrease for some – while customers with RITBA commuter plan tags would pay \$0.91 per crossing once they received their frequency rebate after making 31 one-way trips in 30 days. Rhode Island E-ZPass tagholders without resident status or the commuter plan rebate (referred to herein as “standard plan” customers) were charged the same as out-of-state E-ZPass customers, \$1.75.

On September 8, 2009, a toll increase was implemented, raising the tolls to \$4.00 for all cash and non-discounted E-ZPass passenger cars. Trucks saw a similar increase, a doubling from \$1.00 to \$2.00 per axle. Resident and commuter plan tolls remained at \$0.83 and \$0.91, respectively, though in October 2009 the requirement for the frequency rebate was reduced to 26 one-way trips in a 30-day period. RI E-ZPass standard plan passenger cars, as well as out-of-state E-ZPass passenger cars, saw the highest increase, from \$1.75 to \$4.00 to cross the bridge.

**Table 3: Newport Pell Bridge Historical Toll Rates**

Vehicle Type / Payment Type		Old Toll Rate before Dec 16, 2008	Old Toll Rate Dec 16, 2008-Sept 7, 2009	New Toll Rate as of Sept 8, 2009
2-Axle Passenger Cars	Cash	\$2.00	\$2.00	<b>\$4.00</b>
	Token	\$0.90 <sup>1</sup>	N/A <sup>2</sup>	<b>N/A</b>
	AWAY E-ZPass	N/A	\$1.75	<b>\$4.00</b>
	HOME (RI) Standard E-ZPass <sup>3</sup>		\$1.75	<b>\$4.00</b>
	HOME (RI) Commuter Plan E-ZPass		\$0.91 <sup>4</sup>	<b>\$0.91</b>
	HOME (RI) Resident Plan E-ZPass		\$0.83 <sup>5</sup>	<b>\$0.83</b>
Trucks and Other 3+ Axle Vehicles	Price PER AXLE (Any Payment Method)	\$1.00	\$1.00	<b>\$2.00</b>

<sup>1</sup> Average token price; tokens cost \$1.00 for one, \$10 for 11, and \$50 for 60.

<sup>2</sup> Tokens were eliminated as a payment form on February 1, 2009

<sup>3</sup> Customers lacking residency status or not able to meet frequency requirements of the Commuter Plan.

<sup>4</sup> Commuter Plan customers pay \$1.75/trip, but receive a \$0.85/trip rebate when they make 31 trips in a 30-day period

<sup>5</sup> Must produce proof of RI residency

It is important to note that other electronic toll collection tags that are part of the E-ZPass Interagency Group (IAG), such as Massachusetts Turnpike's Fast Lane and Illinois Tollway's I-Pass, are also accepted at the Newport Pell Bridge and are considered equivalent to E-ZPass.

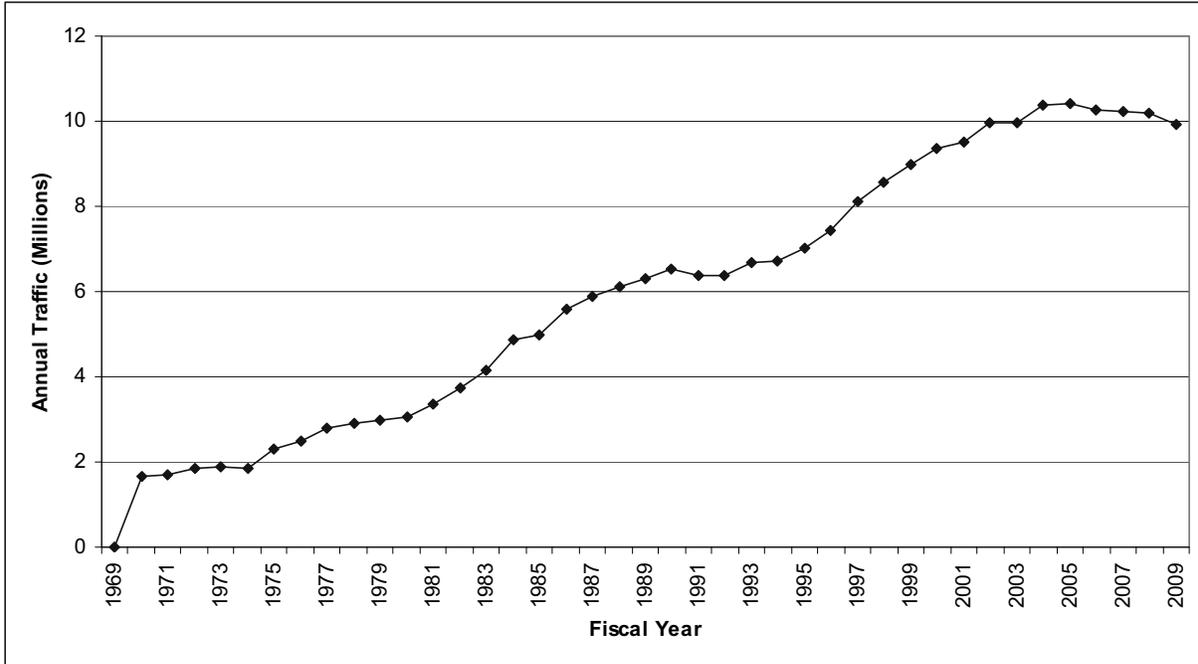
## 2.2 Historical Traffic

This section provides a summary of historical transaction data for the Newport Pell Bridge. Data summaries include annual and monthly transaction data and E-ZPass trends.

### 2.2.1 Annual Toll Transactions

Toll transactions on the Newport Pell Bridge increased steadily for many years since tolling began in 1970, as illustrated in Figure 2. There was some flattening of traffic in 1991 and 1992; this was due to construction on the old Jamestown Bridge and Route 1A on the mainland, both which lead up to the Newport Pell Bridge. Traffic growth resumed as repairs were completed and the new, wider Jamestown Bridge opened in 1993. In recent years there has been a slow decline in traffic, attributable to high gas prices, economic recession, and other factors that have similarly affected the nationwide vehicle-miles traveled (VMT). Also of note is the unprecedented flattening of traffic that predates the current recession, starting in 2005. A similar flattening trend has also been seen in nationwide VMT. The recessionary periods and factors that have been affecting both the Newport Pell Bridge and nationwide travel will be reviewed in the economic section of this report.

Figure 2: Newport Pell Bridge Historical Annual Transactions



RITBA divides traffic in its annual reports into three types: two-axle cash (which includes both cars and two-axle trucks), two-axle E-ZPass (formerly token), and “all other” which includes all vehicles with three or more axles regardless of payment type. The following tables show a breakdown of annual transactions by type from 1997 to 2009, as well as annual percent changes.

As seen in Table 4 and Table 5, traffic grew at a strong rate from 1997 through 2002, averaging 4.2 percent per year. Then in 2002 through 2005, the growth rate declined to 1.2 percent per year. Total traffic peaked at 10.4 million vehicles in 2005, but has declined ever since; in 2005 through 2009, there was an average annual traffic loss of 1.1 percent.

Two-axle vehicles followed a growth/loss pattern similar to the total traffic. Differences in cash versus token growth were likely caused by seasonal and weather conditions. Summer traffic on the Newport Pell Bridge is much higher than winter traffic and had a higher percentage of cash customers, as visitors and other infrequent users were less likely than regular, year-round customers to buy bulk tokens to reduce their toll rate. Therefore, if summer weather was especially dry and warm, as it was in 1999, or especially cloudy and rainy, as it was in 2003<sup>1</sup>, there was a disparity in cash versus token transaction growth.

<sup>1</sup> Based on data compiled from [www.wunderground.com/history](http://www.wunderground.com/history)

Vehicles with three or more axles (i.e., “all others”) comprise about 1.2 to 1.6 percent of traffic; this percentage has generally been growing over time. The number of toll transactions in this category grew steadily from 1997 through 2006, averaging 5.1 percent growth per year. From 2006 through 2009, the truck transactions averaged 4.4 percent loss per year.

E-ZPass was introduced, and tokens discontinued, about halfway through FY 2009. Because many former token users did not acquire E-ZPass, the number of two-axle cash trips increased by nearly 26 percent, while there was nearly 10 percent loss in the token/E-ZPass category. Overall there was a 2.3 percent loss in two-axle vehicles from FY 2008 to FY 2009, partly because of underlying growth factors and partly due to the increased toll for former token customers that did not acquire and/or could not qualify for a resident or commuter plan RI E-ZPass transponder.

**Table 4: Newport Pell Bridge Historical Transactions by Type in Thousands**

Fiscal Year	2-Axle			All Others	Total Traffic
	Cash	Token/EZ	Total		
1997	1,731	6,272	8,002	102	8,105
1998	1,823	6,636	8,459	102	8,561
1999	1,949	6,922	8,871	108	8,979
2000	2,018	7,218	9,236	116	9,352
2001	2,042	7,345	9,387	121	9,508
2002	2,129	7,714	9,843	133	9,976
2003	2,055	7,781	9,837	139	9,976
2004	2,111	8,099	10,210	155	10,364
2005	2,090	8,152	10,242	157	10,399
2006	2,064	8,042	10,106	160	10,266
2007	2,091	7,996	10,087	151	10,238
2008	2,081	7,949	10,030	154	10,184
2009	2,620	7,180	9,801	140	9,941

Note: 2009 numbers are unaudited

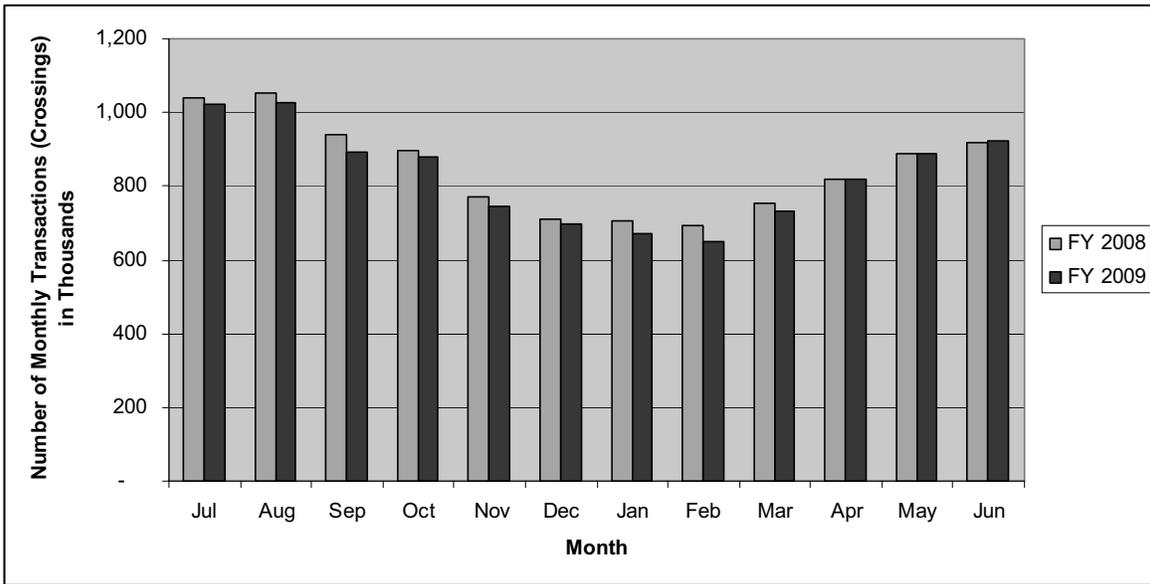
**Table 5: Newport Pell Bridge Historical Transaction Growth Rate over Previous Year**

Fiscal Year	2-Axle			All Others	Total Traffic
	Cash	Token/EZ	Total		
1998	5.3%	5.8%	5.7%	-0.1%	5.6%
1999	6.9%	4.3%	4.9%	5.9%	4.9%
2000	3.5%	4.3%	4.1%	6.9%	4.2%
2001	1.2%	1.7%	1.6%	4.8%	1.7%
2002	4.3%	5.0%	4.9%	9.4%	4.9%
2003	-3.5%	0.9%	-0.1%	4.9%	0.0%
2004	2.7%	4.1%	3.8%	11.1%	3.9%
2005	-1.0%	0.7%	0.3%	1.6%	0.3%
2006	-1.3%	-1.3%	-1.3%	2.1%	-1.3%
2007	1.3%	-0.6%	-0.2%	-5.7%	-0.3%
2008	-0.5%	-0.6%	-0.6%	2.0%	-0.5%
2009	25.9%	-9.7%	-2.3%	-9.2%	-2.4%

### 2.2.2 Monthly Traffic Variations

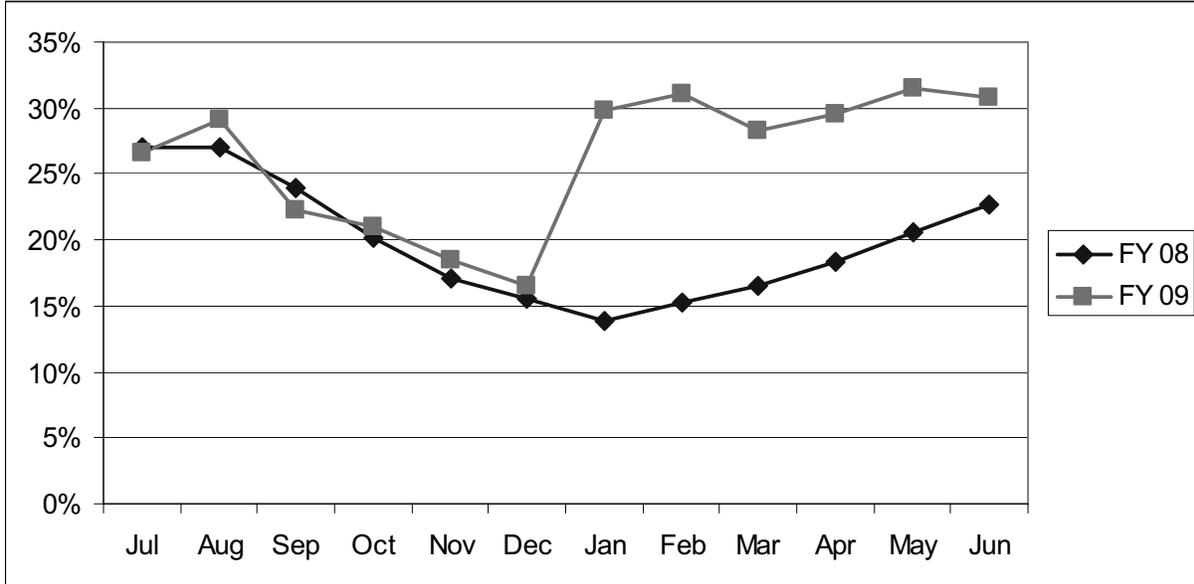
The Newport Pell Bridge exhibits significant disparity between its summer and winter traffic, due to Newport being a major tourist destination in the Northeast, especially in the warmer months. Figure 3 charts the monthly toll transactions over the past two fiscal years. December through February are the low months, with about 650,000 to 700,000 crossings (transactions), while July and August are the high months with a little over 1,000,000 crossings. April, with just over 800,000 crossings, is close to the average monthly traffic for each year.

Figure 3: Newport Pell Bridge Monthly Transaction Variation



There are also monthly variations in how people pay for their trip. Figure 4 shows the percent of transactions that are two-axle vehicles paying with cash. When there were tokens and no E-ZPass, about 14 percent and 28 percent paid by cash in the low and high months, respectively. As seen in the figure, FY 08 and FY 09 followed a similar seasonal pattern, however, once E-ZPass began and tokens were eliminated, the cash payers increased by more than 15 percentage points. It appears that by March or April 2009 E-ZPass was ramped up, and the cash-payers leveled off at a line parallel to FY 2008.

Figure 4: Two-Axle Vehicles Paying with Cash, as a Percent of the Total

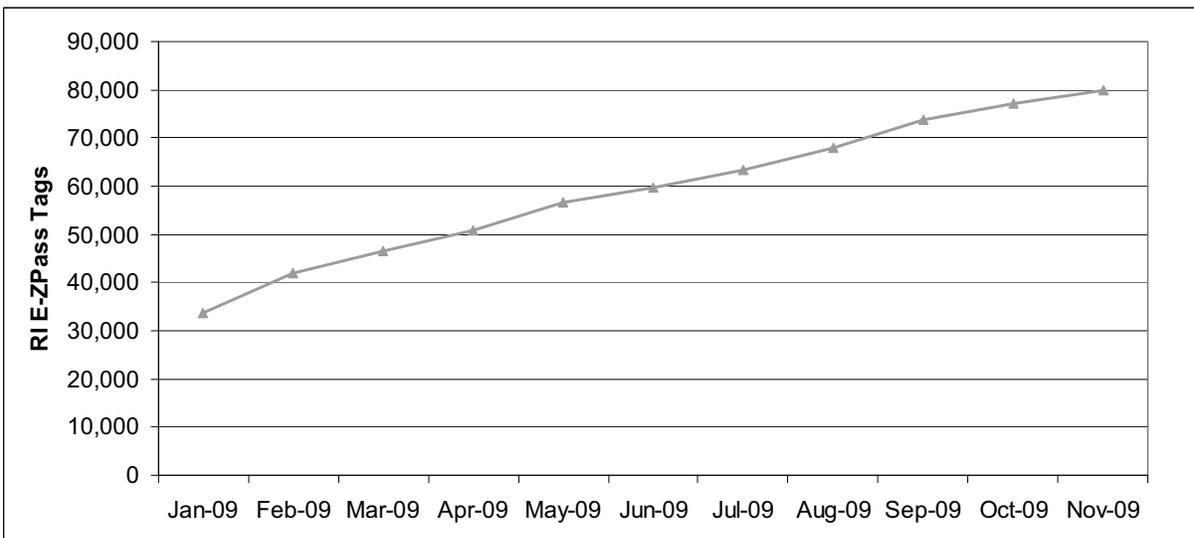


This data was later used to develop Pro Forma estimates for FY 2009 (i.e., estimated traffic assuming E-ZPass were ramped up for the full year), the base from which future year estimates were projected.

### 2.2.3 E-ZPass Trends

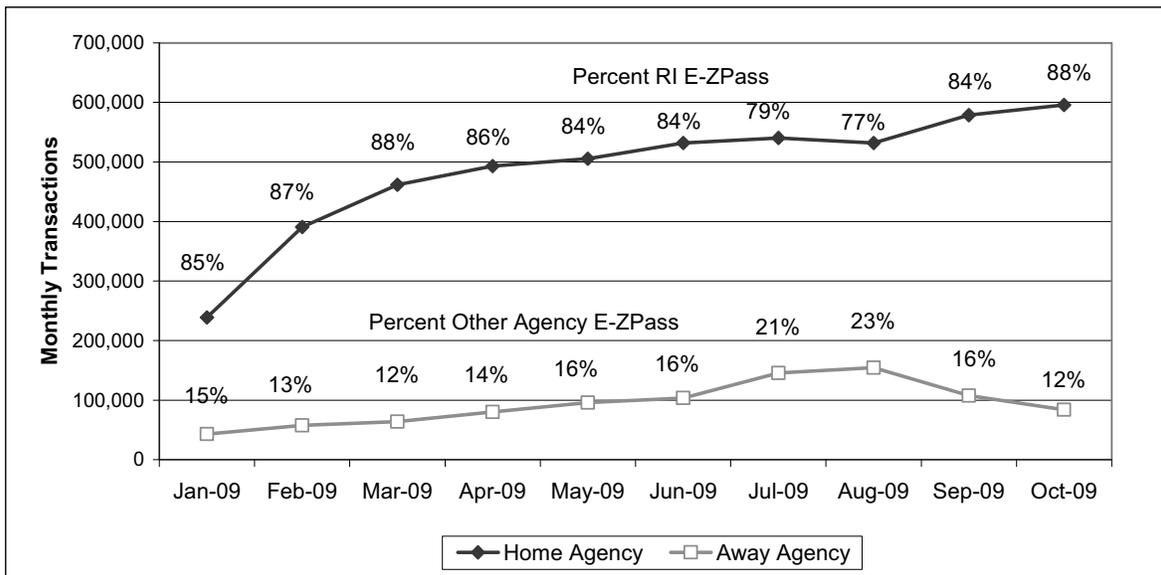
Since the implementation of E-ZPass in December of 2008, the number of Rhode Island E-ZPass transponders in circulation has been growing steadily, as shown in Figure 5. By the end of November 2009, there were nearly 80,000 transponders in use.

Figure 5: RI E-ZPass Transponders in Circulation



The growth in RI E-ZPass transactions does not match the growth in RI transponders, as customers who travel frequently were more likely to acquire the transponders early on. The number of transactions at the Newport Pell Bridge made by Rhode Island E-ZPass (“Home”) versus other (“Away”) transponders is shown in Figure 6. In January 2009, the first month after E-ZPass began at the Newport Pell Bridge, there were nearly 250,000 transactions made by RI transponders versus nearly 50,000 transactions made by Away transponders. RI E-ZPass transactions grew sharply to 400,000 in February. While RI E-ZPass was in a ramp up stage in its first few months, by April it appears to have normalized. During the peak summer months, RI E-ZPass transactions grew to around 550,000 while there were about 150,000 Away transactions. The jump in RI E-ZPass transactions in September to 580,000 and in October to 600,000 signify that the September 8 toll increase may have spurred some qualified individuals to apply for the resident discount or commuter plan to avoid the much higher tolls they would otherwise pay.

**Figure 6: Home (Rhode Island) Versus Away E-ZPass Monthly Toll Transactions on the Newport Pell Bridge**



### 2.3 Historical Toll Revenue and Average Tolls

Table 6 displays the annual Newport Pell Bridge toll revenue from FY 1997 through FY 2009. Because there were no toll increases until FY 2009, toll revenue experienced a trend similar to traffic from FY 1997 through FY 2008, increasing from \$10.1 million in FY 1997 to \$12.1 million in FY 2005, then declining slowly to \$11.9 million in FY 2008. In FY 2009, there was a 6.4 percent increase in toll revenue to \$12.7 million due to the introduction of E-ZPass halfway through the fiscal year with a change in toll rates for former token users.

**Table 6: Newport Pell Bridge Historical Transactions by Type in Thousands**

Fiscal Year	2-Axle			All Others	Total Revenue
	Cash	Token/EZ	Total		
1997	\$ 3,462	\$ 6,272	\$ 9,733	\$ 342	\$ 10,075
1998	\$ 3,645	\$ 6,636	\$ 10,282	\$ 352	\$ 10,634
1999	\$ 3,898	\$ 6,922	\$ 10,820	\$ 370	\$ 11,190
2000	\$ 4,036	\$ 6,704	\$ 10,740	\$ 393	\$ 11,132
2001	\$ 4,084	\$ 6,628	\$ 10,713	\$ 408	\$ 11,120
2002	\$ 4,258	\$ 6,951	\$ 11,210	\$ 449	\$ 11,658
2003	\$ 4,111	\$ 7,003	\$ 11,114	\$ 470	\$ 11,584
2004	\$ 4,221	\$ 7,288	\$ 11,510	\$ 532	\$ 12,042
2005	\$ 4,180	\$ 7,337	\$ 11,517	\$ 546	\$ 12,063
2006	\$ 4,127	\$ 7,238	\$ 11,365	\$ 595	\$ 11,960
2007	\$ 4,182	\$ 7,196	\$ 11,378	\$ 595	\$ 11,973
2008	\$ 4,161	\$ 7,154	\$ 11,314	\$ 578	\$ 11,893
2009	\$ 5,241	\$ 6,851	\$ 12,092	\$ 562	\$ 12,654

Note: 2009 numbers are unaudited

By dividing annual toll revenue by annual transactions we are able to obtain average tolls, as shown in Table 7. While two-axle cash tolls have remained constant at \$2.00 from FY 1997 through FY 2009, average token prices changed from \$1.00 in the late 1990s to \$0.90 in FY 2001, as bulk token discounts were introduced in FY 2000. In FY 2009, with the conversion to E-ZPass, the average toll for 2-axle vehicles paying by token or E-ZPass increased to \$0.95 because all electronic toll passenger cars without a discounted RI E-ZPass saw their tolls increase to \$1.75, which apparently outweighed the reduction to \$0.83 for residents with RI E-ZPass.

**Table 7: Newport Pell Bridge Historical Average Toll**

Fiscal Year	2-Axle			All Others	Overall Average
	Cash	Token/EZ	Total		
1997	\$ 2.00	\$ 1.00	\$ 1.22	\$ 3.35	\$ 1.24
1998	\$ 2.00	\$ 1.00	\$ 1.22	\$ 3.45	\$ 1.24
1999	\$ 2.00	\$ 1.00	\$ 1.22	\$ 3.42	\$ 1.25
2000	\$ 2.00	\$ 0.93	\$ 1.16	\$ 3.39	\$ 1.19
2001	\$ 2.00	\$ 0.90	\$ 1.14	\$ 3.36	\$ 1.17
2002	\$ 2.00	\$ 0.90	\$ 1.14	\$ 3.38	\$ 1.17
2003	\$ 2.00	\$ 0.90	\$ 1.13	\$ 3.38	\$ 1.16
2004	\$ 2.00	\$ 0.90	\$ 1.13	\$ 3.44	\$ 1.16
2005	\$ 2.00	\$ 0.90	\$ 1.12	\$ 3.48	\$ 1.16
2006	\$ 2.00	\$ 0.90	\$ 1.12	\$ 3.71	\$ 1.17
2007	\$ 2.00	\$ 0.90	\$ 1.13	\$ 3.94	\$ 1.17
2008	\$ 2.00	\$ 0.90	\$ 1.13	\$ 3.75	\$ 1.17
2009	\$ 2.00	\$ 0.95	\$ 1.23	\$ 4.02	\$ 1.27

## 2.4 Heavy Vehicles

As shown previously in Table 7, the average toll for three or more axle vehicles has generally increased over the years, meaning that the average axle count has also increased in this category. It would make sense that a higher average axle count would be due to recent truck restrictions on the

Sakonnet River Bridge, one of the alternate routes to the island. While the Newport Pell and Mount Hope Bridges restrict vehicles to less than 40 tons, the Sakonnet River Bridge, under construction in recent years, has reduced its restriction from 38 tons to 22 tons in August of 2007, then again to 18 tons and less than three axles in June 2008.

## 2.5 Characteristics of Bridge Users

An internet-based survey was conducted to obtain information on patron travel characteristics such as frequency of travel, origin/destination, and familiarity with electronic tolling, among others, for the three Aquidneck Island bridges. The survey was conducted through an online survey website (Zoomerang.com), and advertised via strategically placed roadside variable message signs (VMS), approximate locations of which are shown in Figure 7. These signs alternated between the message “Take Travel Survey” and “Visit Survey-U.com” for roughly seven weeks, beginning in early September and ending in mid-October (9/7/09 – 10/18/2009).

The survey posed the following questions to Aquidneck Bridge users:

- Question 1: What bridge did you use on your most recent trip to or from Aquidneck Island?
- Question 2: What was the primary purpose of this trip across the bridge?
- Question 3: How often do you make this same type of trip across the bridge?
- Question 4: Where did this trip begin?
- Question 5: Where did this trip end?
- Question 6: In what state is your vehicle registered?
- Question 7: Do you use E-ZPass or FAST LANE here or anywhere else you travel?
- Question 8: How many people, including the driver, were in your vehicle during this trip?

Slightly over 300 customers took part in the online survey pertaining to Aquidneck Island Bridges. Roughly 140 of these survey respondents answered questions about their travel on the Newport Pell Bridge specifically.

Figure 7: Approximate Variable Message Sign Locations



## 2.5.1 The Relationship of Toll Facility Customers, Trips and Frequency of Travel

In order to fully benefit from a discussion of travel characteristics for Newport Pell Bridge traffic, one must first understand the relationship between *customers* of a toll facility, *trips* they make on that facility, and their frequency of travel. Travel surveys are generally conducted on toll facilities to determine the frequency of travel. These surveys are usually conducted on an average travel day and the customers sampled in the survey are assumed to be representative of the entire driving population of that facility. One of the questions asked in that survey is “how often do you use the toll facility?” (e.g. once per day, once per week, twice per month, once per month, twice per year). The number of survey respondents in each of the frequency categories is then used to calculate the distribution of trips made on the facility. To determine the annual number of customers who would make those trips, one needs to expand the number of trips or people surveyed on that day by considering the number of customers per trip for each frequency of travel category. For example, a driver making a trip once a day represents only *one* customer for that trip in a given year, whereas a driver making the trip once a week represents *seven* customers for that trip in a given year. Table 8 is a *sample* of trip distribution by frequency of travel, and illustrates the relationship between trips and customers.

Table 8: Sample of the Relationship of Trips vs. Customers					
Frequency of Travel	Average Daily Trips	Percent of Trips	Customers for One Trip	Annual Customers	Percent of Customers
1 trip per Day	1,000	33%	1	1,000	2%
1 trip per Week	800	27%	7	5,600	9%
2 trips per Month	600	20%	15	9,000	14%
1 trip per Month	400	13%	30	12,000	19%
2 trips per Year	200	7%	182	36,400	57%
<b>Total</b>	<b>3,000</b>	<b>100%</b>		<b>64,000</b>	<b>100%</b>

As seen in the sample shown in Table 8, of the 3,000 drivers on a given day, 1,000 of them reported making the trip daily. This daily frequency of travel represents 33 percent of all trips made on that facility but only two percent of the total annual customers, as the 1,000 trips are made every day by the same 1,000 customers. Conversely, 200 drivers responded that they made the trip twice per year; they represent seven percent of the total trips made on that facility. However, 182 annual customers are needed to make this trip since it is only made twice per year (365 days per year / 2 trips per year = 182 customers) and thus 36,400 annual customers or 57 percent of all annual customers make up this frequency of travel category. It is clear that while frequent customers of a toll facility make the majority of the *trips* on that facility, they are only a small part of the total *customers* of that facility.

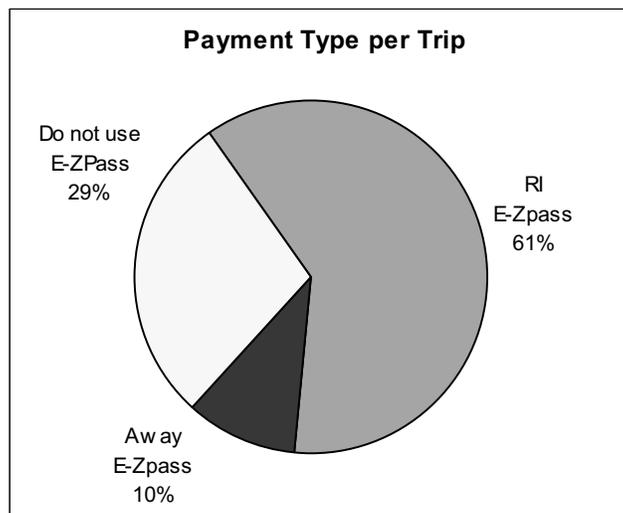
On the other hand, while less frequent customers account for less number of trips, they make up the majority of the total customers of the facility. This relationship between customers, trips and frequency of travel is representative of most toll facilities, including Rhode Island's bridges.

## 2.5.2 Survey Findings

The raw survey results themselves should not be interpreted at face value. Due to the nature of this type of customer survey, the results must first be adjusted for any known shortfalls in survey market penetration, as well as converted into profiles of the actual trips on a facility.

Since E-ZPass statistics for the Newport Pell Bridge were known, the raw survey data was first calibrated to E-ZPass market shares for the fiscal year 2009, shown in Figure 8. About 61 percent of Newport Pell trips have E-ZPass accounts with the state of Rhode Island. An additional ten percent have E-ZPass compatible accounts with other states, and 29 percent of trips do not use E-ZPass. Of particular note, only one survey respondent claimed to have never heard of E-ZPass, all others indicated that they had heard of E-ZPass.

Figure 8: E-ZPass Use



In conjunction with the calibration step, the survey responses (people) were converted to represent trips on the Newport Pell Bridge, based on the relationships explained in the previous section. The expansion of raw data by customer is shown in Table 9, based on an estimated Average Annual Daily Traffic (AADT) volume of 27,250 vehicles.

Noting that the survey advertisements were most visible to frequent customers of the facility and those located within the local metropolitan area, an adjustment was necessary to account for those occasional customers that were less likely to respond to the survey. Based on empirical data from other similar toll facilities, the distribution of trips was adjusted to what in our opinion would be more representative of the actual traffic on the Newport Pell Bridge, also shown in Table 9. The

Newport Pell Bridge exhibits characteristics of both a commuter facility, as well as a vacation facility. In other words, the trip profile seen on the bridge is composed of many frequent travelers (commuters) and a large number of occasional travelers (vacationers) but relatively few of the trip categories in between. More than two-thirds of all trips are made by customers that travel two or more times per week, and nearly twenty percent of trips are made by customers that travel less than once per month.

<b>Frequency of Travel</b>	<b>Raw Percentage of Trips</b>	<b>Adjusted Percentage of Trips</b>
4 or more times per week	86%	60%
2 - 3 times per week	10%	10%
1 time per week	2%	6%
1 - 3 times per month	2%	6%
Less than 1 time per month, but more than 2 times per year	<0.5%	8%
2 times or less per year	<0.5%	10%
<b>Total</b>	<b>100%</b>	<b>100%</b>

The total number of customers that utilize a facility far exceeds the AADT of traffic on that facility. As discussed previously, for each trip that is repeated daily there is one customer, similarly for each trip that occurs once per week there are seven customers. When all trips on a facility are converted to customers the total number is often very large. Table 10 shows the results of the analysis to estimate the total distribution of customers that use the Newport Pell Bridge annually, and these distributions are illustrated in Figure 9 and Figure 10. In total over 800,000 distinct customers are estimated to use the crossing annually, with an overwhelming majority of them traveling infrequently. Of particular note is that although roughly three-quarters of all of the trips on the Newport Pell Bridge are made by customers traveling at least once per week, these customers represent only about five percent of all distinct users of the bridge.

Table 10: Distribution of Trips and Customers on the Newport Pell Bridge					
Frequency of Travel	Annual Trips	Percent of Trips	Trips per person Annually	Annual Customers	Percent of Customers
4 or more times per week	5,968,000	60%	300	20,000	2%
2 - 3 times per week	995,000	10%	130	8,000	1%
1 time per week	597,000	6%	52	11,000	1%
1 - 3 times per month	597,000	6%	24	25,000	3%
Less than 1 time per month, but more than 2 times per year	796,000	8%	6	133,000	15%
2 times or less per year	995,000	10%	1.5	663,000	77%
<b>Total</b>	<b>9,948,000</b>	<b>100%</b>		<b>860,000</b>	<b>100%</b>

Figure 9: Travel Frequency of Trips

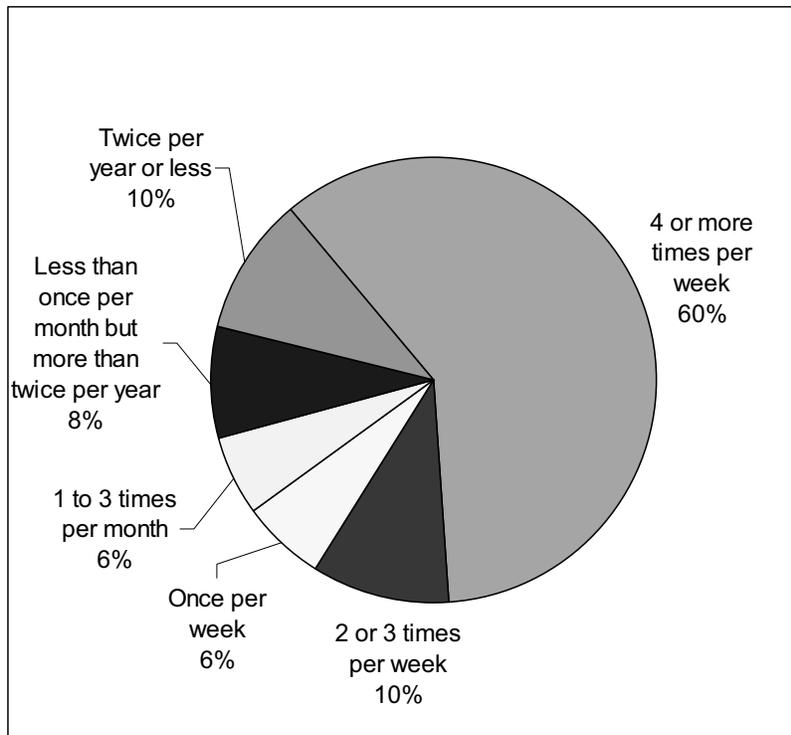
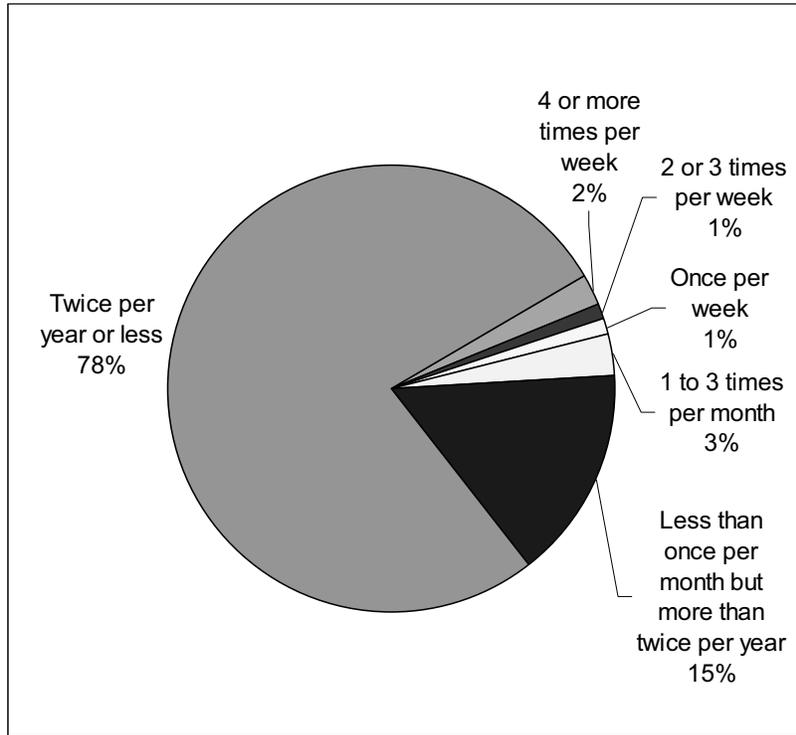
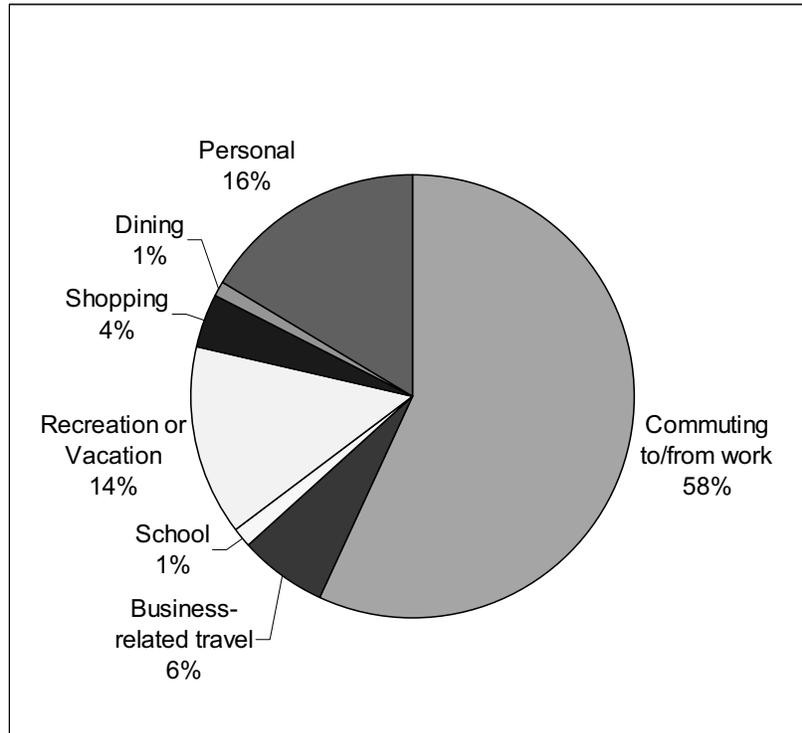


Figure 10: Travel Frequency of People



The purpose of more than half of the trips across the Newport Pell Bridge is commuting to or from work. Another 7 percent of trips are for business-related or school travel, bringing the total of work and school-related trips to almost two-thirds of all trips. Further breakdown of trip purposes is provided in Figure 11.

Figure 11: Trip Purpose



The majority of all trip origins, destinations, and vehicle registrations were found to be in Rhode Island, as shown in Figure 12 through Figure 14. Roughly 25 percent of trips originate in the State of Connecticut, while only about one percent of trips appear to be destined for Connecticut. This is likely due to the survey signs being displayed only for those crossing the bridge into Newport, and not in the opposite direction, since roughly 25 percent of vehicles were also reported as registered in Connecticut (similar to the Connecticut share of origins). About ten percent of trips appear to originate or terminate in Massachusetts, which is relatively on par with the vehicle registration data. More than ten percent of trips are made by vehicles registered in states other than Rhode Island, Connecticut, and Massachusetts.

Figure 12: Trip Origin

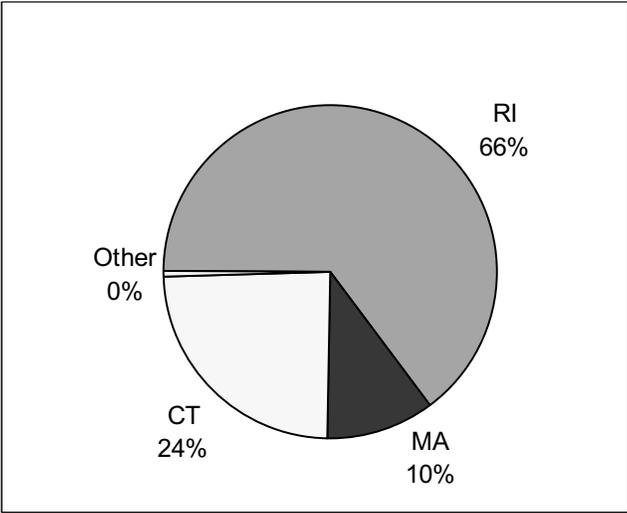


Figure 13: Trip Destination

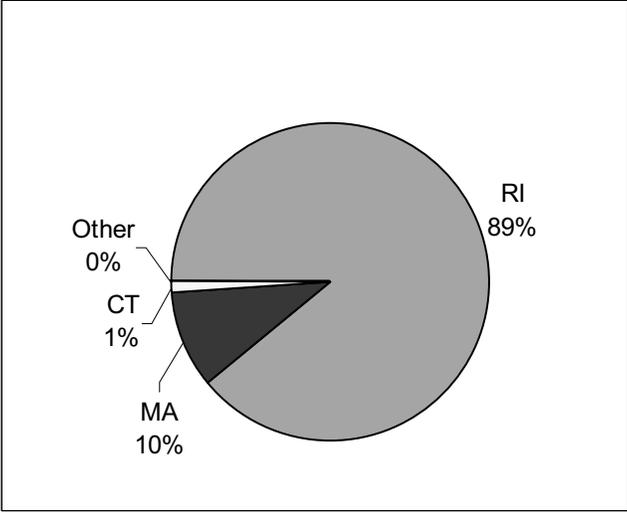
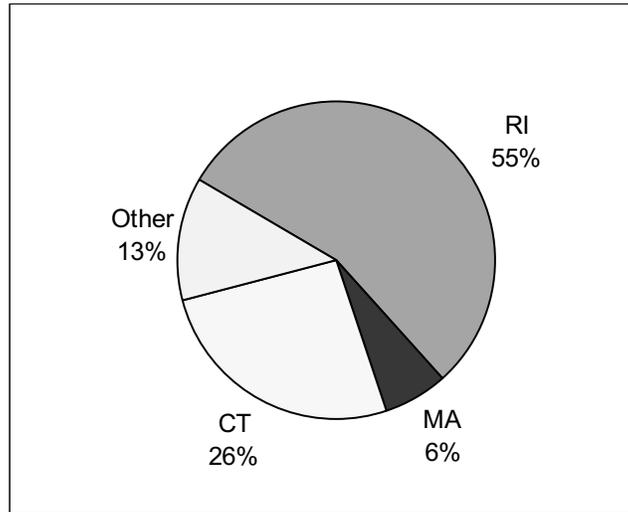
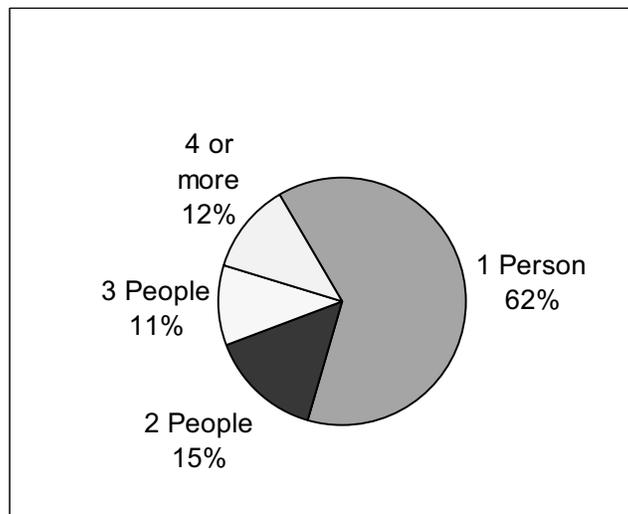


Figure 14: Vehicle Registration



Nearly two-thirds of all trips across the Newport Pell Bridge are made by single occupant vehicles, as shown in Figure 15. Roughly 15 percent of trips have two occupants, while an unusually high 23 percent have three or more persons per vehicle. This high percentage of three and four persons per vehicle is most likely due to Newport, RI being a family vacation destination.

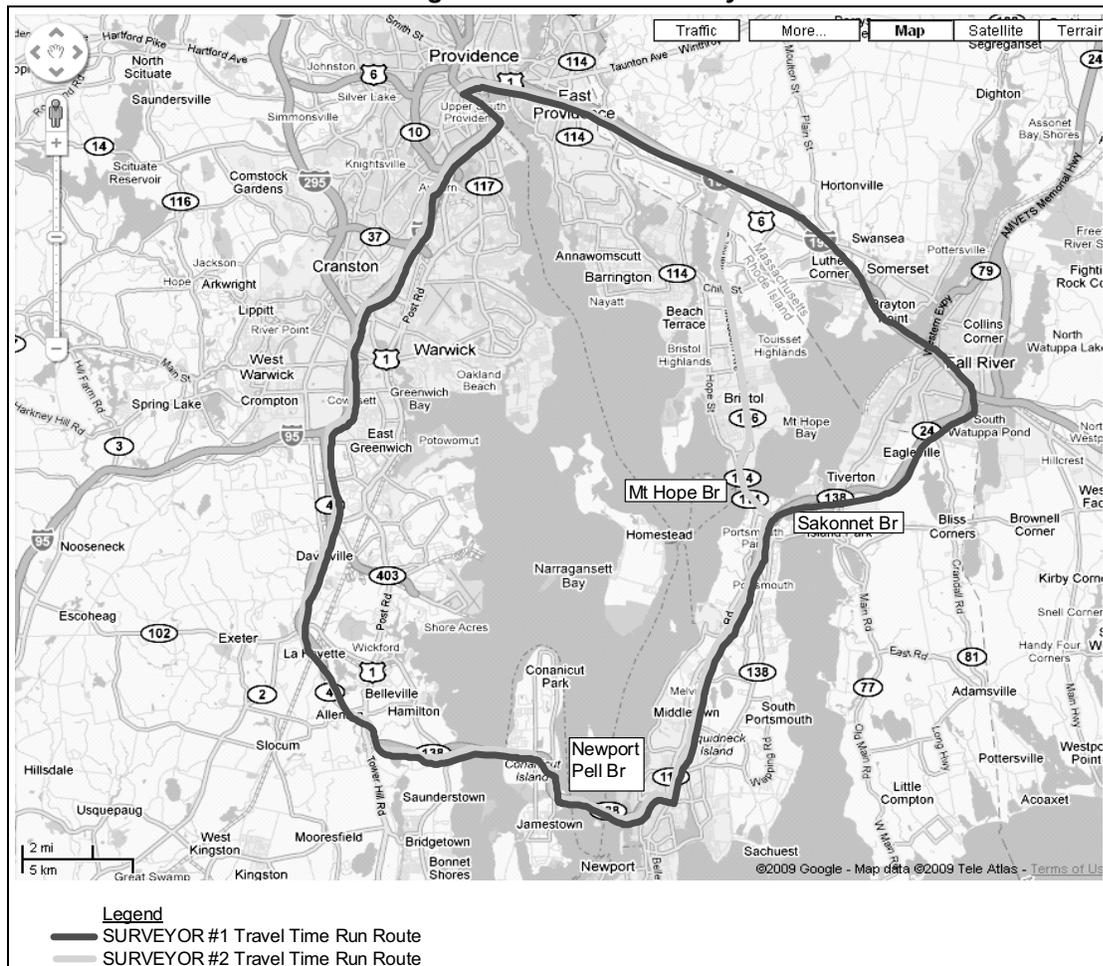
Figure 15: Vehicle Occupancy



## 2.6 Travel Time

Travel time surveys were conducted to gather information about the speeds on competing routes during different times of day. This information is helpful in determining potential traffic re-routing in the case of a toll increase at the Newport Pell Bridge or the introduction of tolls at the other bridges, and could also be used to determine the validity of the statewide (RISM) model. Weekday travel time surveys were conducted by two surveyors on both Tuesday, August 25, 2009 and Wednesday, August 26, 2009. Each surveyor had a *Geostats* GPS device on their vehicle which recorded their location and the time every few seconds. From this, we were able to determine their speed and travel time along each part of their route. The surveyors each drove one loop from Providence to Aquidneck Island and back to Providence during the AM peak, midday, and PM peak, covering the routes both clockwise (day 1) and counterclockwise (day 2). Figure 16 shows the general map of the routes they covered.

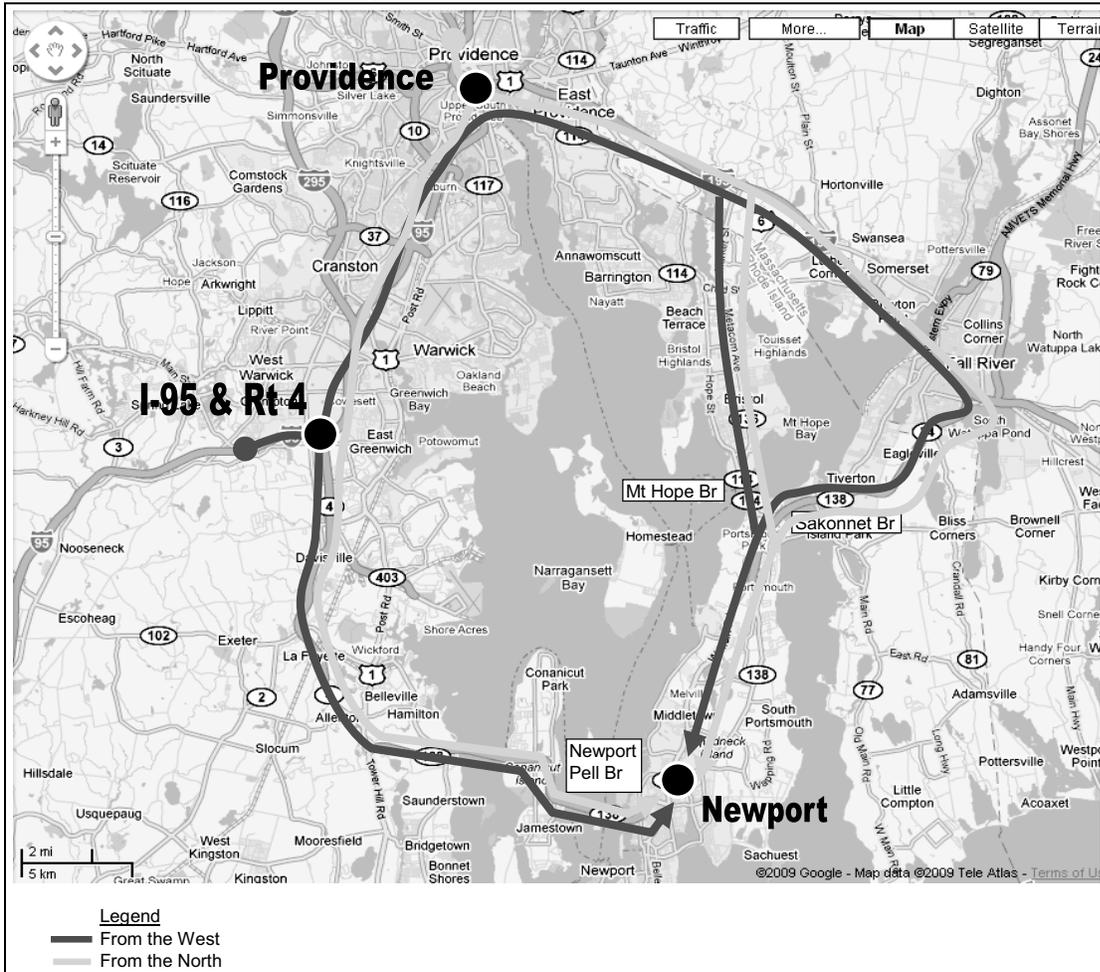
Figure 16: Travel Time Survey Routes



The data collected from each driver was analyzed and broken out such that the travel time required for competing routes could be directly compared. The analysis focused on two primary origins, from

the west (Intersection of I-95 and Route 4), and from the north (Intersection of I-95 and I-195 in Providence). Travel times from these origins to a similar destination in Newport (Intersection of West Main Street at Admiral Kalbfus Avenue) were compared over the three available bridges. These routes are illustrated in Figure 17, and a comparison of average travel times is provided in Table 11.

Figure 17: Common Routes to and from Newport



**Table 11: Summary of Travel Times to and from Newport, RI**

<b>From Newport</b>	<b>To:</b>	<b>I-95 @ Rt 4</b>	<b>Providence</b>
	Via Newport Pell Bridge	25-35 min*	35-45 min*
	Via Mt Hope Bridge	60-65 min	45-55 min
	Via Sakonnet Bridge	55-65 min	40-50 min
<b>To Newport</b>	<b>From:</b>	<b>I-95 @ Rt 4</b>	<b>Providence</b>
	Via Newport Pell Bridge	25-35 min	35-45 min
	Via Mt Hope Bridge	60-70 min	45-55 min
	Via Sakonnet Bridge	50-60 min	40-50 min

\* one wed pm trip took 44 minutes to I-95 and 60 minutes to Providence

*General Notes:*

*Newport measured as roughly W Main street at Admiral Kalbfus Ave*

*Providence measured as roughly I-95 at I-195*

The data collected shows that for travel to and from Newport to/from the north and west, the Newport Pell Bridge is almost always the quickest route based on average travel times. For travel to or from the west, the Newport Pell Bridge is more than 15 minutes faster than paths through Providence and over the Mount Hope or Sakonnet Bridges. On the other hand, for travel to and from the north (via Providence) the Newport Pell Bridge offers a lesser time savings, an average of five to ten minutes. Additionally, the data shows that the Sakonnet Bridge offers a slight time savings over the Mount Hope Bridge for any travel via Providence.

### **3. Economic and Demographic Factors**

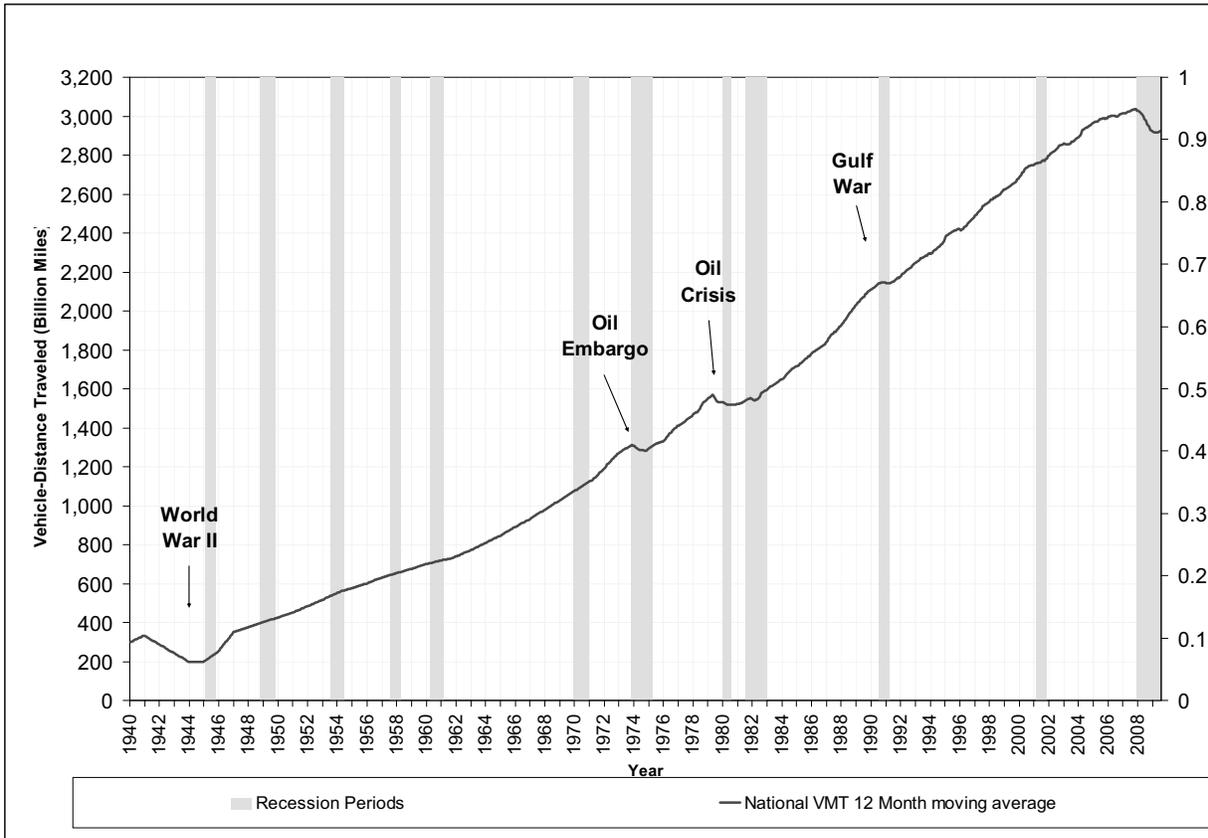
During the course of this study, Jacobs analyzed key socioeconomic factors related to the growth in traffic and toll revenues for the Newport Pell Bridge. Factors that are relevant to the long term background growth of traffic on the facilities were studied, as was the relationship of traffic to specific economic indices for passenger car and truck traffic. Jacobs also researched the possible causes of why people in the U.S. are driving less, and what this means for the future of road travel. In addition, Jacobs conducted extensive background research into the specific dynamics of past economic recessions in order to better understand the current phenomenon and to aid in giving context to the most recent economic downturn when compared with past recessions. The analyses are summarized in the following sections.

#### **3.1 National Trends in Vehicle Miles Traveled**

The United States has experienced a never before seen flattening, then drop, in vehicle-miles traveled (VMT) on its highways over the past several years. Jacobs reviewed and compiled available reports and data to investigate the possible factors contributing to this phenomenon.

Figure 18 depicts the 12-month moving total of national travel mileage from 1940 through August 2009 on all U.S. highways. As seen in this figure, there were temporary reductions in VMT during World War II, oil crises and economic recessions. Despite these temporary “dips”, the VMT continued to grow rapidly over the years. It shows that, in recent years, with the exception of short, flat periods during the 1991 and 2001 recessions (each less than one year), VMT grew at a steady pace through about 2005. VMT then grew at a much slower pace through 2008. The increase in gas prices and the downturn in economic activity that took hold in late 2008 resulted in a significant reduction in total national travel mileage after December 2007 peak. While VMT declined throughout 2008, it has remained flat in 2009 until the summer months, when there was a slight increase over the previous year. This perceived growth is due in part to the large reduction in summer gas prices from 2008 to 2009. Comparing July 2009 to July 2008, there has been an increase in VMT of 1.4% in the Northeastern U.S.

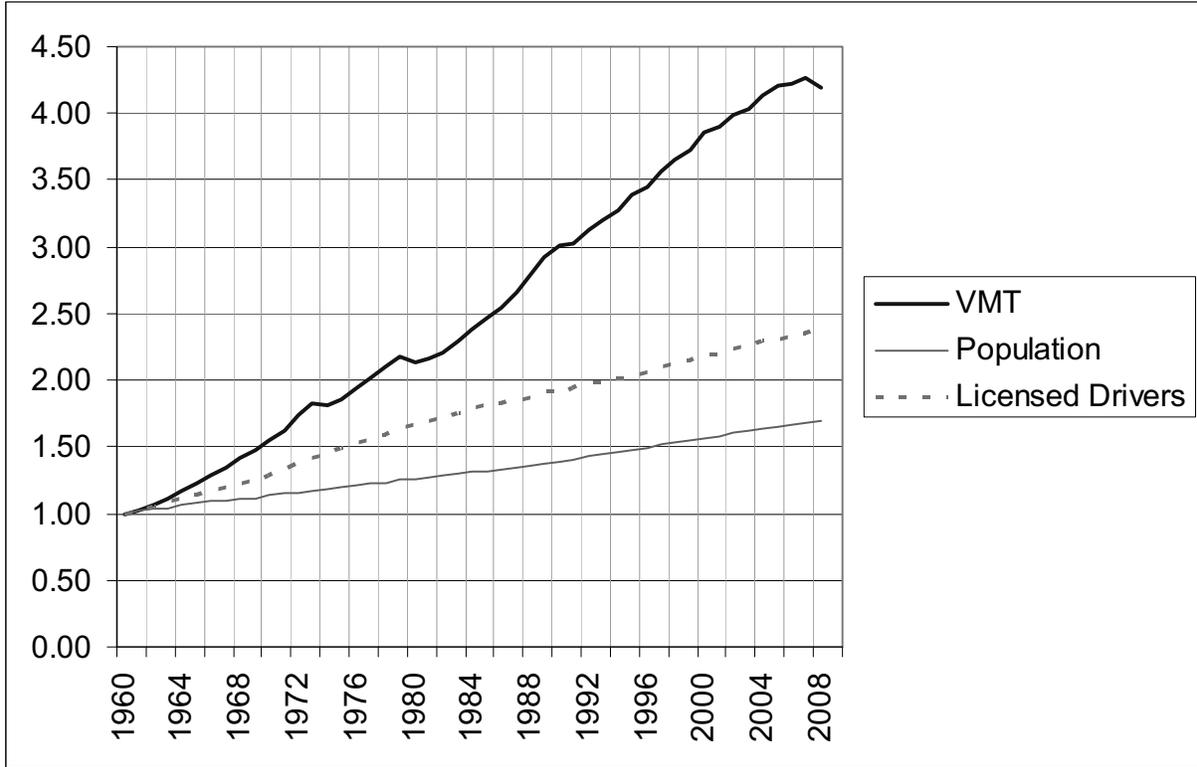
Figure 18: US Annual Vehicle Miles Traveled (VMT)



Source: FHWA

For the sake of comparison, Figure 19 relates the VMT to the U.S. population as well as to the number of licensed drivers. As indicated, the VMT has been growing at a much faster rate than both.

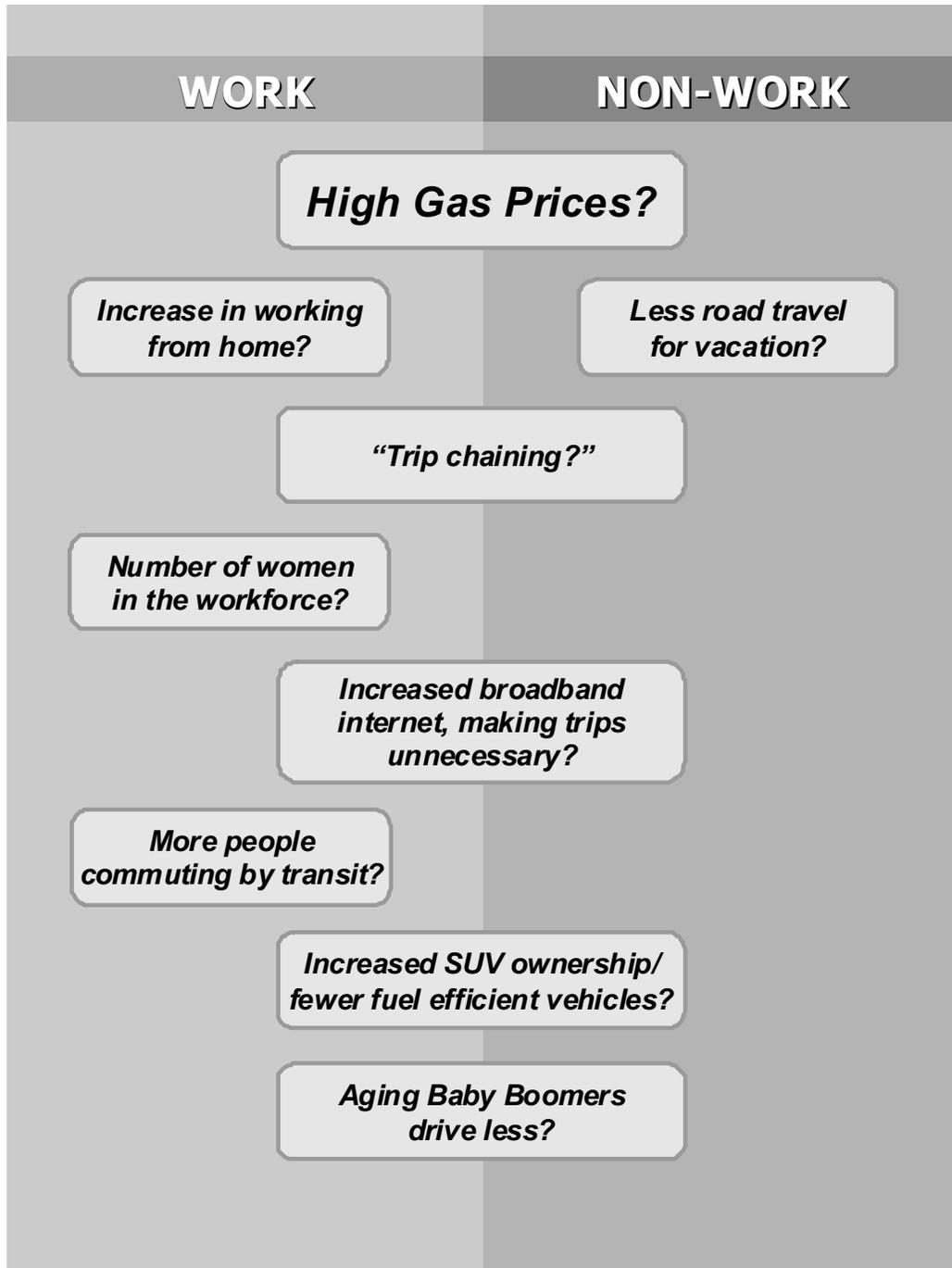
Figure 19: US Population and Licensed Drivers vs. VMT (Indexed to 1960=1)



Sources: FHWA; U.S. Census

Figure 20 lists a number of factors that may have caused the recent VMT and Newport Pell Bridge transaction leveling and decrease in traffic. These have been separated into factors that could affect work and non-work trips, with some affecting both trip types. The jump in gas prices in recent years is often seen as the logical culprit in the reduction of VMT, and gas prices are at least partially responsible for a change in some other factors listed, such as higher transit usage, working from home, and trip chaining (i.e., combining several purposes into one trip), however, there have been other changes in recent years that have affected travel and will continue to affect it in the long term. Historical statistics for some of these factors are compared to VMT throughout this section to provide context to the current experience.

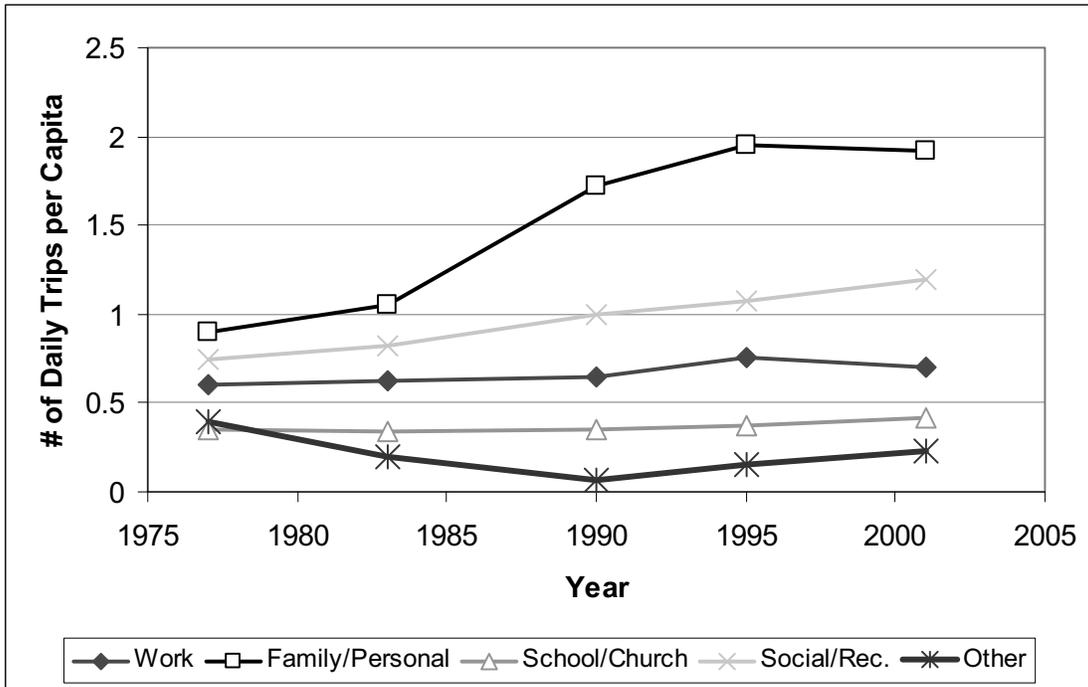
Figure 20: Possible Factors Contributing to Recent VMT Phenomenon



### 3.1.1 Work vs. Non-Work Travel

As shown in the previous figure, changes to certain sociological, economic, and technological factors either affect work travel, non-work travel or both. Work travel in 2001 constituted about 16 percent of trips but as Figure 21 shows, that is attributable to the dramatic growth in other activities rather than diminished work travel.<sup>2</sup> While data for more recent years is not available, evidence suggests that it is these discretionary trips that have been substantially reduced over the past several years, perhaps to pre-1990 levels.

Figure 21: Historical Daily Trips per Capita by Purpose



Source: *Commuting in America III*, Transportation Research Board

The 2001 National Household Travel Survey converted the number of trips by purpose and distance into vehicle miles traveled, as shown in Table 12. Commutation trips comprise only slightly over one-quarter of all VMT. This section will concentrate on factors that affect the primary trip purposes.

<sup>2</sup> Alan Pisarski, "Commuting in America III," *Transportation Research Board*, 2006

**Table 12: Share of VMT by Purpose**

Purpose	Share of VMT
To/from work	27.0%
Other family/personal business	18.7%
Shopping	14.5%
Other social/recreational	13.2%
Visit friends/relatives	9.4%
Work-related business	8.4%
School/church	3.7%
Medical/dental	2.2%
Vacation	1.8%
Other	1.0%

Source: 2001 National Household Travel Survey, U.S. Department of Transportation

### 3.1.2 Fuel Cost Impacts on Travel

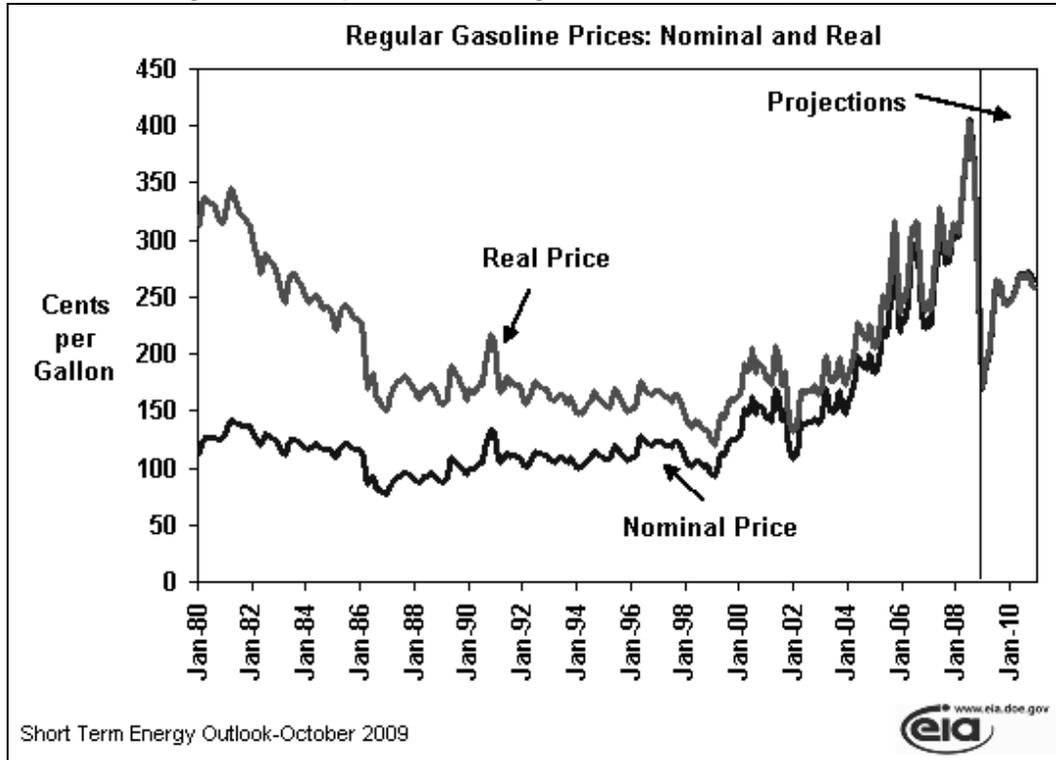
Until the significant reduction in gasoline prices in late 2008, inflation-adjusted gas prices had approached, then exceeded, the 1981 levels that were produced as a result of the 1979 oil shock. The worldwide price for crude oil in July 2008 was \$147/barrel. Crude oil prices dropped significantly to \$42/barrel in January 2009, but have recovered somewhat, gradually increasing to \$69/barrel in June 2009. The summer of 2008 spike had a noticeable effect on travel nationwide, an effect usually seen during recessionary periods.

The latest fall in real and nominal gas prices illustrate the current recessionary state of the national economy. Since peaking for the year at \$71.0/barrel in August 2009, crude oil prices have declined slightly to \$67.4/barrel in October 2009. For the year, the Energy Information Administration (EIA) of the U.S. Department of Energy forecasts that crude oil prices will average \$59.9/barrel for 2009 and \$72.0/barrel in 2010. EIA anticipates that the projected increase in global consumption will result in a 21 percent increase in crude oil prices from 2009 to 2010.

In addition, EIA's most recent forecast, which was published on October 6, 2009 anticipated that gasoline prices in the U.S. would average \$2.36/gallon in 2009 and \$2.65/gallon in 2010. EIA also expects that diesel fuel prices will average \$2.43/gallon in 2009 and \$2.78/gallon in 2010. Figure 22 illustrates the following recent trend: (i) real and nominal gasoline prices increased gradually from 2000 to 2007; (ii) gasoline prices soared to historically high levels in mid-2008; (iii) gasoline prices

then decreased steeply in late 2008 and remained relatively flat in 2009, and (iv) gasoline prices are expected to increase in 2010.

Figure 22: Pump and Real Average National Gas Prices, 1980-2010



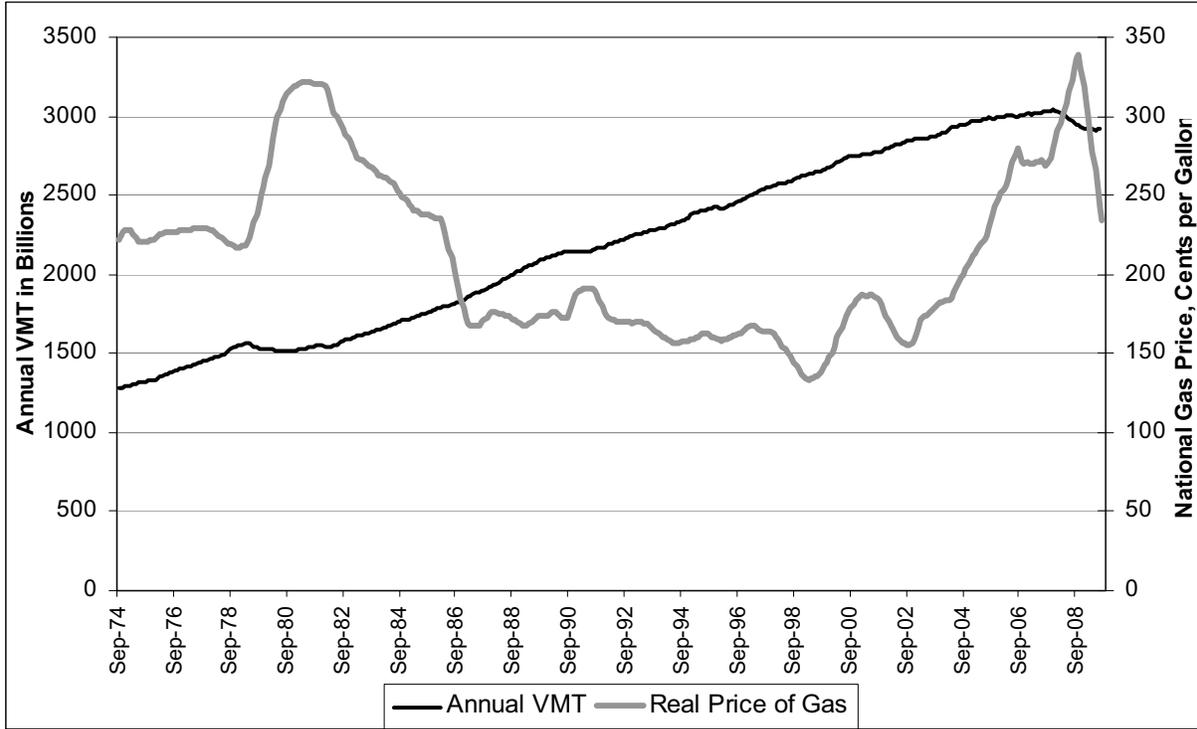
Source: Energy Information Administration (EIA), US Department of Energy

The level of global fuel consumption and future price levels will largely depend upon the timing and pace of the recovery in global economic output. Recent forecasts such as the *Blue Chip Economic Indicators, January 2010* anticipate that recent economic recovery is anticipated to be sustained in 2010. If economic growth rebounds sooner than expected, then the demand for crude oil may outpace production, leading to rising prices. In the event that there is a steep increase in crude oil prices, then there may be a sharp decrease in vehicle miles traveled (VMT), similar to what occurred in 2008. Figure 18 (shown previously on page 28) depicts the 12-month moving average of total national travel mileage from January 1984 to August 2009 on all U.S. highways. This figure shows that traffic trends were flat during the 1981 recession (less than one year) and during the 1991 recession (also less than one year). The increase in gas prices and the downturn in economic activity which took hold in late 2007 have resulted in a significant reduction in total VMT in the United States. In mid 2009, the decline in VMT slowed its decline and began to flatten. As of October 2009, there has been a slight increase in VMT.

Studies have been conducted to determine the effect of gas prices on road travel; however, none were recent enough to see the jump from about \$1.25 per gallon of regular gasoline in 2002 to \$4.25 in

2008. As seen in the previous figure, while the nominal price of gas remained relatively stable throughout the 80s and 90s, the real price (in 2008\$) actually *decreased* over that period. The 2007 real price of gas was similar to that of 1980-1981. Figure 23 compares real gas prices and VMT.

Figure 23: Gas Prices vs. VMT, 1973-2009, 12-Month Moving Average



Sources: FHWA, EIA

The figure shows little overall correlation between historical gas prices and VMT. But it appears when the price reaches a certain threshold, as it did in 1980 and 2008, traffic begins its decline. The unprecedented spike in gas prices over the past six years has made people today more aware of gas prices, the fuel efficiency of their vehicles, and the possibility of changing their driving behavior to compensate. The automotive industry is responding to higher gas prices and consumer demand by manufacturing more fuel-efficient vehicles and offering alternative fuel compounds.

### 3.1.3 Working from Home

The Reason Foundation's November 2005 report entitled, "The Quiet Success: Telecommuting's Impact on Transportation and Beyond," states that:

- Roughly 4.5 million Americans telecommute most work days.
- Roughly 20 million telecommute for some period at least once per month.
- Nearly 45 million telecommute at least once per year.

With cell phones, high-speed internet, and laptop computers it has become increasingly easier for certain employment sectors – especially sales, management and technology - to work from home. Those who work from home save on the time and expense of commuting.

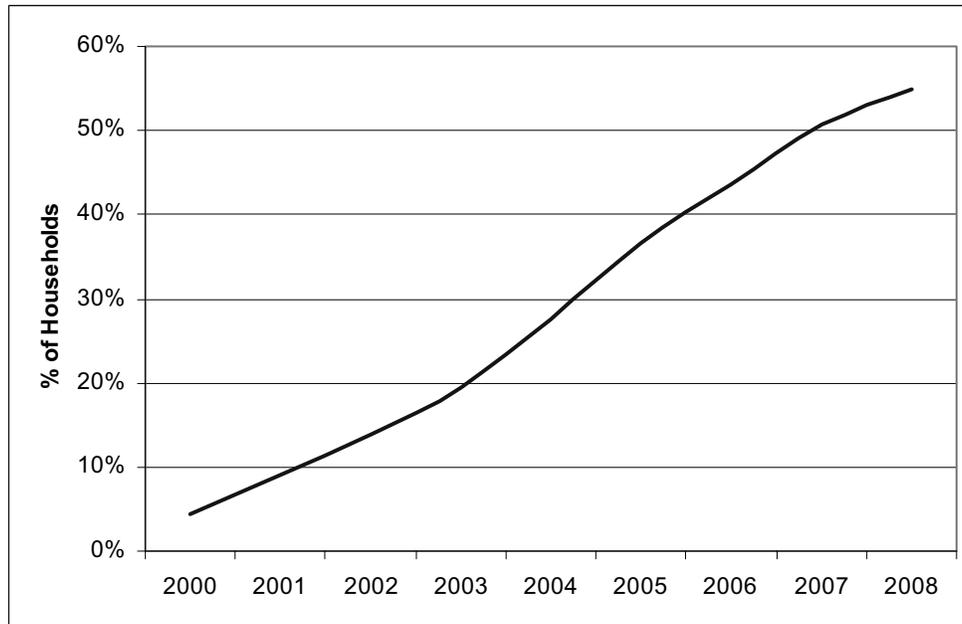
U.S. Census numbers indicate there has been more than a 40 percent growth in telecommuting between 1980 and 2000. In 2000 this constituted 3.3 percent of the work market share. In 2007, 4.1 percent of workers over age 16 claimed to work from home. While the telecommuting share is expected to increase, if all current telecommuters traveled to work it would only make about a one (1) percent difference in overall VMT.

### 3.1.4 Internet

The advent of the internet more than ten years ago brought about a whole new information age whereby many people now use it as their main source of information, and increasingly for communication and as a "store" to browse for and purchase goods. With more and more households and offices connecting to broadband – which receives web pages significantly faster than the older dialup version – a person can complete errands, do social networking, and find entertainment without ever leaving their seat. In theory, it makes some vehicle trips unnecessary, and as seen earlier on page 31, it is likely these discretionary trips that have been reduced in the past few years.

The total number of broadband lines in the United States has grown from almost 6.8 million lines in December 2000 to 121 million in December 2007 – an increase of nearly 1,700 percent - according to the FCC. U.S. households with broadband internet increased from less than five (5) percent in 2000 to more than 55 percent in 2008 as shown in Figure 24. The FCC's proposed National Broadband Plan - and \$7.2 billion of economic stimulus dollars - aims to bring broadband internet access to currently underserved areas of the U.S.

**Figure 24: Growth in Households with Broadband Internet**



Source: National Telecommunications and Information Association

### 3.1.4.1 Behavior of Internet Users

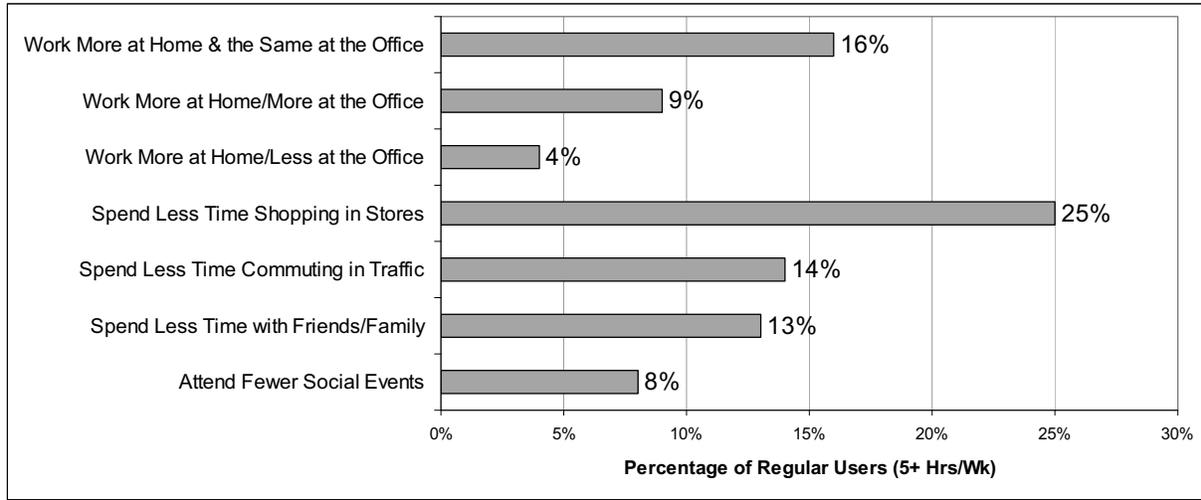
According to Nielsen Online, Americans currently spend an average of nearly 68 hours per month on the internet – more than two hours per day – at home and/or work. There has been a shift in how people spend their time since the days before internet.

A 2000 study by the Stanford Institute for the Quantitative Study of Society (SIQSS) included a survey of more than 4,000 adults nationwide to determine how internet has affected society. The study revealed that the more time people spend on the internet:

- the more they lose contact with their social environment
- the more time they spend working, both at home and at the office
- the less time they spend shopping in stores
- the less time they spend commuting in traffic

Figure 25 shows how survey respondents answered when asked how the internet has changed their behavior. Of these regular internet users, 25 percent reported spending less time shopping in stores and 14 percent reported spending less time commuting in traffic. While making some tasks more convenient, the internet has also taken away time once spent doing other things, and has contributed to us becoming a more isolated society where there is less of a necessity to leave home or the office as much as before.

**Figure 25: Behavioral Changes of Internet Users**



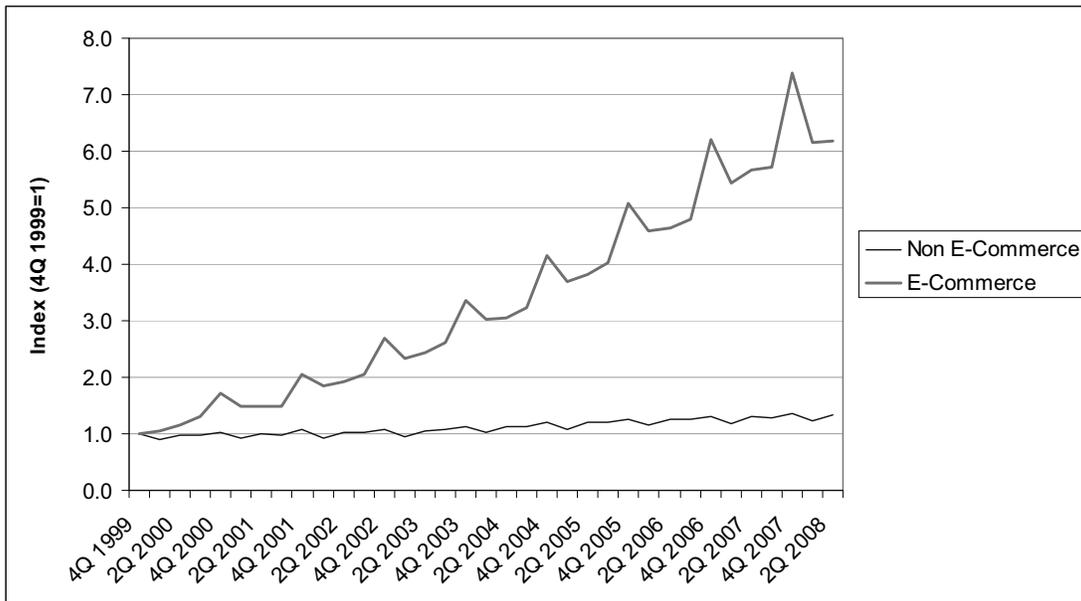
Source: "Internet and Society: A Preliminary Report," Stanford Institute for the Quantitative Study of Society (SIQSS), 2000

Further demonstrating the effects of internet on society, a 2008 study by the Center for the Digital Future at USC states that 15 percent of internet users are currently a member of one or more online communities, typically relating to a person's hobbies or social or professional lives. Of online community members, 16 percent report that being a member of online communities has decreased their participation in offline communities. Fifty-five (55) percent of online community members claim to feel as strongly about their online communities as they feel about their real-world communities - an increase from 43 percent in 2006.

### 3.1.4.2 Online Retail Sales

The share of retail dollars spent on the internet has grown from less than one (1) percent in 1999 to more than 3.5 percent in 2008. Figure 26 shows how e-commerce sales have grown since 1999 relative to non e-commerce sales. E-commerce sales are now nearly seven times those in 1999. This is expected to grow as more and more people become comfortable with buying products and services over the internet.

Figure 26: US Retail Sales, 1999-2008, E-Commerce vs. Non E-Commerce (Indexed to 4Q 1999=1)

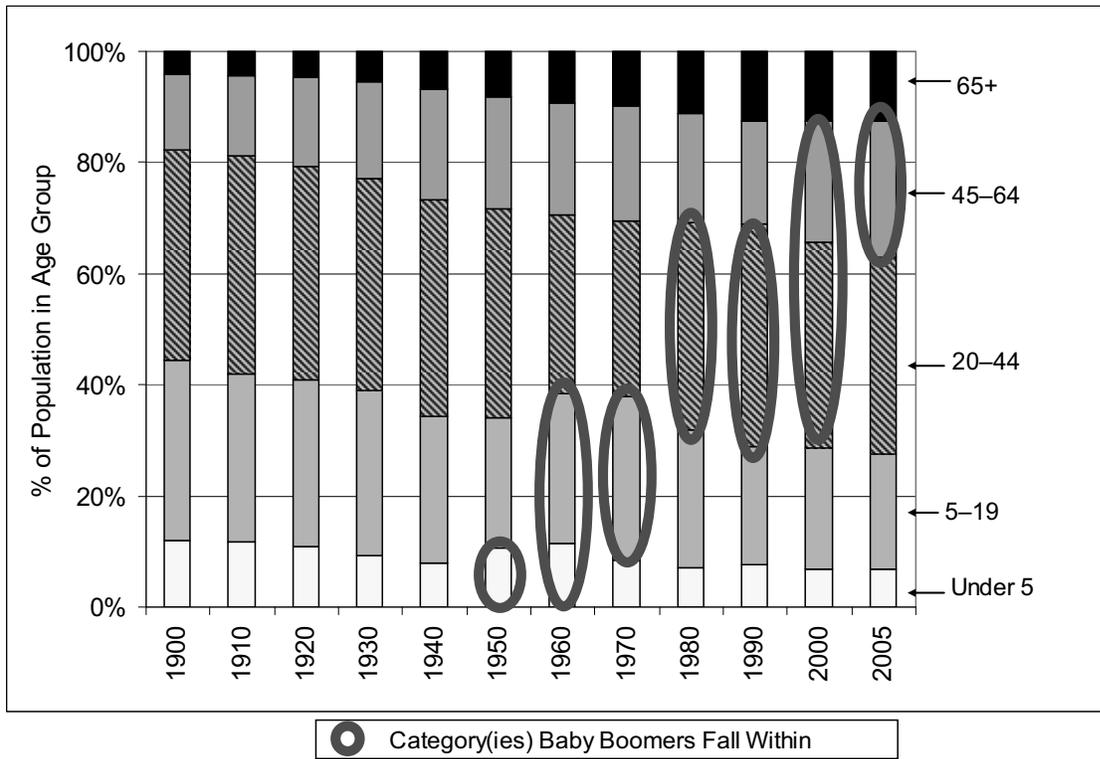


Source: U.S. Census

### 3.1.5 Age of Population

Shifts in the age of the U.S. population are also likely contributing to the recent VMT phenomenon. Figure 27 shows how the percent population in each age group has changed over time. The post-World War II baby boom brought about a spike in birth rates between 1946 and 1964. The age group that produces the most VMT – the 20 to 44 group – has seen a decline in the share of the population it represents since 1990. Meanwhile, the 45 to 64 and 65+ age groups, who drive less and less each year, have grown in proportion.

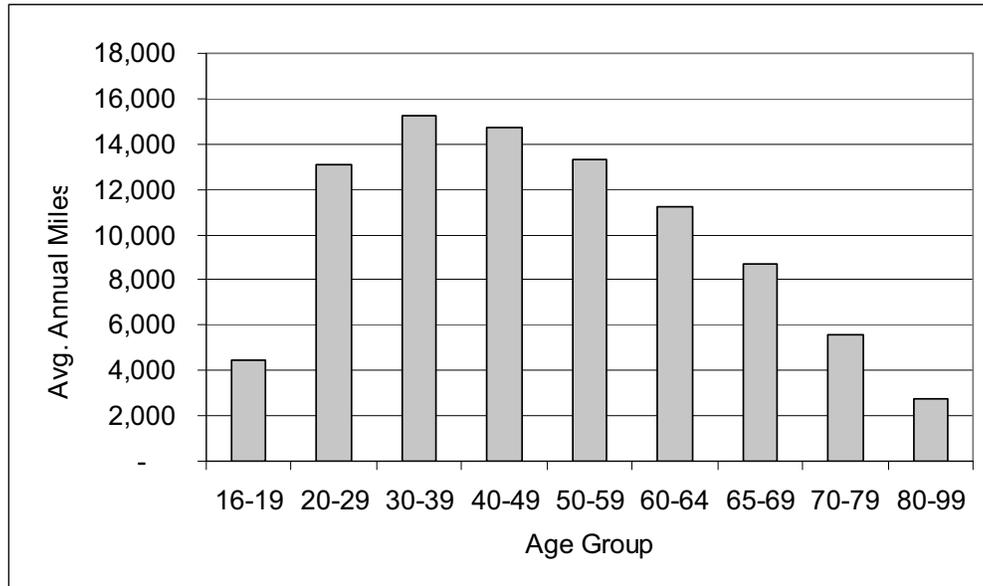
Figure 27: US Population Distribution by Age Group



Source: US Census

Figure 28 represents results from the 2001 National Household Travel Survey. It shows how the aging population of drivers – since older drivers drive fewer miles annually - is contributing to the decline in VMT. The 30-39 age group had the highest annual VMT per person, and the youngest of the baby boomers are now age 45.

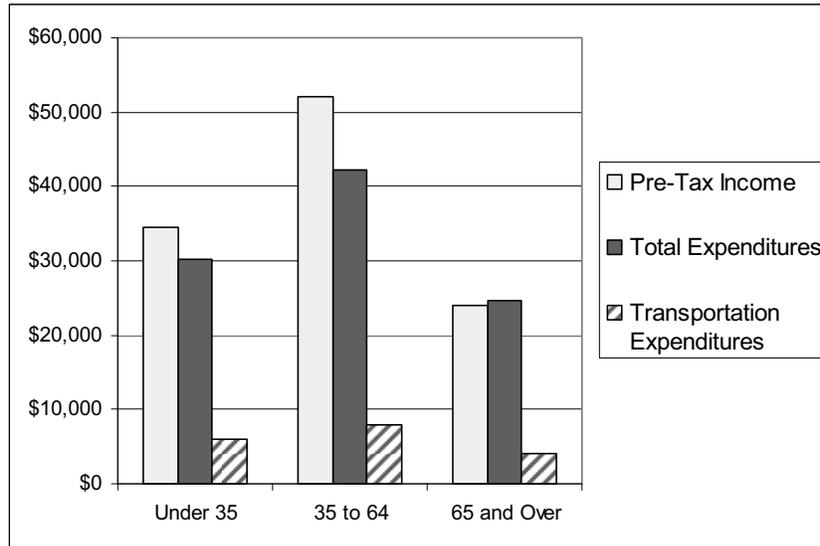
**Figure 28: Average VMT per Person by Age Range**



Source: 2001 National Household Travel Survey, U.S. Department of Transportation

Overall income and spending by age group – including transportation spending – is a major contributor to the decline in driving. The Bureau of Labor and Statistics compiled data on spending patterns by age in the year 2000, shown in Figure 29. Due mainly to retirement, income per household for those age 65 and over was less than half that for the 35-to-64 age group. Expenditures on all items by the 65 and over population was 59 percent of the 35-to-64 age group, and transportation spending was about half. As the oldest of the baby boomer generation have already begun retiring from their jobs, and will reach age 65 in 2011, the trends suggest that consumer spending has and is likely to continue declining in the near future.

Figure 29: Household Income and Expenditures by Age Group, 2000

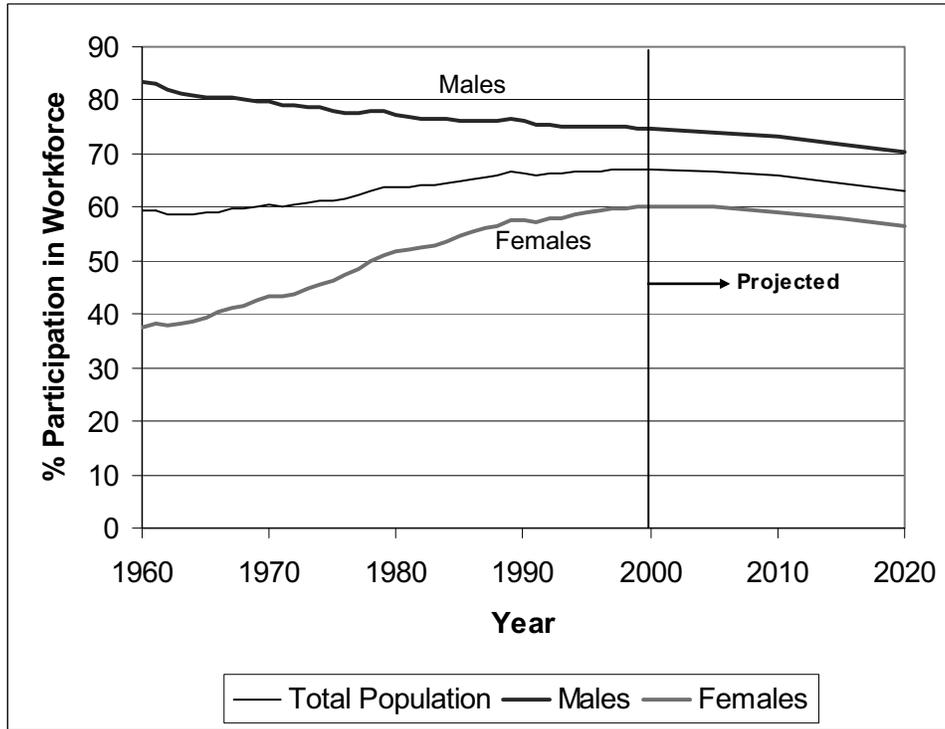


Source: US Department of Labor Bureau of Labor Statistics

### 3.1.6 Women in the Workforce

Female participation in the U.S. workforce increased dramatically from the mid-1960s to the early 1990s, from 38 percent to 58 percent, which likely contributed to the large growth in vehicle miles during that period. The participation in the workforce of each sex now remains flat at 60 percent of women and 75 percent of men, as shown in Figure 30, and is expected to decline as the baby boomer population ages. The flattening percentage of women in the workforce has recently, and will in the near future, cause a slowdown in commuter trip growth.

Figure 30: Participation in the Workforce



Source: US Department of Labor Bureau of Labor Statistics, 2000

### 3.1.7 The Future of Road Travel

The future of U.S. road travel has been adversely affected as discussed above. Since July 2008, gas prices have begun a steady, yet unexpected, decline, an economic recession was declared, and consumer spending reached an all-time low. While these factors have affected the recent VMT, other, more predictable factors will contribute to the future growth in driving. Broadband internet is making it easier to shop, work, access your social network, conduct personal business, and access entertainment from home, likely causing a reduction in discretionary road trips; its market share continues to grow. The percent of women in the workforce, which has been growing over the past 40 years, has flattened. The baby boomer generation has just begun to retire, and evidence shows that older people drive less and spend less on transportation. While some of these factors will not reduce overall travel because population continues to grow, they will inevitably reduce the huge VMT growth seen in previous years.

The implications of these dynamics are clear: while VMT will likely continue to increase over time, one can no longer assume that the growth in road travel will be what it once was. Table 13 presents the trends in national vehicle miles traveled since 1980. The annual percent change in VMT, year over year is shown, as well as the average annual percent over a five, ten and twenty year period. The consistent decreasing trend in growth rates, most easily identified in the 20 year average annual change is the prominent feature of the table. The long term trends readily exhibit decreasing growth rates.

At this national level vehicle miles traveled is exhibiting a new long term growth rate or a “new normal” from which future forecasts should benefit. Based on the data shown in Table 13 the general growth rate of VMT has decreased from 3 percent to approximately 2.3 to 2 percent, taking into account the recent recession.

**Table 13: National Vehicle Miles Traveled and Average Annual Percent Change**

Year	VMT (Billions)	VMT APC	5 Year VMT AAPC	10 Year VMT AAPC	20 Year VMT AAPC
1980	1,521				
1981	1,550	1.9%			
1982	1,592	2.7%			
1983	1,649	3.5%			
1984	1,717	4.1%			
1985	1,775	3.4%	3.1%		
1986	1,838	3.5%	3.5%		
1987	1,924	4.7%	3.9%		
1988	2,026	5.3%	4.2%		
1989	2,107	4.0%	4.2%		
1990	2,148	1.9%	3.9%	3.5%	
1991	2,172	1.1%	3.4%	3.4%	
1992	2,247	3.5%	3.2%	3.5%	
1993	2,297	2.2%	2.5%	3.4%	
1994	2,358	2.7%	2.3%	3.2%	
1995	2,423	2.8%	2.4%	3.2%	
1996	2,482	2.4%	2.7%	3.0%	
1997	2,560	3.1%	2.6%	2.9%	
1998	2,625	2.5%	2.7%	2.6%	
1999	2,679	2.1%	2.6%	2.4%	
2000	2,747	2.5%	2.5%	2.5%	3.0%
2001	2,796	1.8%	2.4%	2.6%	3.0%
2002	2,855	2.1%	2.2%	2.4%	3.0%
2003	2,890	1.2%	1.9%	2.3%	2.8%
2004	2,964	2.6%	2.0%	2.3%	2.8%
2005	2,989	0.8%	1.7%	2.1%	2.6%
2006	3,014	0.8%	1.5%	2.0%	2.5%
2007	3,030	0.5%	1.2%	1.7%	2.3%
2008	2,925	-3.5%	0.2%	1.1%	1.9%

## **3.2 Review of National, State, and County Economic and Demographic Trends**

This section analyzes the economic trends in Rhode Island, New England and the U.S. as well as the demographic trends at the state and county levels which may impact traffic levels on the Newport Pell Bridge. In particular, this chapter includes a review and summary of local economic and demographic factors, such as the change in fuel costs, vehicle-miles traveled (VMT), population, employment, income, vehicle ownership, and commuter patterns in Rhode Island. Historical data for these parameters range from 1990 to 2008, while forecast data have been compiled through 2030.

### **3.2.1 General Economic Conditions in the United States**

The United States has experienced a downturn in general economic conditions that began in late 2007. Table 14 summarizes the historical and consensus forecast of the top economic analysts for year-over-year growth in real Gross Domestic Product (GDP) and the Industrial Production in the U.S. Except for 2001-2, real GDP and industrial production grew steadily each year from 2000 to 2007. In 2008, GDP increased by 1.1 percent, while industrial production decreased by -1.8 percent. For 2009, it is expected that GDP will decrease by -2.5 percent and industrial production will decrease by an additional -10.1 percent. However, economic output is expected to recover in 2010 with a 2.5 percent increase in real GDP. Real GDP is anticipated to increase by 3.1 percent in 2011, 3.3 percent in 2012, and 3.0 percent in 2013, tapering down to 2.6 percent by 2020. Industrial production is also expected to increase by 3.3 percent in 2010, 4.2 percent in 2011, and slowing growth rates into the future with long term growth at approximately 2.6 percent

**Table 14: Historical and Consensus Forecast of Growth in Real Gross Domestic Product and Industrial Production in the U.S., 2000 – 2020**

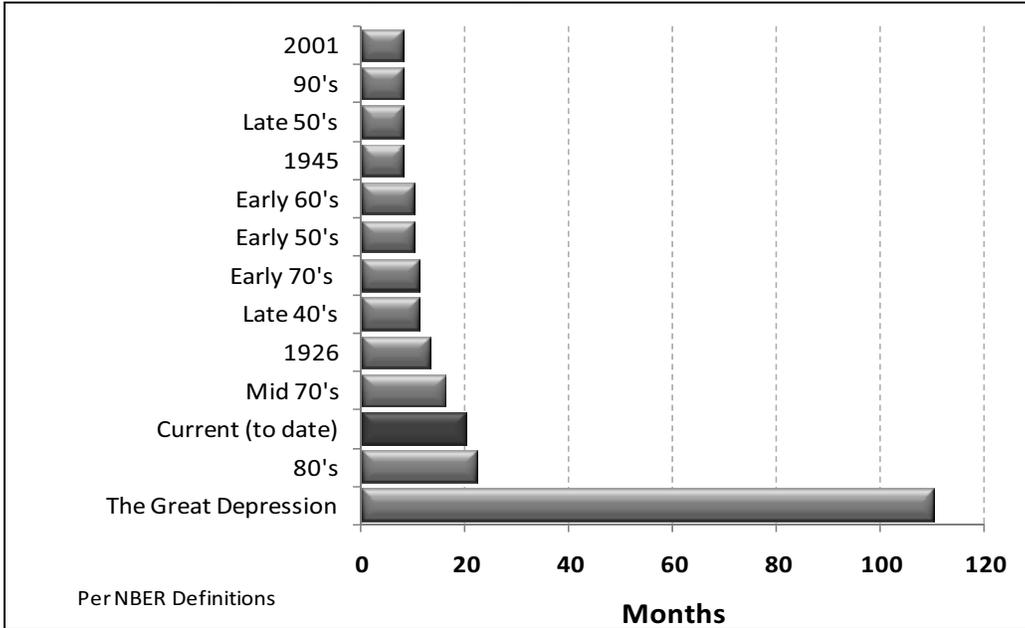
<b>Year</b>	<b>Real GDP Growth in 2000\$<sup>1</sup> (Year/Year)</b>	<b>Industrial Production (Year/Year)<sup>2</sup></b>
2000	3.7%	5.2%
2001	0.8%	0.4%
2002	1.6%	-3.3%
2003	2.5%	1.1%
2004	3.6%	2.5%
2005	2.9%	3.3%
2006	2.8%	2.2%
2007	2.0%	1.7%
2008	1.1%	-1.8%
<b>Forecast<sup>2</sup></b>		
2009	-2.5%	-10.1%
2010	2.5%	3.3%
2011	3.1%	4.2%
2012	3.3%	4.1%
2013	3.0%	3.6%
2014	2.8%	3.2%
2015	2.7%	2.9%
2016-20	2.6%	2.8%

<sup>1</sup> Bureau of Economic Analysis (BEA), US Department of Commerce.

<sup>2</sup> Blue Chip Economic Indicators, Consensus Forecast, October 10, 2009

Through September 2009, the length of the current recession stood at 22 months. As a result, it is now the 3<sup>rd</sup> longest recession in the last 100 years and approached the recession of the early 1980s with respect to duration and severity. On October 29, 2009 the recession was declared statistically over when the 3<sup>rd</sup> quarter of 2009 exhibited 3.5 percent annualized growth. Figure 31 compares the duration of the current recession with previous recessions in the U.S. since 1940 and with the Great Depression of the 1930s.

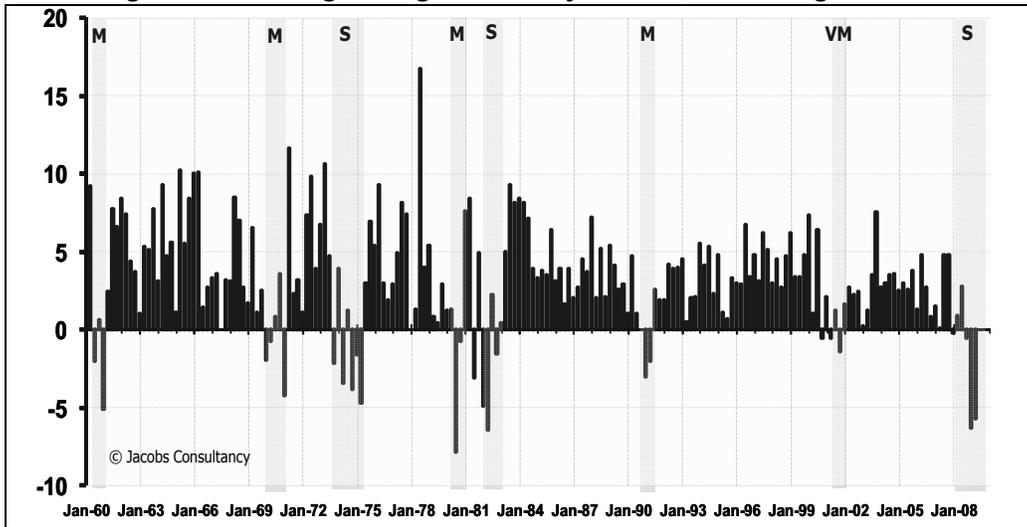
**Figure 31: Comparison of Major U.S. Recession Durations**



Sources: *Recession.org* and *U.S. National Bureau of Economic Research (NBER)*

Figure 32 shows the depth and duration of the current U.S. recession in relation to the previous seven recessions. Recessions are noted by blue-colored bars and the severity of each recession is evaluated using the National Bureau of Economic Research (NBER) definitions; Sharp (“S”), Mild (“M”) or Very Mild (“VM”).

**Figure 32: Percentage Change in Quarterly US. GDP, 1960 through Q1 2009**



Source: *Jacobs Consultancy*

Based on data compiled by the Bureau of Economic Analysis (BEA), both the state and regional economies grew steadily from 2000 to 2007. This growth has occurred despite the recession that took

hold at the start of the decade. As an aggregate, Gross Regional Product (GRP) in New England (Rhode Island, Massachusetts, Connecticut, New Hampshire, Vermont and Maine) increased by average annual rate of 1.9 percent from 1999 to 2008. During this period, total economic output in Rhode Island also increased at an average annual rate of 1.9 percent. In large measure, economic growth in Rhode Island is supported by economic activity in Massachusetts and Connecticut, which increased at an average annual growth rate of 2.0 percent and 1.5 percent, respectively, from 1999 to 2008. Table 15 summarizes the growth in real Gross State Product (GSP) for Rhode Island, Connecticut, Massachusetts, and GRP for the New England region during the most recent ten year period.

<b>Year</b>	<b>Rhode Island</b>	<b>Connecticut</b>	<b>Massachusetts</b>	<b>New England</b>
1999	31,608	153,298	255,189	531,902
2000	33,609	160,436	274,949	565,835
2001	34,176	161,197	276,634	570,313
2002	34,918	158,628	274,997	568,750
2003	36,488	159,456	280,881	579,651
2004	37,830	165,828	286,541	597,196
2005	37,752	169,094	289,869	605,048
2006	38,475	174,310	297,634	620,103
2007	38,456	178,470	306,503	634,166
2008	38,126	177,717	312,476	640,735

Source: Bureau of Economic Analysis (BEA)

The recovery from the recession is technically underway with the results of 3<sup>rd</sup> quarter 2009 GDP estimates, but understanding the type of recovery is critical to understanding the impact on traffic. It is projected that employment will be slow to recover, as efficiencies and inventory depletion will grow the overall economy before employers will risk financial exposure with the hiring of new employees. From the September 2009 issue of *Blue Chip Economic Indicators*, a clearinghouse of over 50 economic forecasting entities, over 81 percent of experts questioned agreed that the recession is over. Approximately the same percentage predicts that the unemployment rate will not fall back beneath 7 percent on a sustained basis until the second half of 2012. It is employment that both allows and necessitates vehicle travel and a jobless recovery does not translate into recovery of traffic levels.

### **3.2.2 Fuel Prices**

In conjunction with national trends, gasoline prices in Rhode Island increased steadily beginning in the fall of 2005 through mid-2008 before dropping significantly during the latter part of last year due to lower demand. Based on data provided by the American Automobile Association (AAA), retail gasoline prices peaked at \$4.05/gallon in June 2008 before falling back to around \$1.60/gallon in

December 2008. Average gasoline prices in Rhode Island were \$2.73/gallon as of January 7, 2010. National average gasoline prices have typically within a few cents of the Rhode Island average.

### 3.2.3 Regional Vehicle Miles Traveled

Similar to national trends, total VMT has increased modestly for each of the five counties in Rhode Island from 2000 to 2007, total VMT in Rhode Island increased at an average annual rate of 0.54 percent. Despite the current decline in economic conditions, recent forecasts anticipate that VMT will continue to increase throughout the state. In particular, the Rhode Island Statewide Planning Office estimates that VMT will increase statewide by an average annual rate of 0.91 percent from 2010 to 2030. Table 16 summarizes the VMT forecast compiled by the Rhode Island Statewide Planning Office.

<b>Year</b>	<b>Bristol</b>	<b>Kent</b>	<b>Newport</b>	<b>Providence</b>	<b>Washington</b>	<b>Total</b>
2000	524	4,035	1,354	12,147	2,627	20,687
2007	546	4,139	1,402	12,637	2,751	21,475
2010	558	4,272	1,424	12,928	2,827	22,009
2015	574	4,490	1,472	13,488	2,998	23,022
2020	595	4,741	1,532	14,133	3,201	24,202
2025	616	4,988	1,596	14,821	3,399	25,420
2030	639	5,146	1,653	15,413	3,554	26,405

Source: Rhode Island Statewide Planning Office

### 3.2.4 Population Trends

Between 1990 and 2008, population in the state of Rhode Island increased slightly from approximately 1.00 million to 1.05 million residents, or approximately 3,100 new inhabitants per annum. From 1990 to 2005, the annual average growth rate for population in Rhode Island was 0.38 percent. However, total population in the state decreased by nearly 12,000 residents from 2005 to 2008. Providence County accounts for nearly 60 percent of Rhode Island’s population with another 16 percent living in Kent County. The remainder of the state’s population resides in Washington County (12 percent), Newport County (8 percent) and Bristol County (5 percent). Despite the recent decrease in population, the most recent forecast prepared by the Rhode State Planning Office projects that the state’s population will increase to 1.141 million by 2030. Table 17 shows historical and projected population by county.

Year	Bristol	Kent	Newport	Providence	Washington	Total
1990	48,859	161,135	87,194	596,270	110,006	1,003,464
2000	50,648	167,090	85,433	621,602	123,546	1,048,319
2005	51,166	168,895	85,998	628,617	127,765	1,062,441
2008	49,838	168,058	80,478	626,150	126,264	1,050,788
2010	51,596	170,396	86,470	634,457	131,280	1,074,199
2015	52,241	172,648	87,174	643,208	136,542	1,091,813
2020	52,961	175,158	87,960	652,970	142,415	1,111,464
2025	53,577	177,306	88,632	661,312	147,433	1,128,260
2030	54,026	178,874	89,125	667,414	151,104	1,140,543

Source: Rhode Island Statewide Planning Office

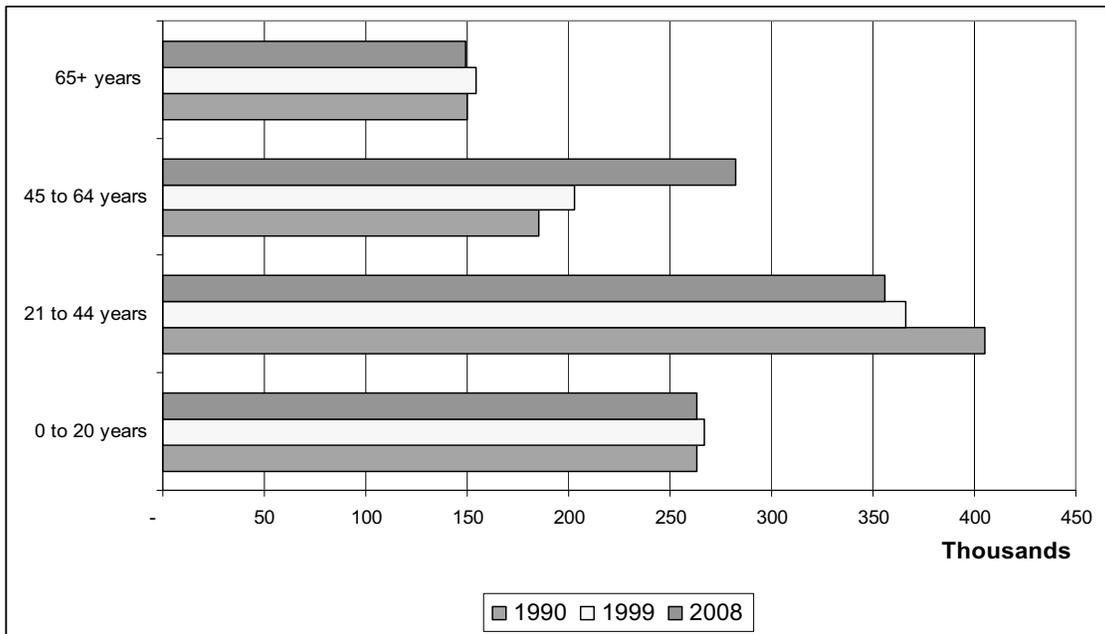
Table 18 and Table 19 provide the year over year absolute and average annual percent growth for the Rhode Island Counties, respectively.

Year	Bristol	Kent	Newport	Providence	Washington	Total
90-00	1,789	5,955	-1,761	25,332	13,540	44,855
00-05	518	1,805	565	7,015	4,219	14,122
05-08	-1,328	-837	-5,520	-2,467	-1,501	-11,653
08-10	1,758	2,338	5,992	8,307	5,016	23,411
10-15	645	2,252	704	8,751	5,262	17,614
15-20	720	2,510	786	9,762	5,873	19,651
20-25	616	2,148	672	8,342	5,018	16,796
25-30	449	1,568	493	6,102	3,671	12,283
08-30	4,188	10,816	8,647	41,264	24,840	89,755

Year	Bristol	Kent	Newport	Providence	Washington	Total
90-00	0.4%	0.4%	-0.2%	0.4%	1.2%	0.4%
00-05	0.2%	0.2%	0.1%	0.2%	0.7%	0.3%
05-08	-0.9%	-0.2%	-2.2%	-0.1%	-0.4%	-0.4%
08-10	1.7%	0.7%	3.7%	0.7%	2.0%	1.1%
10-15	0.2%	0.3%	0.2%	0.3%	0.8%	0.3%
15-20	0.3%	0.3%	0.2%	0.3%	0.8%	0.4%
20-25	0.2%	0.2%	0.2%	0.3%	0.7%	0.3%
25-30	0.2%	0.2%	0.1%	0.2%	0.5%	0.2%
08-30	0.4%	0.3%	0.5%	0.3%	0.8%	0.4%

From 1990 to 2008, the median age of the state’s population increased from 33.8 years to 38.8 years. The increase in the median age can largely be attributed to the growth in the 45 to 64 age group, which increased by 53 percent during this period. The 45 to 64 age group, which accounted for 18.4 percent of total statewide population in 1990, increased to 26.9 percent of total population in 2008. In contrast, the number of Rhode Island residents in the 20 to 44 age group has decreased by -12.2 percent since 1990. By 2008, the 20 to 44 age group accounted for 33.9 percent of total population, down from 40.4 percent in 1990. Figure 33 summarizes the distribution of Rhode Island’s population by age group. This is significant for long term traffic forecasting efforts because of trip making characteristics by age presented earlier in Figure 28, where motorists’ vehicle miles traveled peaks in their 30’s. As the aging trend continues in Rhode Island, it is predicted that VMT will flatten.

**Figure 33: RI Population Distribution by Age, 1990 – 2008**



Source: US Census Bureau

From 1990 to 2005, Newport County, the site of the Newport Pell Bridge, experienced a net decrease of 6,700 residents or roughly negative 7.7 percent. Notwithstanding, the Rhode Island State Planning Office projects that Newport County will add 8,600 residents by 2030. From 2005 to 2008, the distribution of population within Newport County has followed statewide trends as the median age increased by 2.1 years from 41.4 years to 43.5 years. Moreover, the 44 to 64 age group and the 65+ age group increased by 4.6 percent and 11.7 percent, respectively.

Within the larger region which includes Connecticut, Rhode Island, and the metropolitan Boston area in Massachusetts, total population increased from 8.34 million in 1990 to 8.98 million in 2005. This represents an annual average growth rate of 0.48 percent. Table 20 summarizes the historical and

forecast population increases in Rhode Island, Connecticut, and the Boston metropolitan area. By 2030, total population in these states is expected to increase to approximately 9.6 million. Table 21 and Table 22 provide the absolute growth and average annual percent growth between the years, respectively. To note in Table 22 is the lowering of already modest historical growth rates.

Year	Rhode Island	Metro Boston	Connecticut	Total
1990	1,003,464	4,056,947	3,287,116	8,347,527
2000	1,048,319	4,309,456	3,408,029	8,765,804
2005	1,062,441	4,418,117	3,494,925	8,975,483
2010	1,074,199	4,526,777	3,534,086	9,135,062
2015	1,091,813	4,599,150	3,573,885	9,264,848
2020	1,111,464	4,671,523	3,622,774	9,405,761
2025	1,128,260	4,723,543	3,669,990	9,521,793
2030	1,140,543	4,775,562	3,702,400	9,618,505

Sources: U.S. Census Bureau, RI Statewide Planning Office, University of Connecticut, (UCONN), and Boston Metropolitan Area Planning Council (MAPC)

Year	Rhode Island	Metro Boston	Connecticut	Total
90-00	44,855	252,509	120,913	418,277
00-05	14,122	108,661	86,896	209,679
05-10	11,758	108,660	39,161	159,579
10-15	17,614	72,373	39,799	129,786
15-20	19,651	72,373	48,889	140,913
20-25	16,796	52,020	47,216	116,032
25-30	12,283	52,019	32,410	96,712

Year	Rhode Island	Metro Boston	Connecticut	Total
90-00	0.4%	0.6%	0.4%	0.5%
00-05	0.3%	0.5%	0.5%	0.5%
05-10	0.2%	0.5%	0.2%	0.4%
10-15	0.3%	0.3%	0.2%	0.3%
15-20	0.4%	0.3%	0.3%	0.3%
20-25	0.3%	0.2%	0.3%	0.2%
25-30	0.2%	0.2%	0.2%	0.2%

### 3.2.5 Employment Trends

In 2008, the largest industrial sectors in Rhode Island were educational and health care services (26.3 percent of total employment), manufacturing (12.4 percent), retail trade (11.1 percent), arts, entertainment, recreation, accommodation, and food services (10.1 percent), professional services (9.9 percent), and financial services (7.6 percent). The single largest employer was the state government, which accounted for nearly 16,000 jobs or about 3 percent of total statewide employment. The next largest employer was Lifespan, which operates 6 hospitals in the Providence area and 2 hospitals in Newport County. Table 23 summarizes the fifteen largest employers in Rhode Island.

<b>Employer</b>	<b>Employment</b>	<b>Headquarters</b>	<b>Industry</b>
Rhode Island State Government	15,978	Providence, RI	Government
Lifespan	11,772	Providence, RI	Health
U.S. Government	9,700	Washington, DC	Government
Roman Catholic Diocese of Providence	6,200	Providence, RI	Religion
Care New England	6,193	Providence, RI	Health
CVS	5,984	Woonsocket, RI	Retail Trade
Citizens Financial Group. Inc.	5,500	Scotland, UK	Financial Services
Brown University	4,877	Providence, RI	Education
Stop & Shop Supermarket Co.	4,385	Quincy, MA	Retail Services
Bank of America	4,000	Charlotte, NC	Financial Services
Rhode Island ARC	2,851	Cranston, RI	Health
University of Rhode Island	2,545	S. Kingstown, RI	Education
Fidelity Investments	2,300	Boston, MA	Financial Services
General Dynamics Corp.	2,143	Falls Church, VA	Manufacturing
Wal-Mart	2,084	Bentonville, AR	Retail Trade

Source: Rhode Island Economic Development Corporation (RIEDC), December 2008

From 2000 to 2007, total statewide employment increased by nearly 22,000 jobs, representing annual average increase of 0.59 percent during this period. Despite the recession that took hold during the earlier part of this decade, employment increased from 2001 to 2003. Although total statewide employment decreased slightly in 2004, it rebounded the following year and continued to increase through 2007. However, the current recession, which started in late 2007, has had a significant impact on employment in Rhode Island. From the start of the recession through August 2009, an estimated 36,650 jobs have been lost statewide. Total employment in August 2009 remains below 2000 levels. Table 24 summarizes historical employment by county.

<b>Year</b>	<b>Bristol</b>	<b>Kent</b>	<b>Newport</b>	<b>Providence</b>	<b>Washington</b>	<b>Total</b>
2000	25,853	89,172	43,290	295,688	66,756	520,759
2001	25,799	89,217	42,843	295,725	67,094	520,678
2002	26,344	89,706	42,918	298,537	68,215	525,720
2003	26,506	91,140	43,165	303,219	69,236	533,266
2004	26,477	89,721	42,113	299,341	68,395	526,047
2005	26,875	91,278	42,318	303,801	69,652	533,924
2006	27,274	92,687	42,531	309,288	70,852	542,632
2007	26,363	92,771	43,247	309,259	70,930	542,570
2008	25,411	89,421	41,686	298,092	68,616	523,226
8/2009	24,522	86,295	40,228	287,672	67,203	505,920
Job Losses Since 2007	-1,841	-6,476	-3,019	-21,587	-3,727	-36,650

Source: Bureau of Labor Statistics (BLS)

Due to the large number of jobs losses, Rhode Island has one of the highest unemployment rates in the United States. Prior to the start of the recession, the 2007 unemployment rate in Rhode Island was 5.2. By August 2009, the statewide unemployment rate has more than doubled, increasing to 12.6 percent. Employment losses have occurred in all five counties. In August 2009, the unemployment rate ranged from 9.7 percent in Washington County to 13.8 percent in Providence County. The most recent forecasts prepared by the Rhode Island Budget Office anticipate that employment will continue to decrease through 2009 and in 2010. However, total employment is expected to increase by 0.7 percent in 2011 and continue to increase from 2012 through 2014. In contrast, the unemployment rate in New England and in the United States in August 2009 was 8.5 percent and 9.6 percent, respectively. Table 25 summarizes projected employment growth rates for Rhode Island from 2009 to 2014.

<b>Year</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Employment Growth Rate	-2.8%	-0.9%	0.7%	1.3%	1.5%	1.1%

Source: Rhode Island Budget Office, November 2008

### 3.2.6 Wages and Income

In 2008, the median household income in Rhode Island was \$55,701, which was the 14<sup>th</sup> highest median household income in the United States. From 2002 to 2008, median household income increased by 2.87 percent in real terms. Moreover, per capita income was approximately \$29,011 in 2008. Personal income, which is the sum of wages and salaries, rents, capital gains, interest, dividends, and personal transfers, has increased by roughly 3 to 5 percent each year since 2002. Despite the current economic downturn, personal income increased by 2.7 percent in 2008. Table 26

summarizes the annual increase in personal income, per capita income, and median household income in Rhode Island from 2002 to 2008.

<b>Year</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Personal Income (%)	3.6%	4.3%	5.0%	2.8%	5.3%	5.2%	2.7%
Per Capita Income	24,484	24,669	25,087	27,217	25,937	27,777	29,011
Median Household Income	45,634	48,854	48,722	51,458	51,814	53,568	55,701

Sources: U.S. Census Bureau

Using forecasts prepared by the Rhode Island Budget Office, personal income is projected to increase by 1.3 percent in 2009, 2.6 percent in 2010, and continue to increase by over 4.5 percent from 2011 through 2014. Moreover, the Rhode Island Budget Office anticipates that wages and salaries will increase by a 0.8 percent in 2009, 0.7 percent in 2010, and 2.9 percent in 2011. Table 27 summarizes the state’s forecasts for personal income as well as wages & salaries from 2009 through 2014.

<b>Year</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Personal Income (%)	1.3%	2.6%	4.5%	4.8%	4.6%	3.2%
Wages & Salaries (%)	0.8%	0.7%	2.9%	4.2%	4.1%	2.8

Source: Rhode Island Budget Office, November 2008

### 3.2.7 Households

Based on the data assembled by the Rhode Island Statewide Planning Office, the total number of households in Rhode Island increased from 408,424 in 2000 to 430,970 in 2007. This translates into an average annual increase of 0.77 percent. During this period, average household size decreased from 2.57 persons to 2.48 persons. The Rhode Island Statewide Planning Office forecasts that the total number of households will increase to 440,602 by 2010 and 505,627 by 2030. By 2030, average household size is expected to decrease to 2.26 persons. Table 28 summarizes historical and forecast household data.

Table 28: Historical and Forecast Number of Households in RI, 2000 – 2030		
Year	Households	Household Size
2000	408,424	2.57
2003	418,131	2.53
2005	424,558	2.50
2007	430,970	2.48
2010	440,602	2.44
2015	456,287	2.39
2020	473,449	2.35
2025	490,149	2.30
2030	505,627	2.26

Source: Rhode Island Statewide Planning Office

### 3.2.8 Vehicle Ownership

In 2007, there were nearly 700,000 vehicles registered in the state of Rhode Island. From 2000 to 2007, approximately 41,192 additional vehicles were registered in the state, representing an average of 5,900 vehicles per annum. During this period, vehicle registration increased at an average annual rate of 0.87 percent. The Rhode Island Statewide Planning Office forecasts that the total number of registered vehicles will increase to 838,803 by 2030, representing an annual average growth rate of 0.79 percent. From 2000 to 2030, the number of vehicles per household is estimated to remain fairly static, slightly increasing from 1.61 to 1.66. Table 29 summarizes historical and forecast vehicle ownership in Rhode Island.

Table 29: Historical and Forecast Vehicle Ownership in RI, 2000 – 2030		
Year	Rhode Island	Vehicles/Household
2000	658,520	1.61
2003	676,165	1.62
2005	687,954	1.62
2007	699,712	1.62
2010	717,385	1.63
2015	746,484	1.64
2020	778,355	1.64
2025	809,596	1.65
2030	838,803	1.66

Source: Rhode Island Statewide Planning Office

### 3.2.9 Commuting Patterns

According to the U. S. Census Bureau, approximately 81 percent of Rhode Island residents commuted in a single occupancy vehicle (SOV) in 2008. During this period, another 8 percent carpooled, 4 percent worked from home, 3 percent walked, and another 3 percent used public transportation. It should be noted that the number of commuters who work from home increased

from 12,000 to 19,000 from 2002 to 2008. Average commuting time is typically between 22 to 23 minutes. Table 30 summarizes historical commuting patterns by transportation mode from 2002 to 2008.

<b>Table 30: Rhode Island Commuting Patterns, 2002 – 2008</b>							
	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Workers 16 yrs. +	495,494	502,797	492,837	500,588	514,823	502,606	509,180
Car, truck, or van: drove alone	80.45%	83.08%	79.20%	79.33%	81.09%	80.70%	80.80%
Car, truck, or van: carpooled	7.65%	8.10%	8.96%	8.68%	8.86%	8.80%	8.00%
Public transportation	2.30%	1.69%	2.10%	2.58%	2.64%	2.70%	2.70%
Walked	1.68%	1.58%	1.63%	2.47%	3.00%	3.40%	3.10%
Other means	1.70%	0.96%	1.08%	1.48%	1.76%	1.20%	1.70%
Worked at home	2.46%	2.25%	2.75%	2.70%	2.65%	3.30%	3.70%
Mean travel time to work (minutes)	22.2	21.8	23.1	22.7	22.3	23	23.1

Source: US Census Bureau

The majority of Rhode Island residents, 91.7 percent, commuted within the state in 2000, the most recent year that this data is available. The remaining 8.3 percent of Rhode Island commuters work out-of-state in Boston or nearby suburbs; Worcester, Massachusetts; Hartford, Connecticut or New London County, Connecticut. Less than 1 percent of Rhode Island residents commuted to states other than Rhode Island, Massachusetts, or Connecticut.

### 3.2.10 Economic Development

In order to spur economic activity and reduce unemployment, the state government has identified the following long-term economic objectives: (i) the development and continued operation of fully serviced industrial sites; (ii) the reuse of industrial facilities in the central cities; (iii) capital improvements for pollution abatement; and (iv) the expansion of resource-based industries, particularly tourism, marine shipping, and fishing. In addition, the RI Statewide Planning Office has established the goals of creating 34,200 new jobs by 2020, encourage sustainable industrial and commercial development, and maintain a business environment conducive to the growth of suitable industry and commerce.

### 3.2.11 Travel and Tourism

Tourism is an important industry in Rhode Island, accounting for \$1.87 billion economic output or 4.5 percent of Gross State Product (GSP) in 2007. Tourist attractions within Rhode Island include beaches, historical sites, gambling, water recreation, and outdoor activities. Average expenditures per visitor in 2007 were estimated to be \$384. During that same year, the tourism industry provided 40,635 jobs as well as \$1.13 billion in wage and salaries. From 2005 to 2007, the number of total

visitors to Rhode Island remained relatively stable at nearly 8 million visitors. Table 31 summarizes the size and estimated economic impact of the tourism industry in Rhode Island.

<b>Table 31: Estimated Impact of the Tourism Industry in RI, 2005 to 2007</b>			
	<b>2005</b>	<b>2006</b>	<b>2007</b>
# Business Visitors (Millions)	1.7	1.7	1.7
# Leisure Visitors (Millions)	6.1	6.1	6.2
# Total Visitors (Millions)	7.8	7.8	7.9
Output (\$ Billions)	N/A	1.78	1.87
Wages & Salaries (\$ Billions)	N/A	1.08	1.13
Employment	N/A	40,297	40,635

Source: Rhode Island Tourism Division

### 3.2.12 Newport County

Newport County, located adjacent to Narragansett Bay, includes the cities of Newport, Portsmouth, and Middletown located on Aquidneck Island, which can be accessed by the Newport Pell Bridge from Jamestown as well as the Mt. Hope Bridge and Sakonnet River Bridge along the northern end of the island. The county also includes the cities of Jamestown, Tiverton, and Little Compton on the mainland. In addition to the bridges, the Rhode Island Public Transit Authority (RIPTA) also provides trolley service, and seasonal ferry service from Providence to Newport. The tourism industry is an important component of the local economy. Attractions include historical mansions, yachting, music and film festivals and the International Tennis Hall of Fame and Museum.

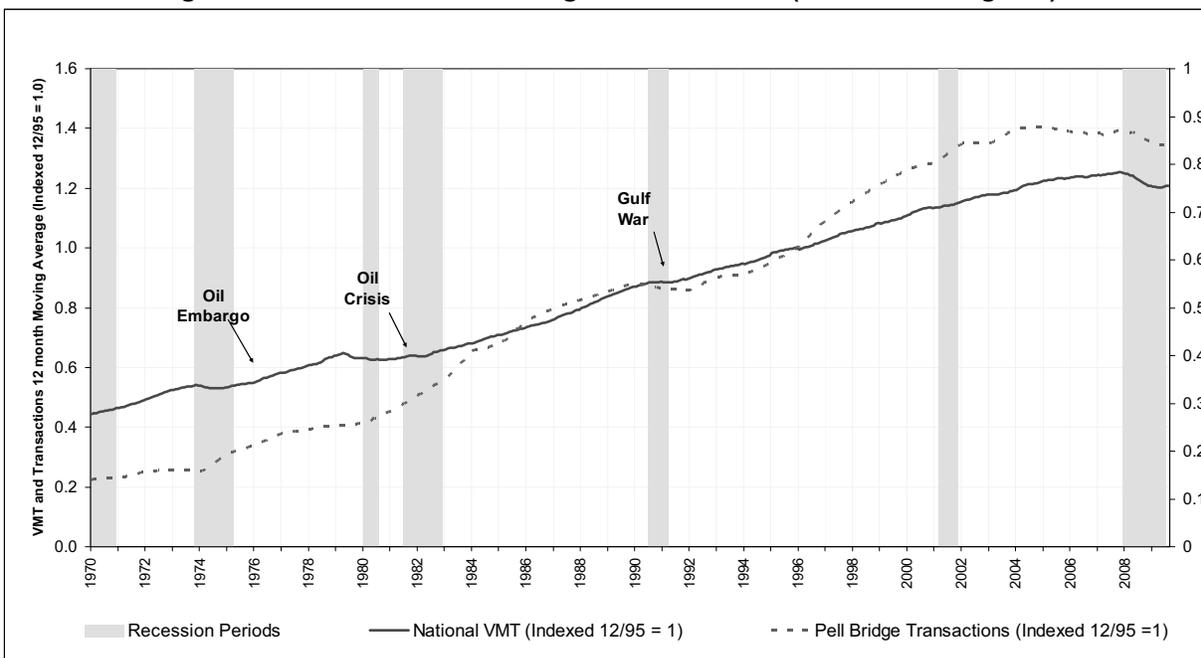
In 2008, Newport County had a total population of approximately 80,000. There are approximately 1,200 businesses that operate in Newport County, most of which are small businesses. Defense, retail trade, and tourism are the leading industries in Newport County. The largest single employer is the Naval Undersea Warfare Center, which employs approximately 2,700 employees. The second and third largest employers are the Newport Hospital and the City of Newport, which each have approximately 800 employees. As part of efforts to encourage economic development, the state government is planning to undertake \$1.8 million in infrastructure improvements for the Aquidneck Corporate Park. The facility supports industrial activities related to the defense, marine environmental and manufacturing industries. The proposed improvements are expected to create or preserve 292 jobs in and around the City of Middletown.

### 3.3 Nationwide Historical Traffic and Economic Recessions

The government has declared that the United States was in a recession from December 2007 through October 2009. This recession is reflected in all transportation and economic indicators, but is seen most clearly in the number of vehicle-miles traveled (VMT) on highways. This is explicitly visible in Figure 34, annual VMT (a 12-month moving total) for the years 1970 through 2009 which shows

the flattening of the VMT curve around 2005 with a significant drop as of late 2007. In addition to national VMT, annual transactions for the Newport Pell Bridge are shown to understand the correlation between national and local trends. Both trend lines are indexed such that the 12-month moving average for December 1995 is equal to 1.0. Growth is similar for both indices, leveling off in 2005 and decreasing in 2007. Overall the trends are similar apart from two time periods when growth on the Newport Pell Bridge outpaced national VMT, the early 1980's and from 1995 to 2003. Additionally the past recessions are highlighted to show the impact on VMT during these periods. There is a generally leveling of traffic during these periods which was analyzed in more detail in this section.

**Figure 34: Annual VMT and Pell Bridge Traffic 1970-2009 (12-month moving total)**



Jacobs has analyzed the current economic situation as it compares to major historical recessions in the past century. The most significant declines in historical VMT were four (4) points in time: during World War II, the 1970s and 1980s oil crises and in the early 1990s during the Gulf War. In 2006 and 2007, VMT remained the same as late 2005 levels, and in by March 2008 it began to decline. In November 2008 traffic was 3.6 percent below the previous year's, and by the summer of 2009 some improvement was seen; July 2009 numbers were down just 1.7% from the previous year. As stated previously, some of this improvement may be due to the large reduction in gas prices from the summer of 2008 to the summer of 2009.

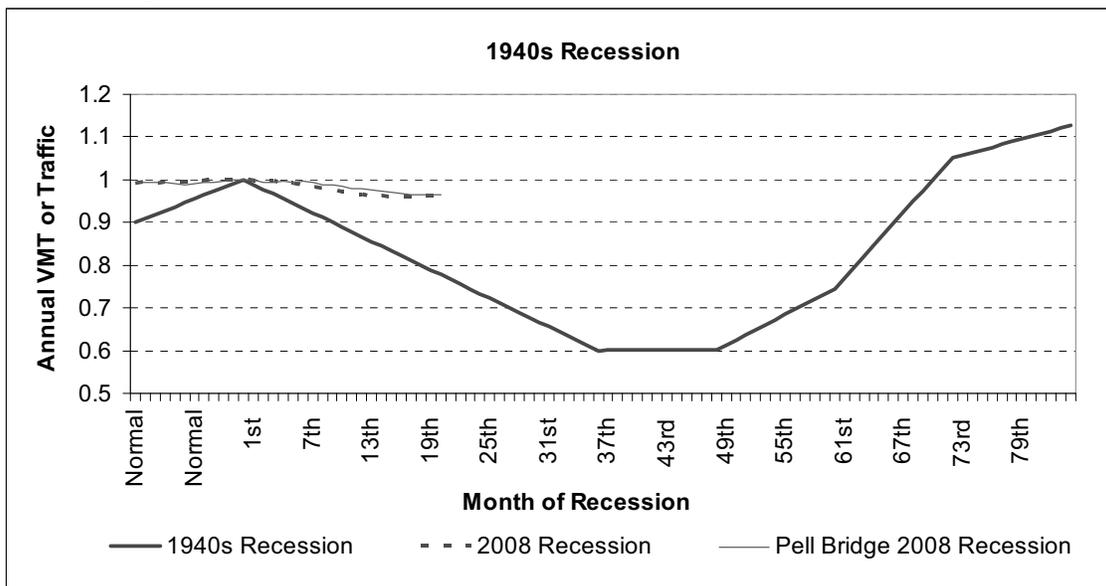
Annual VMT data were compiled from 1940 to July 2009. A review of VMT from 2006 to 2009 revealed that nationwide VMT was rising until October 2007 when it reached its peak and then began

to decline. December 2007 officially marked the beginning of the first recession of the twenty-first century. The 2008 recession VMT is illustrated as the dashed trend line on Figure 35 through Figure 38, indexed from November 2007. The Newport Pell Bridge transactions are indexed to its pre-recession peak in October 2007, as represented by the green line.

### 3.3.1 Comparative Recession Analysis

The recession of 1940 occurred in the middle of World War II. Figure 35 demonstrates how the escalation of the War corresponds with the rapid decline in traffic as it reached a sharp peak in the beginning of 1941 before experiencing a steep decline to early 1944. At this point traffic is seen to have reached a plateau at approximately 200 billion vehicle-miles traveled. This is almost five (5) years of declining traffic levels until late 1945 when VMT began to rise again.

Figure 35: VMT of the 1940s Recession vs. VMT of the 2008 Recession, Indexed



Again, the above figure and subsequent figures show the vehicle-miles traveled indexed to the first month of each recession, and the Newport Pell Bridge traffic was indexed to its pre-recession peak in October 2007, for comparative purposes.

Both the recessions in the 1970s and 1980s were partially due to the oil crises. Figure 36 shows that traffic began to decline in late 1973. Two (2) years later traffic started to rise making this recession's recovery shorter in comparison to both the 1940s and what later came in the early 1980s.

**Figure 36: VMT of the 1970s Recession vs. VMT of the 2008 Recession, Indexed**

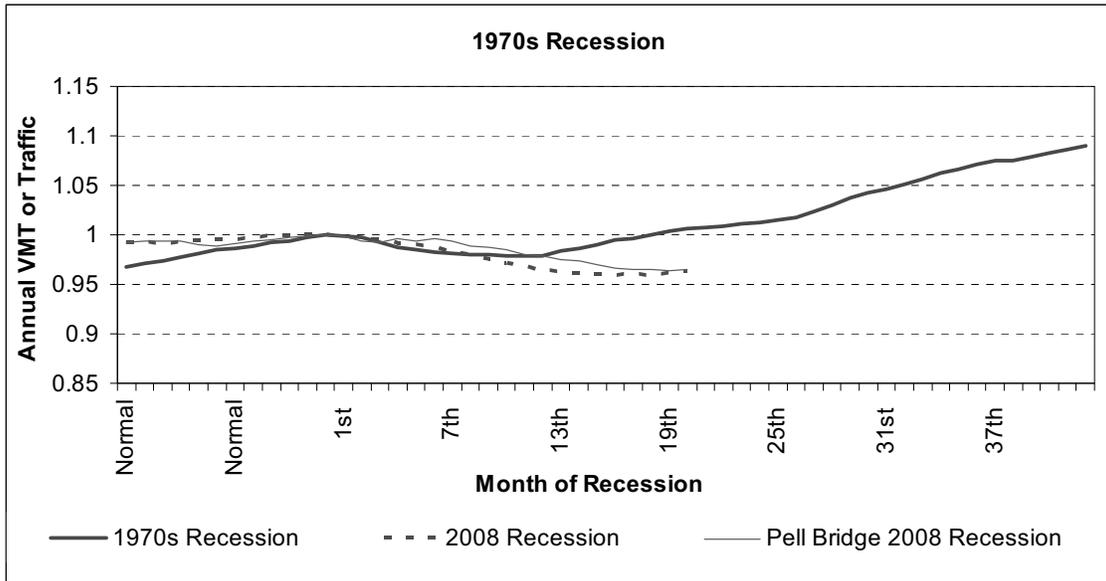
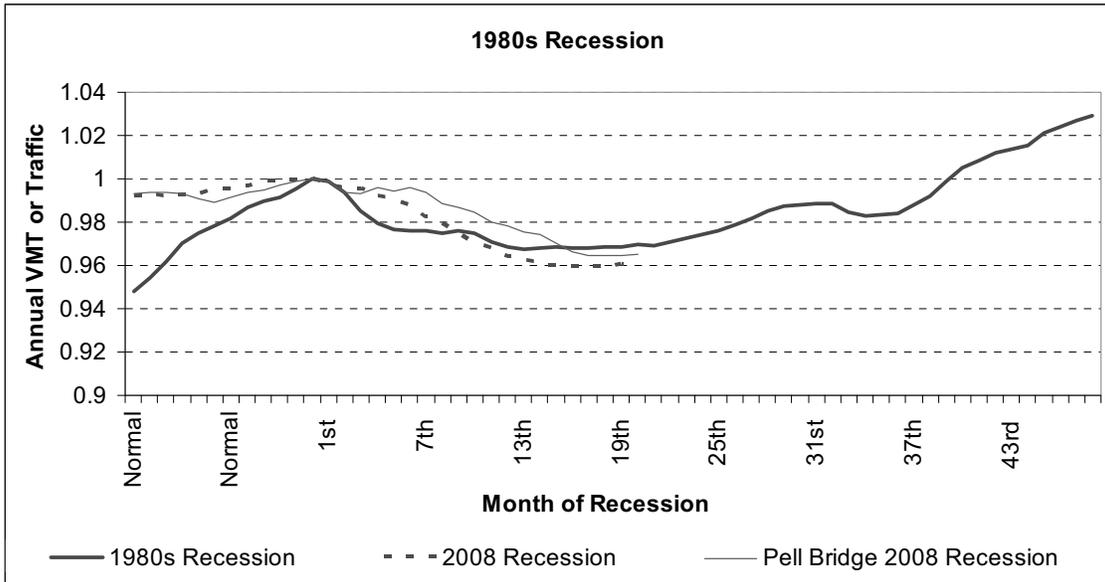


Figure 37 illustrates the recession of the early 1980s. Traffic reached its peak in the beginning of 1979 at approximately 1,569 billion vehicle miles traveled, and quickly fell to its low point in 1980. Traffic saw a slight increase in early 1980, but proceeded to decline further for almost two (2) years. This further decline created more volatility in traffic causing a longer and more gradual visible ascent to recovery.

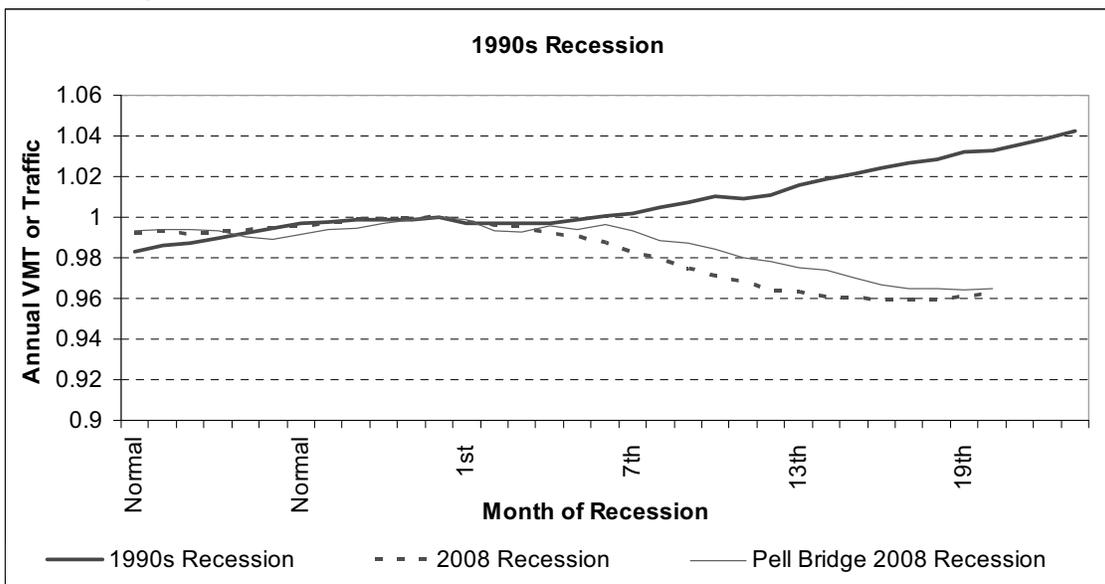
In both Figure 36 and Figure 37, the 2008 VMT trend line continues to decline at the point where it crosses the lowest, respective, historical point in VMT. This is most visible in Figure 36 but Figure 37 illustrates a constant decline in VMT in the 1980s, which can be more easily compared to the current 2008 trend line because of their parallel steady decreases in traffic.

Figure 37: VMT of the 1980s Recession vs. VMT of the 2008 Recession, Indexed



Most recently, the current economic situation can be looked at in comparison to the last recession that occurred in the 1990s, shown in Figure 38. This recession coincided with the Gulf War. The early 1990s VMT decline was small in that it lasted less than a year before returning to its previous traffic level in June 1991. The 2008 recession traffic reduction appears to be far greater than that in the early 1990s.

Figure 38: VMT of the 1990s Recession vs. VMT of the 2008 Recession, Indexed



### **3.3.2 Newport Pell Bridge Forecasted Traffic and Its Relationship to Economic Recessions**

Based on the recessionary analysis in the previous section, it is the opinion of Jacobs that the current economic recession is best compared to the 1980s recession. Note that it took over five (5) years for traffic to return to the pre-recession levels during that period. This comparison will serve as the baseline recession to model for the 2009 long-term projections.

Clearly, there is a great deal of uncertainty in the type of recovery the economy can expect. Based upon the most recent reports of economic recovery without job recovery for at least the next two years coupled with the higher than average unemployment levels in Rhode Island a slow recovery is reasonable to expect for the State and for the Newport Pell Bridge.

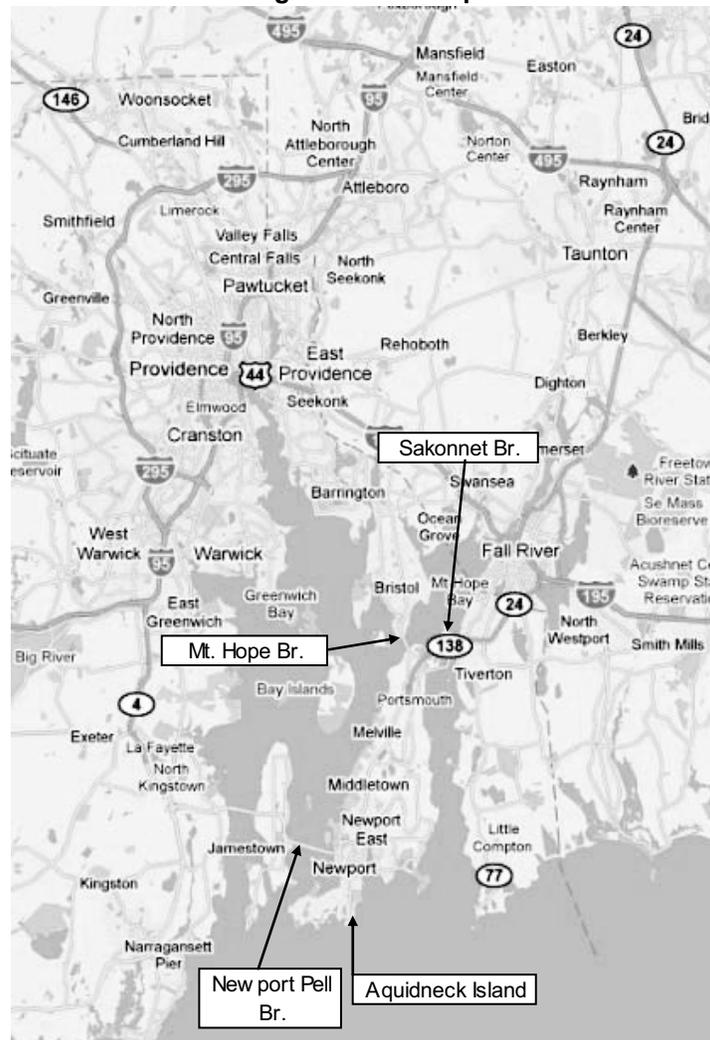
## 4. Roadway Network

The following sections discuss the network of roadways servicing the region around the Newport Pell Bridge, as well as planned improvements in the region.

### 4.1 Rhode Island

The State of Rhode Island is served by Interstates 95, 195, and 295. Arterials connecting these major roadways with local routes to Aquidneck Island include Route 4 and Route 24. From these, traffic is channeled onto Aquidneck Island via Route 138 (Newport Pell and Sakonnet Bridges) and Route 114 (Mount Hope Bridge). A map of the area is shown in Figure 39.

Figure 39: Area Map



Source: Google Maps

In 2005, Rhode Island had a total of 6,556 centerline road miles within the state. This includes approximately 1,222 miles of roadway in rural areas and 5,194 miles of roadway in urban areas.

Within the total road network, there are approximately 156 centerline road miles of interstate highways, freeways, and expressways. The Rhode Island Department of Transportation (RIDOT) also includes 141.1 miles of ramps and U-turns within its classification of the statewide road network. Table 32 summarizes the highway network in the Rhode Island.

	Rural		Urban		Other		Total	
	Miles	% Total	Miles	% Total	Miles	% Total	Miles	% Total
Interstate	21.4	0.3%	49.8	0.8%	N/A	0.0	71.2	1.1%
Principal Arterial	48.0	0.7%	85.4	1.3%	N/A	0.0	133.4	2.0%
Minor Arterial	65.1	1.0%	357.6	5.5%	N/A	0.0	422.7	6.4%
Major Collector	145.3	2.2%	361.1	5.5%	N/A	0.0	506.4	7.7%
Minor Collector	125.0	1.9%	608.9	9.3%	N/A	0.0	733.9	11.2%
Off System (Local)	817.0	12.5%	3,731.0	56.9%	N/A	0.0	4,548.0	69.4%
Ramps and U-turns	N/A	0.0	N/A	0.0	141.1	2.2%	141.1	2.2%
<b>Total</b>	<b>1221.8</b>	<b>18.6%</b>	<b>5,193.7</b>	<b>79.2%</b>	<b>141.1</b>	<b>2.2%</b>	<b>6,556.7</b>	<b>100.0%</b>

Sources: The Rhode Island Statewide Planning Office in conjunction with Rhode Island Department of Transportation (RIDOT) and the Federal Highway Administration

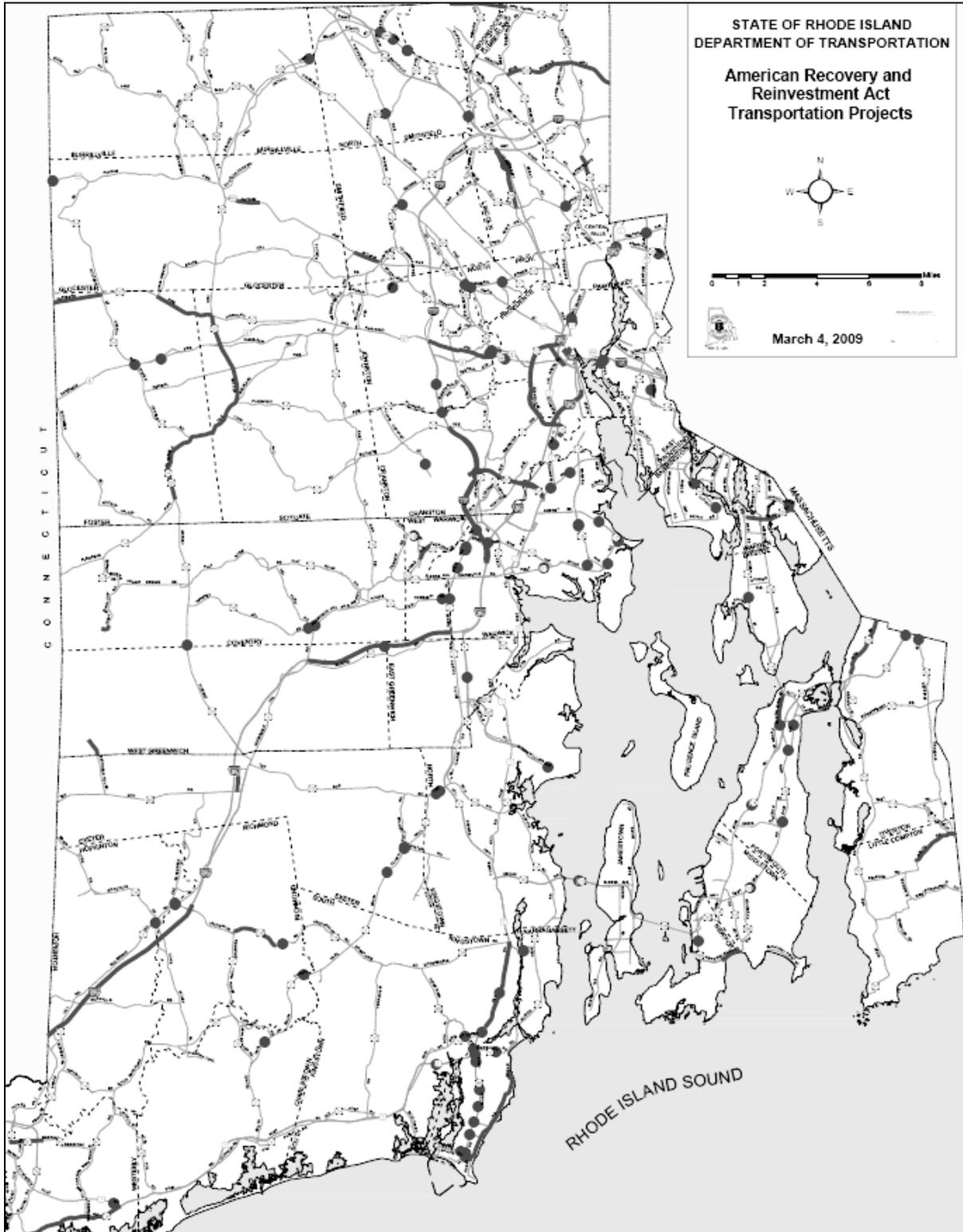
The state government has recently embarked on a number of highway and transit projects throughout the state, which are being partially or fully funded by the American Recovery and Reinvestment Act (ARRA) of 2009. ARRA is providing \$137.0 million for 50 highway and road projects as well as \$29.5 million in grants to the Rhode Island Public Transit Authority (RIPTA). Figure 40 summarizes the highway projects that will be undertaken from 2009 to 2011. Planned highway and road projects within Newport County receiving ARRA funding include the following:

- improvements to East Main Road (Rte 138) and Bristol Ferry Road (Rte 114) in Portsmouth;
- improvements to Memorial Boulevard (Rte 138A) in Newport;
- Main Road in Tiverton (Rte 138); and
- the Jamestown Bridge (Rte 138).

None of these projects are expected to have any significant impact on Newport Pell Bridge traffic and toll revenues.

In addition to the projects highlighted in Figure 40, the Rhode Island State Model (RISM) shows a number of other highway network improvements planned for the region. Most of these are related to improvements in ramp design or highway alignment, and although the projects will have an impact to other regions of the state (such as the re-alignment of I-195 in Providence) there is no foreseeable impact on the Newport Pell Bridge traffic or toll revenues. However, there is one ongoing project that may have an impact on Newport Pell Bridge – the replacement of the Sakonnet Bridge.

Figure 40: ARRA Highway Improvement Projects



Source: Rhode Island Department of Transportation (RIDOT)

## **4.2 Sakonnet River Bridge Replacement**

The state has commissioned a new bridge to replace the deteriorating Sakonnet River Bridge. The new Sakonnet Bridge is expected to open in Fiscal Year 2012. Until then, various disruptions in bridge operations have affected the circulation of traffic in the area.

During recent years, the Sakonnet Bridge has experienced numerous lane closures for the purpose of bridge inspections. Lane closures were intermittent, but the majority of lane closures took place on weekdays between the hours of 9 AM and 3 PM. During these lane closures, it is possible that a small amount of passenger car traffic rerouted over the Mount Hope and Newport Pell Bridges. However, since these lane closures primarily took place during non-peak travel periods, and the closest alternative is the Mount Hope Bridge, it is unlikely that a significant number of passenger cars traveled the extra distance to the Newport Pell Bridge.

As a result of bridge inspections, several restrictions have been placed on the existing Sakonnet Bridge as safety measures. Beginning in summer 2007, the weight restriction for the bridge was lowered from 38 tons to 22 tons. During the summer of 2008, the weight restriction was reduced again to 18 tons, and in addition vehicles with trailers or more than three axles were prohibited from using the bridge. Until the new bridge is completed, these prohibited vehicles (mainly commercial vehicles) must instead use the Mount Hope or Newport Pell Bridges to travel to and from the Aquidneck Island. When the new Sakonnet Bridge opens, some of these temporarily displaced commercial vehicles are likely to return to using the Sakonnet Bridge rather than continuing to use the Mount Hope or Newport Pell Bridges. This change in commercial traffic patterns has had a small impact on the Newport Pell Bridge traffic and toll revenue in recent years; while there has been no significant change in commercial volumes during the Sakonnet construction (truck traffic has decreased nationwide due to the recession), the average number of axles on Newport Pell Bridge trucks has increased in the past several years. After the new Sakonnet Bridge opens, it is expected that the average axles per truck on the Newport Pell Bridge will decline to pre-construction levels, affecting truck toll revenues.

Since the new Sakonnet Bridge will have the same number of lanes as the current Sakonnet Bridge, no noticeable change in traffic volumes is anticipated.

## 5. Traffic and Toll Revenue Forecasts

For the purpose of developing traffic and toll revenue projections for the Newport Pell Bridge, Jacobs developed a spreadsheet model using the knowledge gained from analysis of historical transaction and toll revenue data, regional traffic data, socioeconomic data and economic projections. This chapter presents the Newport Pell Bridge traffic and toll revenue forecasts, the methodology and assumptions used to make these forecasts, and a sensitivity analysis of certain key assumptions.

### 5.1 Toll Rates

This section presents the Newport Pell Bridge toll rate assumptions and compares current rates to other bridge and tunnel crossings in the northeast.

#### 5.1.1 Future Toll Rate Assumptions

Transaction and toll revenue projections were developed over 30 years for two future toll rate alternatives:

- A “Base Case” which assumes that tolls will not change beyond the rates implemented on September 8, 2009
- A “Toll Increase Alternative” which assumes tolls will increase roughly 10 percent every three years, with the next increase occurring in September 2012 (FY 2013)

For the Toll Increase Alternative, the future year tolls are presented in Table 33. It was assumed that the rate change would occur in September of the fiscal years shown. The new discount plan prices are shown in the bottom two rows of the table; these are further discussed on page 76.

**Table 33: Future Toll Rates Assumed with Toll Increase Alternative**

	2009	2010	2013	2016	2019	2022	2025	2028	2031	2034	2037
Two-Axle Vehicles at \$2.00 (cash)	\$ 2.00	\$ 4.00	\$ 4.50	\$ 5.00	\$ 5.50	\$ 6.00	\$ 6.50	\$ 7.00	\$ 7.50	\$ 8.00	\$ 8.50
Two-Axle Vehicles at \$2.00 (E-Z)	\$ 2.00	\$ 4.00	\$ 4.50	\$ 5.00	\$ 5.50	\$ 6.00	\$ 6.50	\$ 7.00	\$ 7.50	\$ 8.00	\$ 8.50
Two-Axle AWAY Vehicles at \$1.75 (E-Z)	\$ 1.75	\$ 4.00	\$ 4.50	\$ 5.00	\$ 5.50	\$ 6.00	\$ 6.50	\$ 7.00	\$ 7.50	\$ 8.00	\$ 8.50
Two-Axle HOME Vehicles at \$1.75 (E-Z)	\$ 1.75	\$ 4.00	\$ 4.50	\$ 5.00	\$ 5.50	\$ 6.00	\$ 6.50	\$ 7.00	\$ 7.50	\$ 8.00	\$ 8.50
Two-Axle HOME Vehicles at \$0.91 (E-Z)	\$ 0.91	\$ 0.91	\$ 1.00	\$ 1.25	\$ 1.50	\$ 1.50	\$ 1.75	\$ 1.75	\$ 1.75	\$ 2.00	\$ 2.00
Two-Axle HOME Vehicles at \$.83 (E-Z)	\$ 0.83	\$ 0.83	\$ 1.00	\$ 1.25	\$ 1.50	\$ 1.50	\$ 1.75	\$ 1.75	\$ 1.75	\$ 2.00	\$ 2.00
3+ Axle Vehicles (cash) - PER AXLE	\$ 1.00	\$ 2.00	\$ 2.25	\$ 2.50	\$ 2.75	\$ 3.00	\$ 3.25	\$ 3.50	\$ 3.75	\$ 4.00	\$ 4.25
3+ Axle Vehicles (E-Z) - PER AXLE	\$ 1.00	\$ 2.00	\$ 2.25	\$ 2.50	\$ 2.75	\$ 3.00	\$ 3.25	\$ 3.50	\$ 3.75	\$ 4.00	\$ 4.25
NEW High Frequency 30-Day Unlimited*	\$ -	\$ 40	\$ 48	\$ 60	\$ 72	\$ 72	\$ 84	\$ 84	\$ 84	\$ 96	\$ 96
NEW Low Frequency 6 trip/30 Days**	\$ -	\$ 5.46	\$ 6.58	\$ 8.22	\$ 9.87	\$ 9.87	\$ 11.51	\$ 11.51	\$ 11.51	\$ 13.16	\$ 13.16

\* Commuter Rebate Plan discontinued as of February 15, 2010

\*\* New commuter plans begin February 15, 2010

#### 5.1.2 Reasonableness of Tolls / Comparison to Other Facilities

Figure 41 compares current round trip passenger car toll rates on toll crossings throughout the northeast that accept E-ZPass. Both one-way and two-way facilities are represented; for facilities that toll in both directions the amount shown in the Figure is the one-way toll multiplied by two. For toll facilities that offer E-ZPass discounts, the figure shows the incremental amount added to the E-ZPass toll rate to determine the total cash toll rate. The Newport Pell Bridge, with a one-way full-

price toll of \$4.00 (round trip = \$8.00), has a full-price, round-trip toll similar to or lower than the nine major crossings in New York City; however, Newport Pell’s reduced E-ZPass rate of \$0.83 per crossing (\$1.66 round trip) for residents and \$0.91 per crossing (\$1.82 round trip) for frequent customers is only a fraction of the discounted rates on the NYC crossings and is on par with the discounted rates at other E-ZPass crossings. Overall, it can be said that the Newport Pell Bridge passenger car toll rates are reasonable compared to rates at other E-ZPass toll facilities.

**Figure 41: Comparison of Current Round Trip Passenger Car Tolls on E-ZPass Crossings**

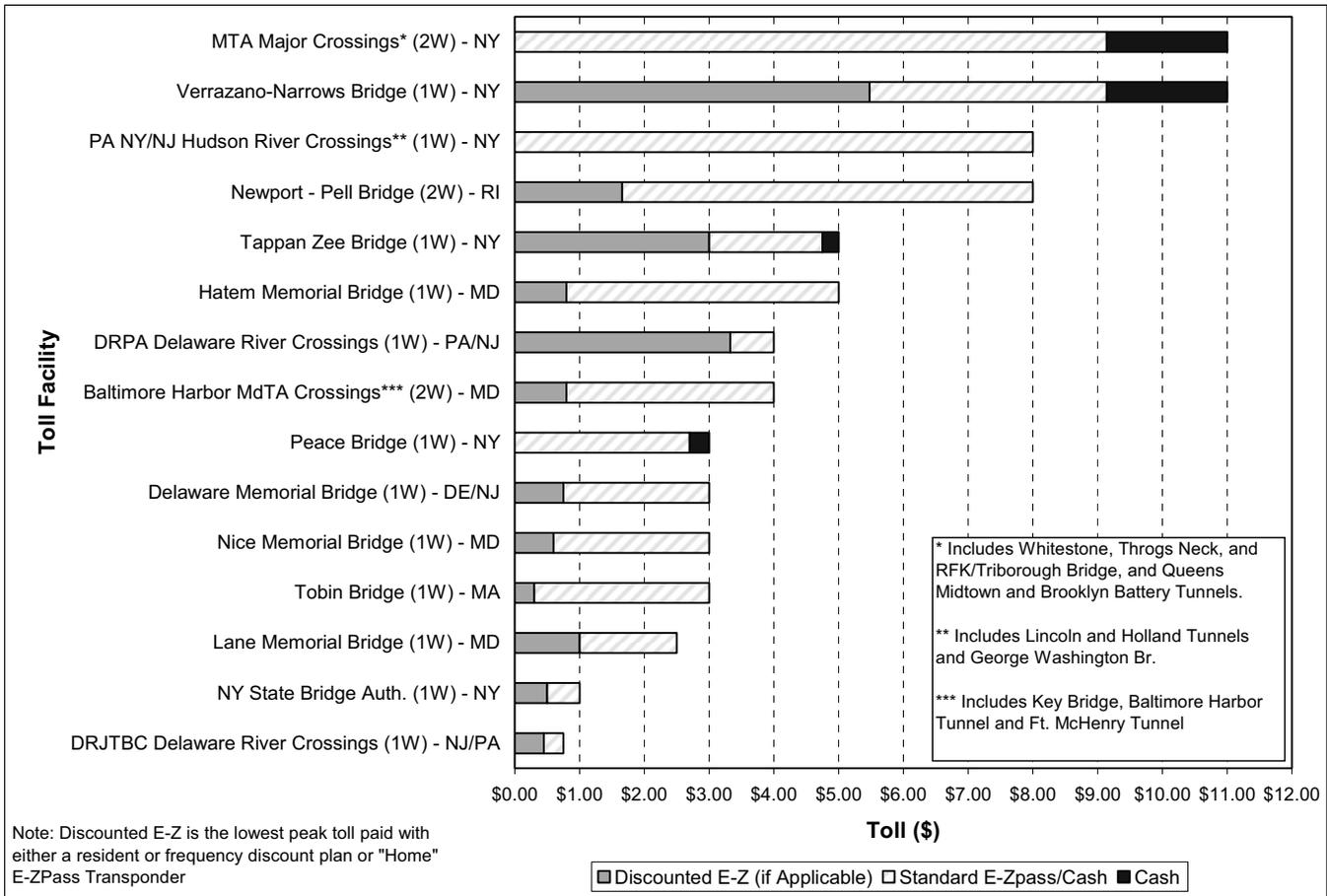
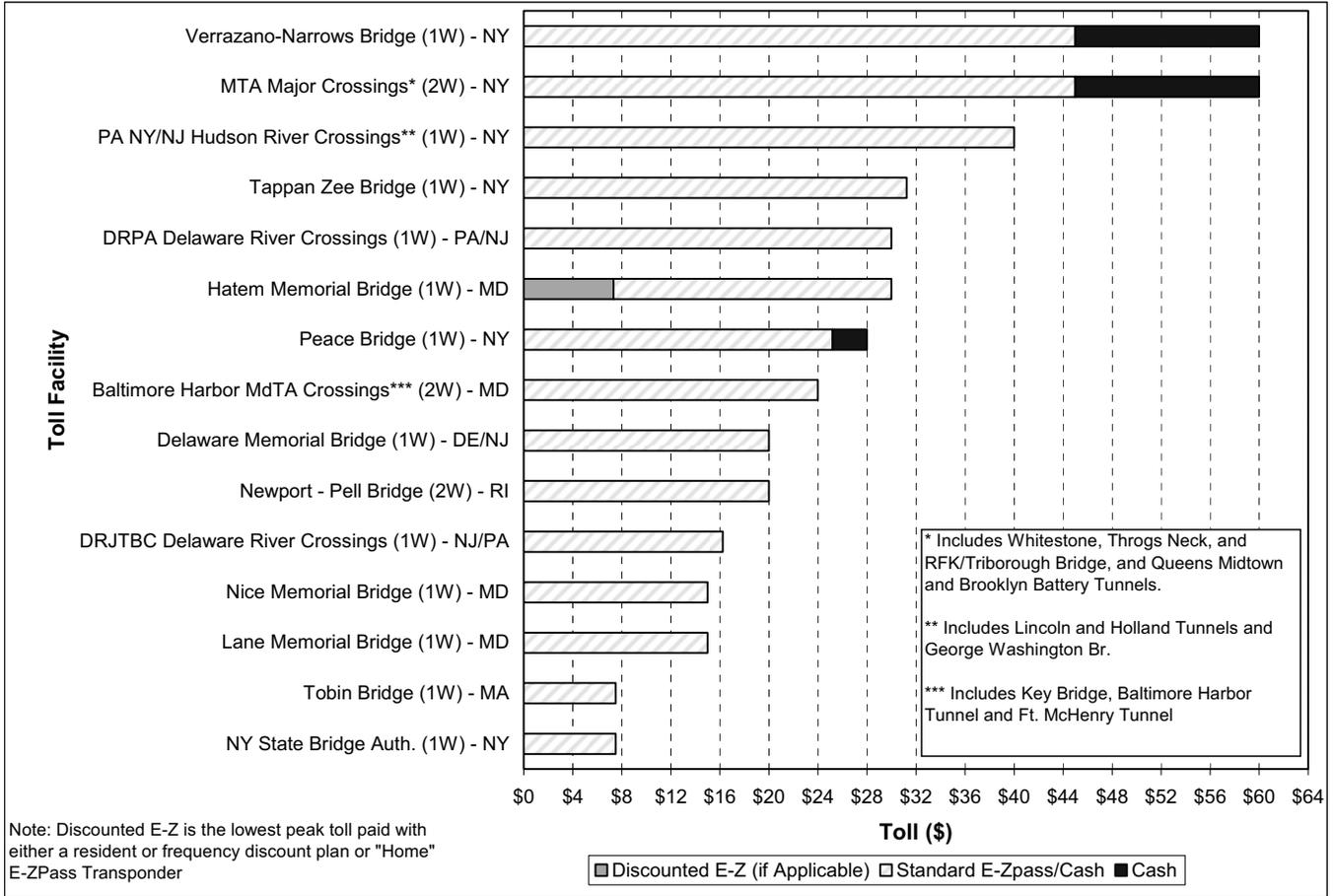


Figure 42 shows a similar comparison for five-axle vehicles. The Newport Pell Bridge charges \$10.00 in each direction, or \$20 for a round trip. This is on the lower end of five-axle tolls charged among various E-Pass crossings. It can be said that the Newport Pell Bridge commercial vehicle toll rates are reasonable compared to other E-ZPass toll facilities.

**Figure 42: Comparison of Current Round Trip 5-Axle Vehicle Tolls on E-ZPass Crossings**



## 5.2 Traffic and Toll Revenue Model: Methodology and Assumptions

The traffic and toll revenue model with resulting transaction and toll revenue estimates and projections were made for the Newport Pell Bridge based on data through August 2009, including the full 2009 fiscal year. As part of the analysis a traffic and toll revenue model for the existing RITBA toll facility was developed. This model has the ability to adjust projections based on various economic parameters and toll rates and is segmented by the type of vehicle and payment type.

The spreadsheet-based traffic and toll revenue model uses actual traffic and toll revenue data provided by RITBA as its foundation. These data were provided by month from FY06 through August 2009 and annually since tolling began in 1970. The model forecasts transactions by the following vehicle and payment classes:

- Two-Axle Vehicles paying with Cash (Class 1&2)
- Two-Axle Trucks paying with E-ZPass (Class 2)

- Two-Axle AWAY E-ZPass Vehicles (Class 1)
- Two-Axle HOME E-ZPass Non-Discounted Vehicles (Class 1)
- Two-Axle HOME E-ZPass Commuter Plan Discounted Vehicles (Class 1)
- Two-Axle HOME E-ZPass Resident Rate Vehicles (Class 1)
- 3+ Axle Vehicles paying with Cash
- 3+ Axle Vehicles paying with E-ZPass

Passenger car and commercial vehicle transactions were forecasted based upon historical and projected correlation with the Gross Domestic Product and Industrial Production Index, respectively. The forecasts by vehicle type were then disaggregated into applicable payment categories based upon historical and projected participation trends. The forecasted transactions by payment type were then converted to toll revenue estimates based on the historical and projected average toll by the respective vehicle and payment classes.

The model adjusted the forecasts to acknowledge the toll increase for all cash customers and E-ZPass customers without a RI Resident or Commuter Plan, effective September 8, 2009. In addition, since E-ZPass is new to the facility (it began in December 2008), it was necessary to develop a Pro Forma estimate for FY 2009, on which to build all future year traffic forecasts. This Pro Forma estimate assumed no tokens were in use and E-ZPass was ramped up for the full fiscal year. Since the toll increases on the Newport Pell Bridge were too recent to determine the effects on traffic, data from other New England facilities was used to estimate the impact of the toll increase, and a reduction of transactions was imposed to the post-toll increase traffic of FY10.

Additionally, the model takes into account the slight changes that RITBA made to the Commuter Plan effective October 2009. Under the new plan, commuters now only need 26 trips in a 30-day period to qualify for the frequency rebate, whereas earlier they needed to make 31 trips. Also, by February 15, 2010 this Commuter Plan will be replaced by two new commuter frequency discount plans, one covering unlimited trips in a 30-day period and the other charging one price that covers six trips in a 30-day period. These changes, further described on page 76, were reflected in the model.

The following sections present further detail on the growth assumptions, vehicle types and payment methods, and toll elasticity.

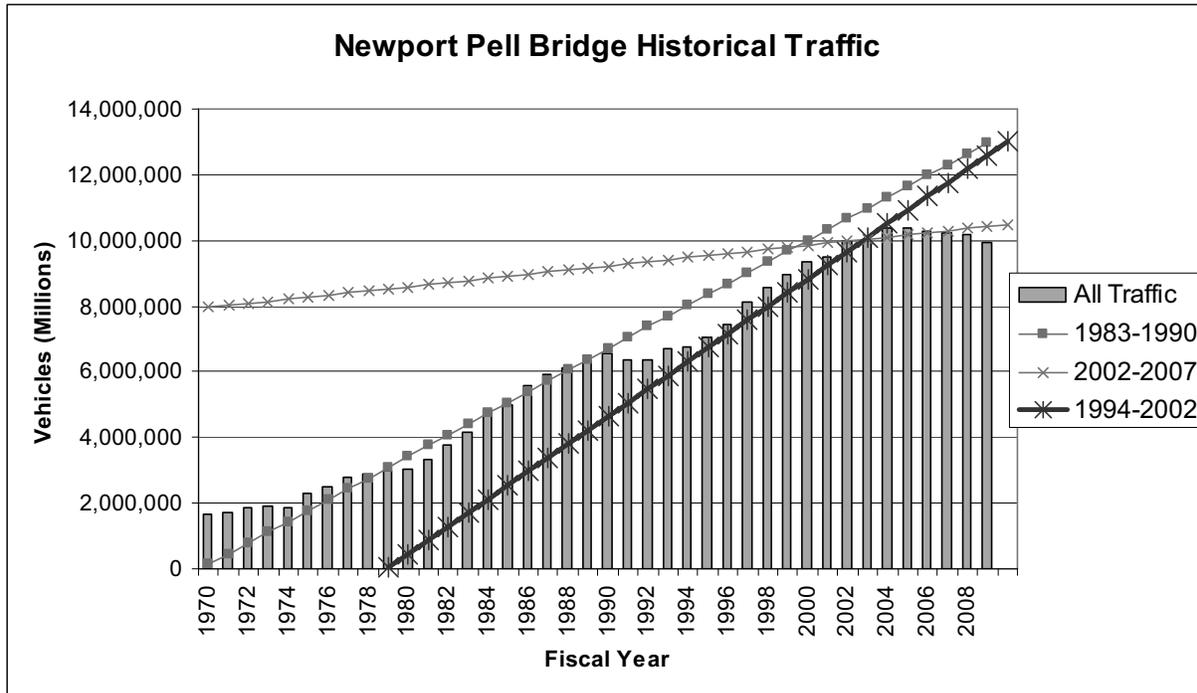
## **5.2.1 Growth Assumptions**

The following sections discuss the assumptions made regarding future traffic growth on the Newport Pell Bridge.

### 5.2.1.1 Recent Recessionary Effects

In Section 3.3.2 the estimated impact of and subsequent emergence from the recession was discussed in the context of traffic levels on the Newport Pell Bridge. It is anticipated that traffic levels will stop decreasing in 2010 with very modest gains during the recovery. These modest gains are not based upon a return to previous growth levels experienced in the 80's and 90's, but instead those experienced recently so that they represent the "new normal" introduced in the discussion of national VMT. Figure 43 presents an analysis of historical traffic on the Newport Pell Bridge. The blue columns represent traffic levels by fiscal year from 1970 to 2009. The various lines represent the growth rate over the time period identified.

Figure 43: Newport Pell Bridge Historical Traffic Analysis



The purpose of the analysis is to show the past does not necessarily reflect the future. The recent leveling off of national VMT that predated increased gas prices and the economic recession discussed in a previous section is consistent with Figure 43. The new long term growth rates should be more reflective of the recent past (2002 to 2007), rather than the much higher growth rates of earlier decades, especially as the area served by the Newport Pell Bridge matures.

### 5.2.1.2 Correlation to Economic Factors

The first step in developing the traffic and toll revenue projections was to develop a base of FY 1988 through FY 2009 toll transactions. Historical car toll transaction growth was then correlated to gross domestic product (GDP) and historical truck growth was correlated to increases in the U.S. total industrial production (IPI).

Future car and truck toll transactions were projected separately by applying the historical correlations to projected GDP and total IPI growth rates estimated by industry experts in the *Blue Chip Economic Indicators*. FY 2010 toll transaction growth was further reduced due to the recent dampening effects of the economic downturn on travel. In addition, it is expected in the following years that overall traffic growth will not be as high as it has been throughout the 1990s through the first half of this decade, due to such factors as Baby Boomers retiring and driving less and new technology making road travel less necessary (as discussed in the socioeconomic chapter of this report). Therefore, some dampening was also applied to traffic growth rates over the long term.

## **5.2.2 Vehicle Types and Payment Methods**

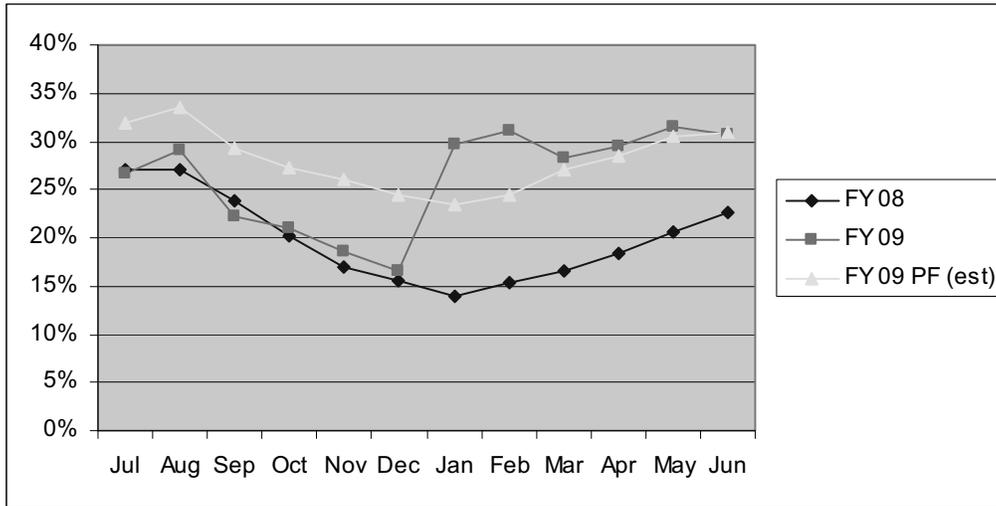
Because E-ZPass is fairly new to the Newport Pell Bridge, and also because different payment methods and vehicle types react differently to toll increases, it was necessary to make a number of assumptions regarding the split of traffic among the different types of customers and payment methods.

Since all future year forecasts are grown from a FY 2009 base, which only had half a year of E-ZPass, it was first necessary to develop estimates for a FY 2009 Pro Forma scenario – one where E-ZPass was assumed to be in use, and tokens eliminated, for the full fiscal year.

### **5.2.2.1 Fiscal Year 2009 Pro Forma Assumptions**

As shown in Figure 44, while tokens were in use, the percent of passenger cars paying with cash ranged from about 25 to 30 percent at the height of the summer to 15 percent or less in the winter months. When E-ZPass was implemented, cash-paying traffic shot up to more than 30 percent during the winter months. As more and more people acquired a transponder, the FY 2009 share paying by cash normalized at a line parallel to the FY 2008 share. Using this data, Jacobs estimated the share paying by cash if E-ZPass had been in use, without tokens, for the full year. This estimate, represented by the yellow line on Figure 44, runs parallel to the actual cash shares for FY 08 and 09.

**Figure 44: Two-Axle Vehicles Paying with Cash, Actual FY 2008-2009 and Estimated FY 2009 Pro Forma**



Records of E-ZPass transactions from recent months were queried and summarized to determine what percent of two-axle E-ZPass transactions were made by Home (RI) versus Away (other) E-ZPass. Home E-ZPass transactions were split among standard (then \$1.75), qualifying Commuter Plan (\$0.91) and RI Resident Plan (\$0.83) trips. Class 2 E-ZPass transactions (two-axle trucks, then \$2.00) were also included in these splits. Vehicles with three or more axles were split by cash or E-ZPass, though they are charged the same toll regardless of payment method. While data was only available for the spring and summer months, the transaction splits during the fall months were estimated to be similar to the spring, and the winter months were estimated to lean more towards Resident and Commuter Plan trips. Table 34 shows the monthly estimates of how two-axle cash, two axle E-ZPass, and three or more axle vehicle transactions were split among payment types.

**Table 34: Estimated Splits Among Payment and Vehicle Types, FY 2009 Pro Forma**

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Two-Axle Vehicles at \$2.00 (cash)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Two-Axle Vehicles at \$2.00 (E-Z)	3.1%	3.1%	3.0%	2.9%	2.8%	2.7%	2.7%	2.7%	2.8%	2.9%	3.0%	3.1%
Two-Axle AWAY Vehicles at \$1.75 (E-Z)	20.0%	21.6%	18.5%	12.7%	8.3%	8.3%	8.3%	8.2%	9.3%	12.7%	15.3%	15.9%
Two-Axle HOME Vehicles at \$1.75 (E-Z)	2.0%	2.0%	2.0%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	2.0%	2.0%
Two-Axle HOME Vehicles at \$0.91 (E-Z)	0.9%	0.9%	1.0%	1.2%	1.5%	1.6%	1.7%	1.7%	1.5%	1.2%	1.2%	1.0%
Two-Axle HOME Vehicles at \$.83 (E-Z)	74.0%	72.5%	75.5%	81.2%	85.5%	85.5%	85.5%	85.5%	84.5%	81.2%	78.5%	78.0%
3+ Axle Vehicles (cash)	31%	30%	28%	27%	25%	22%	22%	23%	24%	28%	36%	34%
3+ Axle Vehicles (E-Z)	69%	70%	72%	73%	75%	78%	78%	77%	76%	72%	64%	66%

Both the estimated splits shown in Figure 44 and Table 34 were used to break down the FY 09 monthly traffic into the eight vehicle/payment types. Since some vehicles were paying more once E-ZPass was implemented, the July through December numbers were slightly reduced. Using estimated toll elasticities, it was determined that the effect of the E-ZPass implementation, with its higher rates for some vehicles, was a loss of about 70,000 vehicles in FY 2009, a 0.7 percent overall traffic loss.

By multiplying the estimated 2009 Pro Forma transactions by the FY 2009 toll rates (post-E-ZPass implementation), the FY 2009 Pro Forma revenue was determined. A gain of 3.8 percent, or about \$0.4 million, was estimated with the Pro Forma scenario. Table 35 compares the FY 2009 Pro Forma traffic and revenue to the actual FY 2009 traffic and revenue.

**Table 35: FY 2009 Pro Forma vs. Actual Traffic and Revenue**

	<b>Annual Transactions (000s)</b>	<b>Annual Revenue (Ms)</b>
FY 2009 Actual	9,941	\$12.7
FY 2009 Pro Forma	9,871	\$13.1
<i>Difference</i>	-0.7%	3.8%

*Note: 2009 Actual numbers are unaudited*

Jacobs used the 2009 Pro Forma numbers as a base from which future year traffic forecasts were developed.

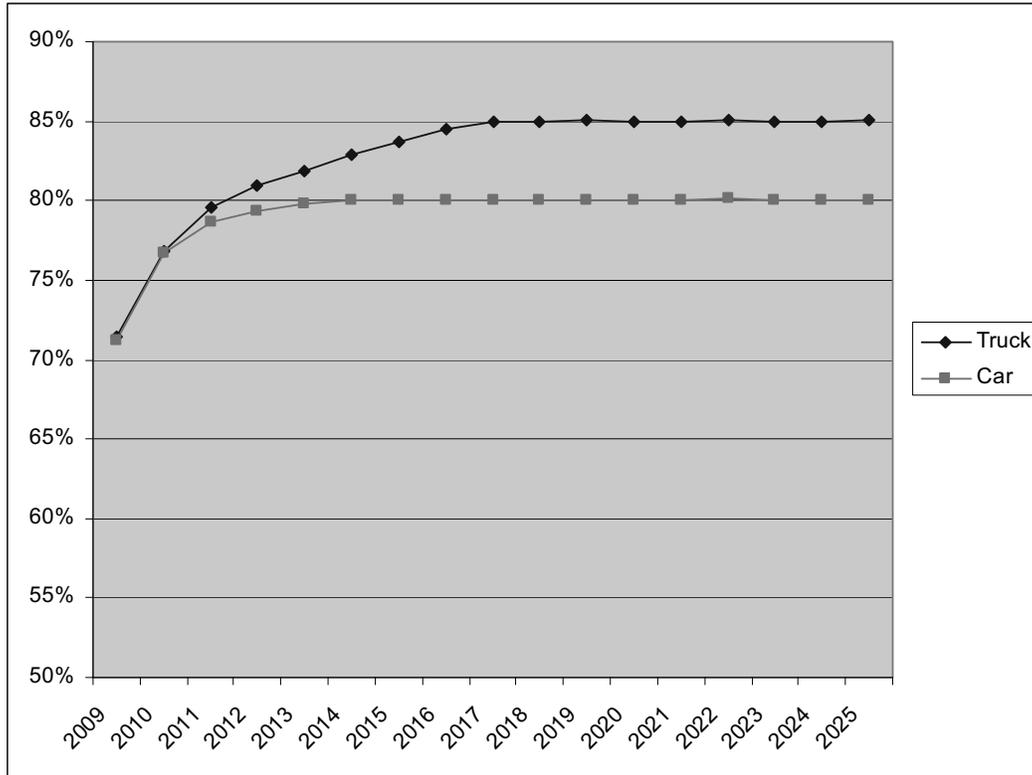
### **5.2.2.2 Future Year E-ZPass Assumptions**

Because of the disparity in toll prices among passenger cars – which has grown larger recently with the September 8 toll increase – it is prudent to look at certain customer characteristics to most accurately split vehicles into the correct payment categories in the future year forecasts. This section presents Jacobs’ assumptions for the future E-ZPass market share, plus the split among various E-ZPass plans.

#### **5.2.2.2.1 Future E-ZPass Market Share**

In August 2009, 67 percent of two-axle vehicles and 77 percent of vehicles with three or more axles (typically trucks) that cross the Newport Pell Bridge paid with E-ZPass. The Pro Forma estimate for FY 2009 was about 72 percent of trucks and cars. These market shares are expected to grow at a diminishing rate to an estimated maximum of 80 percent for cars and 85 percent for trucks, as shown in Figure 45 (because trucks represent a very small percentage of traffic, the overall E-ZPass share would look similar to the share for cars). These shares are commensurate with other toll facilities in the Northeast that have been studied by Jacobs.

**Figure 45: Estimated Future E-ZPass Market Share on Newport Pell Bridge**



### 5.2.2.2 Shift to Current Discounted RI E-ZPass Plans

Data was obtained on E-ZPass transponder usage, home agency, state of residence, and toll rates paid over recent months prior to the toll increase in order to estimate the future split among the various E-ZPass plans. Jacobs summarized the frequency of use of Home and Away E-ZPass tags to determine if there were customers eligible to take part in one of the RI E-ZPass discount programs that were currently paying full price. With the doubling of tolls, it is likely that a number of these would switch to a discounted RI E-ZPass, leading to lower toll revenues.

Table 36 shows the estimated annual percent of full-price transactions per category that are made by customers with 26 or more Newport Pell Bridge crossings per month, and therefore could be part of the current RI E-ZPass Commuter Plan. Seven percent of “Away” tagholders and 28 percent of “Home” tagholders currently paying full price were found to be eligible for the plan. The table also shows an estimate of the percent of these eligible trips assumed to switch to the program in FY 2010 and FY 2011. From Jacobs’ experience, even with significant savings, not many tagholders acquire a second E-ZPass transponder to get a discount; it is much less likely that these “Away” tagholders versus “Home” tagholders will make the switch. Overall, it was estimated that 25,000 vehicle trips would switch from their current full-price E-ZPass plan to the RI Commuter Plan in FY 2010, and an additional 12,000 would make the switch in FY 2011. After that point, it is assumed that no additional shift would occur.

**Table 36: Estimates of Full-Price Vehicles Moving to Commuter Plan (in thousands)**

	Starting Trips	Trips Eligible for Commuter Plan		% of These Assumed to Move to Commuter Plan		Annual Transactions Assumed to Move to Commuter Plan (000s)	
		%	Vehicle Trips (000s)	in FY10	in FY11	in FY10	in FY11
Two-Axle AWAY Vehicles Paying Full Price	928	7%	65	10%	5%	7	3
Two-Axle HOME Vehicles Paying Full Price	132	28%	37	50%	25%	18	9
Total	1,061		102			25	12

Additionally, there are a number of Rhode Island residents that are paying full price for their trip when they could be part of the Resident Discount Plan. As shown in Table 37, 35 percent of Home E-ZPass trips that are paying full price are made by customers that have Rhode Island addresses attached to their account, and therefore are likely eligible for the resident discount. To estimate how many of these Home vehicle trips would move to the Resident Plan, Jacobs also looked at how frequently these customers crossed the Newport Pell Bridge. Some 68 percent of trips were made by customers with 20 or more trips a month, which, at \$4.00 per trip currently, is a needless loss of significant money for the customer. Spurred on by the recent toll increase, it was estimated that half of these relatively frequent users would make the switch to the Resident Plan in FY 2010. Overall, this calculates to 11.9 percent of full-price Home E-ZPass vehicles making the switch, or 16,000 trips annually. A lesser amount – 3,000 – was estimated to make this switch in FY 2011.

Rhode Island-based vehicles with an Away (i.e., non-Rhode Island) E-ZPass are much more difficult to estimate, since their address information is kept private from RITBA. Overall it was assumed that five percent of these transactions (46,000) would move to the RI Resident Discount category in FY 2010, and 1.3 percent (10,000) would move in FY 2011.

**Table 37: Estimates of Full-Price Vehicles Moving to Resident Discount Plan (in thousands)**

	Starting Trips	% with RI Address	% of These Making 20+ Trips/Mo.	% of These Assumed to Move to RI Resident E-Z	Overall % Assumed to Move to Resident Plan		Annual Transactions Assumed to Move to Resident Plan (000s)	
					in FY10	in FY11	in FY10	in FY11
Two-Axle AWAY Vehicles Paying Full Price	928	50%	50%	20%	5.0%	1.3%	46	11
Two-Axle HOME Vehicles Paying Full Price	132	35%	68%	50%	11.9%	3.0%	16	3
Total	1,061						62	13

Note: Address information for Away vehicles are kept private, therefore, the shaded numbers are a very rough estimate that lean toward a conservative revenue forecast.

### 5.2.2.2.3 New Commuter E-ZPass Plans

The RITBA board approved two new commuter plans in late December, 2009. While the \$0.83 resident plan will continue to be in effect, the two new plans will replace the current \$0.91/26 trips commuter rebate plan. The two new plans, slated to take effect on February 15, 2010, are as follows:

- A “low-frequency plan”, which requires at least 6 trips per 30-day period to get the full discount. For a prepaid price of \$5.46, participating customers who travel 6 times within 30

days would in essence be paying  $\$5.46/6 = \$0.91$  per trip. Participants who cross the bridge only twice in 30 days would also be charged  $\$5.46$  ( $\$5.46/2 = \$2.73/\text{trip}$ ), however, this is still an advantage over the current  $\$4.00$  toll per trip without a discount plan. After the sixth trip or the 30<sup>th</sup> day – whichever comes first – the cycle will restart, with another  $\$5.46$  charged upfront to their account, with 30 days to make another 6 trips.

- A “high-frequency plan” where  $\$40$  prepaid will cover unlimited trips within a 30-day period. With one of these plans, only very frequent users would benefit; the average cost per trip would be as shown in Table 38.

**Table 38: Price per Crossing with New \$40 Unlimited Trips Commuter Plan**

Crossings / 30 Days	Round Trips / 30 Days	Price Per Crossing
40	20	\$ 1.00
44	22	\$ 0.91
48	24	\$ 0.83
50	25	\$ 0.80
55	27.5	\$ 0.73
60	30	\$ 0.66

As seen in the table, the more trips that are made, the less the cost per trip. With a  $\$40$  plan, participants with at least 22 round trips per 30 days would pay the current commuter plan toll of  $\$0.91$ . Customers that make fewer trips than this can still pay the discounted toll of  $\$0.91$  if they were to participate in the 6 trip/30 day plan. However, there are apt to be some commuters who will choose the unlimited trips plan due to its simplicity, without worrying about how many trips they are actually making; this plan may promote some additional travel to and from Aquidneck Island by regular bridge users. Jacobs does not believe that the potential to switch the E-ZPass tag between cars will be enough of an issue to make any revenue difference.

Jacobs developed a model to shift RI E-ZPass customers based on their monthly trip frequency into the plan that benefits them most. The model used actual Newport Pell Bridge passenger car E-ZPass frequency data from October 2009 (an average month). The following assumptions were included:

- Only Class 1 vehicles (passenger cars) with a RI E-ZPass tag could be eligible for the plan.
- Every “Home” (i.e., RI E-ZPass) customer that would benefit from a discount plan would participate in the plan that benefits them most.
- Some “Away” (i.e., Non-RI E-ZPass) tagholders could also benefit from a plan, but they must get a RI tag to participate. Only a certain share of these would actually go out and purchase a RI tag; it is more likely that frequent customers to the Newport Pell Bridge would acquire the RI tag than infrequent customers. We estimated that the following percent of

Away trips that would be eligible for the plan – assuming they got a RI E-ZPass tag – would acquire a RI tag and participate.

**Table 39: Percent of Non-Rhode Island E-ZPass Trips Assumed to Switch to RI E-ZPass to be Eligible for New Commuter Discount**

<b>Trip Frequency / Month</b>	<b>Percent of Eligible Trips Assumed to Switch to RI E-ZPass</b>
Very Low Freq (1-4 trips/mo)	2%
Low Freq (5-9 trips/mo)	10%
Medium Freq (10-25 trips/mo)	50%
High Freq (26+ trips/mo)	75%

- A toll elasticity of -0.08 was included in the estimates (see page 78 for more explanation of toll elasticity). This was used to adjust the traffic volumes whenever there was a change in toll rate due to implementation of the new plan.
- Since the current commuter rebate plan would be eliminated, these trips would be charged the standard toll of \$4.00/trip unless they participated in the new plan.

Jacobs' commuter plan model estimates that the effect of new plans will be a decrease in overall revenue of about 3 to 4 percent.

### 5.2.2.3 Heavy Vehicles

The truck size restriction on the Sakonnet Bridge due to its reconstruction, as described earlier on page 66, likely caused the average number of axles to increase on the Newport Pell Bridge in recent years. As shown in Table 7 on page 13, the average toll rate – and therefore axle count – for vehicles with three or more axles has increased in recent years. In the forecasts, it was assumed that the axle count will remain at 4.02 - the same as in FY 2009 - until FY 2012, the expected year of completion for the new Sakonnet Bridge, when it is estimated that the Newport Pell Bridge average 3+-axle truck size will be reduced to 3.70 axles. It is assumed that the new Sakonnet River Bridge have truck weight and restrictions similar to the Newport Pell Bridge and Mount Hope Bridges, allowing trucks with three or more axles.

### 5.2.3 Toll Elasticity

As stated previously, there were no toll increases for nearly 40 years on the Newport Pell Bridge until this past year. The effects of the toll changes due to E-ZPass implementation and the end of tokens in December 2008 and January 2009 are difficult to determine, as this change occurred in the middle of a recession when traffic was declining nationwide. It is still too early to determine the full effects of the September 8, 2009 toll increase. There are differences between September of 2009 and September of 2008 – a large difference in gas prices and a shift in Labor Day – that also make it

difficult to identify the effect of the toll increase alone. Jacobs has recently completed traffic and toll revenue projections for other New England toll facilities; using pre- and post-toll increase data from these facilities, combined with knowledge of how traffic has reacted to toll increases at other locations, Jacobs formulated estimates on how Newport Pell Bridge traffic would change after the September 2009 increase, as well as any future proposed increases.

“Toll elasticity” is a factor that quantifies how traffic reacts to a change in tolls. It is defined as the percent traffic change if there were a 100 percent increase (i.e., a doubling) in toll rates. Jacobs recently completed studies for the New Hampshire Turnpike System and the Massachusetts Turnpike that involved proposed toll changes. Looking at their actual traffic numbers for the year before and after their 2007 and 1990 toll increases, respectively, and removing the effects of background growth, their toll elasticities were calculated to the numbers shown in Table 40; the assumed Newport Pell Bridge toll elasticities are also shown in the table.

**Table 40: Actual and Assumed Toll Elasticities**

Payment/ Vehicle Type	Actual Toll Elasticity		Estimated Toll Elasticity
	New Hampshire Turnpike	Mass Pike	Newport Pell Bridge
Auto Cash	-0.19	-0.12	<b>-0.15</b>
Auto E-ZPass	+0.03		<b>-0.08</b>
Truck Cash	-0.21		<b>-0.21</b>
Truck E-ZPass	-0.15		<b>-0.15</b>

As the table shows, the New Hampshire toll elasticity is similar – when combined – to the Mass Pike’s overall elasticity of -0.12. It also shows that for the New Hampshire Turnpike there was actually a tiny increase in passenger car E-ZPass traffic when the overall tolls were increased; this is likely because all passenger cars with a NH tag receive a 30 percent discount. On the other hand, Newport Pell Bridge users do not receive a discount simply by acquiring a RI tag; they must be residents or frequent users. Therefore, it was assumed they would have a small negative toll elasticity. Passenger car cash elasticity for the Newport Pell Bridge was assumed to be slightly lower (i.e., less elastic) than New Hampshire, as it has a higher share of infrequent trips/vacationers than New Hampshire, who may not know about toll rate increases.

While toll facilities experience a loss in traffic when tolls are increased, some of this lost traffic comes back within a few years. This phenomenon is typically seen on facilities in built-up areas that are no longer experiencing high annual growth rates. Jacobs assumed that half the amount of traffic lost would return gradually over three years after the toll increase year.

Using these factors, it was estimated that 6.6 percent of annual traffic would divert from the Newport Pell Bridge due to the September 8, 2009 toll increase (considering traffic for a full year after the increase, and removing the effects of any other factors, such as background growth or increased E-

ZPass market share). While recent daily numbers may indicate a gain over last year's traffic, this is misleading; the peaking gas prices last summer caused traffic to dip, especially vacation traffic. Therefore, we cannot rely on these early post-toll increase numbers to be indicative of the toll increase's effect on a full year of traffic.

### 5.3 Traffic and Toll Revenue Forecasts

Newport Pell Bridge transaction and gross toll revenue forecasts are presented in Table 41 for both the Base Case and toll increase scenarios.

**Table 41: Newport Pell Bridge Traffic and Gross Toll Revenue Forecasts**

Fiscal Year	Base Case*		With Toll Increases**	
	Annual Transactions (000s)	Annual Toll Revenue (Ms)	Annual Transactions (000s)	Annual Toll Revenue (Ms)
2009***	9,941	\$12.7	9,941	\$12.7
2010	9,464	\$16.9	9,464	\$16.9
2011	9,498	\$18.0	9,498	\$18.0
2012	9,660	\$18.1	9,660	\$18.1
2013	9,824	\$18.4	9,696	\$20.3
2014	9,900	\$18.5	9,765	\$21.0
2015	9,976	\$18.7	9,866	\$21.3
2016	10,051	\$18.9	9,822	\$23.8
2017	10,118	\$19.0	9,882	\$24.7
2018	10,185	\$19.2	9,977	\$24.9
2019	10,253	\$19.3	9,952	\$27.5
2020	10,321	\$19.5	10,014	\$28.4
2021	10,388	\$19.6	10,104	\$28.7
2022	10,453	\$19.8	10,161	\$30.1
2023	10,516	\$19.9	10,220	\$30.8
2024	10,577	\$20.1	10,286	\$31.0
2025	10,637	\$20.2	10,246	\$33.7
2026	10,697	\$20.3	10,300	\$34.6
2027	10,756	\$20.5	10,379	\$34.9
2028	10,816	\$20.6	10,432	\$36.4
2029	10,877	\$20.7	10,487	\$37.1
2030	10,937	\$20.9	10,551	\$37.3
2031	10,997	\$21.0	10,590	\$38.8
2032	11,058	\$21.2	10,645	\$39.5
2033	11,118	\$21.3	10,709	\$39.8
2034	11,179	\$21.4	10,682	\$42.6
2035	11,239	\$21.6	10,736	\$43.6
2036	11,300	\$21.7	10,813	\$44.0
2037	11,360	\$21.8	10,867	\$45.5
2038	11,421	\$22.0	10,922	\$46.3
2039	11,481	\$22.1	10,985	\$46.6

\* No toll increases beyond the September 8, 2009 (FY 2010) increase

\*\* Toll increases every 3<sup>rd</sup> year after the FY 2010 toll increase

\*\*\*Actual (unaudited)

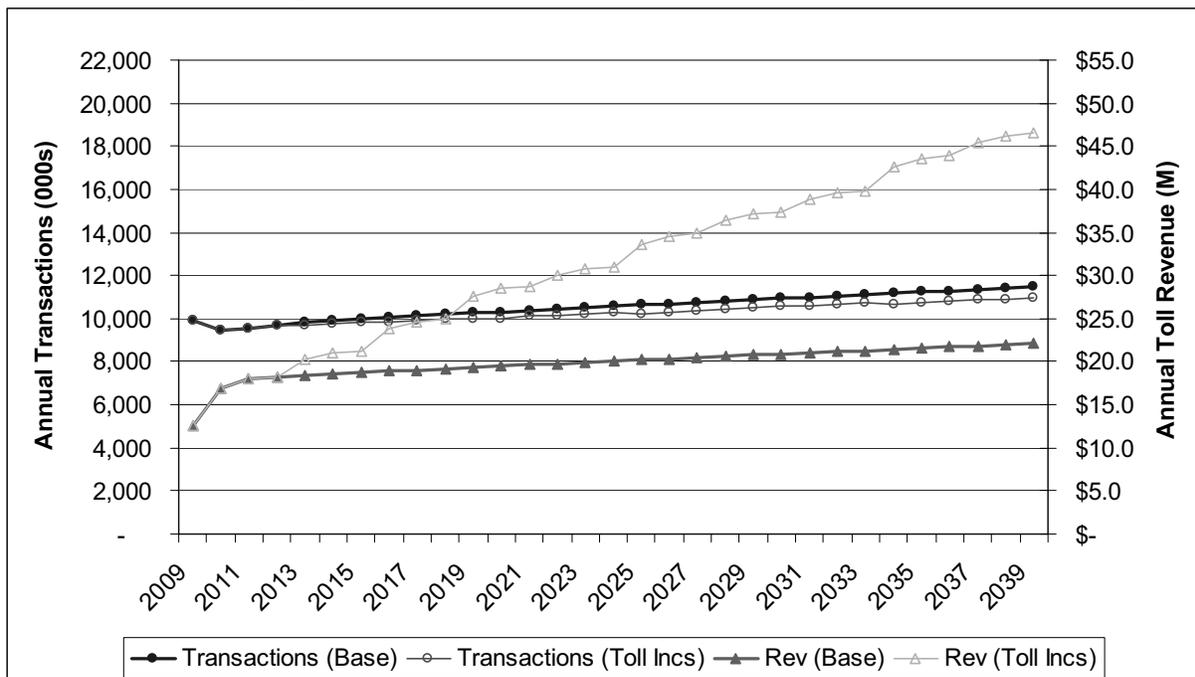
Jacobs is forecasting a decline in tolled traffic for the short-term, resulting from current economic conditions combined with the recent toll increase, with a return to FY 2009 levels not occurring until FY 2015 for the Base Case (FY 2018 for the toll increase case). It is anticipated that the economy and the September 8, 2009 toll increase will continue to be detrimental to transaction levels for FY10, with modest recovery thereafter.

Due to the implementation of the new toll schedule in September 2009, FY10 toll revenue is anticipated to grow 34 percent while the number of toll transactions decreases by 4.8 percent. For the following three years, as some of the traffic that initially left due to the toll increase returns, the average annual growth in transactions and toll revenue is 1.3 percent and 2.9 percent, respectively, assuming Base Case tolls. After this post-toll increase traffic rebound, annual traffic growth is projected to decline from 0.8 percent in 2014 to 0.5 percent in 2032 with the Base Case toll scenario.

For the scenario with toll increases every three years, between FY 2010 and FY 2013 the average annual growth in transactions and revenue is 0.8 percent and 6.3 percent, respectively, mainly due to the FY 2013 toll increase. By the 2030s revenue is expected to be double that of the Base Case scenario.

Figure 46 compares the forecasted toll transactions and revenue on the Newport Pell Bridge for the two different toll scenarios.

**Figure 46: Comparison Forecasted Traffic and Toll Revenues**



## 5.4 Sensitivity Analyses

Sensitivity analyses are typically conducted to test the effect of varying key model inputs on gross toll revenues. For the Newport Pell Bridge, three different types of sensitivity analysis were performed: one that changes background growth, one that assumes more or fewer vehicles will pay a discounted toll, and one that assumes different toll elasticity than the Base Case. Fiscal Year 2012 was chosen as the analysis year because (A) it has the same toll revenue for both the Base Case and toll increase scenarios, as the next toll increase in the toll increase scenario is in FY 2013, and (B) with recent events such as the implementation of E-ZPass, the September 2009 toll increase, and the economic downturn, plus the February 15, 2010 commencement of new commuter plans, the sensitivities are most pertinent to the short-term future forecasts.

### 5.4.1 Background Growth Rates

Background traffic growth rates on the Newport Pell Bridge, as stated earlier in this report, were based on historic correlations of car and truck traffic to GDP and IPI, respectively. Future growth rates combined the correlation factors with the *Blue Chip* forecasts of GDP and IPI. For the FY 2010 Base Case, car traffic was estimated to be flat and truck traffic down 4.6 percent from FY 2009. In FY 2011 and 2012, traffic background growth was expected to return to more normal long-term growth levels for this facility (0.6 to 0.7 percent for cars and 2.5 to 3.1 percent for trucks).

For the upside growth sensitivity case, the most optimistic GDP and IPI forecasts from the January 2010 *Blue Chip Economic Indicators* were used to develop background growth rates. The top ten forecasts for GDP averaged 3.4% growth for 2010 and 3.9% for 2011, while the top ten IPI forecasts averaged 5.8 for 2010 and 6.6 for 2011. The upside background growth rates developed from these numbers were 0.3 to 0.8 percent annual growth for car traffic. For truck traffic, a 2.9 percent loss was used for the upside case in 2010 followed by annual growth of 4.2 and 4.9 percent in 2011 and 2012, respectively.

For the downside case, it was assumed that there would be annual traffic loss similar to what the Newport Pell Bridge experienced between 2005 and 2008: a 0.7 percent annual loss in car traffic and a 0.6% percent annual loss in truck traffic (note that the FY 2010 toll increase would cause additional traffic loss).

Table 42 shows the Base Case, upside and downside background growth assumptions and their resulting gross toll revenue estimates. Assuming the small negative growth rates at the Newport Pell Bridge will continue results in a 2012 annual toll revenue number of \$17.5 million, 3.6 percent less than the Base Case toll revenues, while the higher growth assumptions result in 2012 toll revenue of \$18.3 million, 0.9 percent above Base Case toll revenues.

**Table 42: Background Growth Sensitivity**

Case	Background Growth Assumptions				Resulting 2012 Annual Revenue (Ms)	Difference from Base Case
		FY 2010	FY 2011	FY 2012		
Base Case	Car	0.00%	0.60%	0.70%	\$ 18.1	
	Truck	-4.60%	2.50%	3.10%		
Upside Sensitivity: "Higher Growth"	Car	0.30%	0.70%	0.80%	\$ 18.3	0.9%
	Truck	-2.90%	4.20%	4.90%		
Downside Sensitivity: "Lower Growth"	Car	-0.70%	-0.70%	-0.70%	\$ 17.5	-3.6%
	Truck	-4.60%	-0.60%	-0.60%		

### 5.4.2 Discounted Traffic Share

As there is a large disparity between full-price and discounted toll rates, accuracy in toll revenue forecasting is highly dependent on estimating the correct share of traffic that will be paying the discounted rate. For this sensitivity test, Jacobs varied the overall E-ZPass market share within reasonable limits, and made high and low estimates of the number of eligible full-price E-ZPass trips that would switch to a RI E-ZPass discount plan to save money. The details of the assumptions and the resulting revenues are shown in Table 43. Combining all the low discount share assumptions, \$19.6 million in toll revenues is estimated for FY 2012, 7.8% above the base case forecast. A combination of all the high discounted trip share assumptions produces an estimated \$16.2 in toll revenues, 10.7% below the Base Case.

**Table 43: Discounted Traffic Share Sensitivity**

Case		Estimated 2012 E-ZPass Market Share	Eligible Trips Switching to \$0.91 Commuter Plan, FY10		Frequent Users with RI Addresses Switching to Resident Plan, FY 10		Eligible Away E-Zpass Customers Joining New RI Discount Plans*	Resulting 2012 Annual Revenue (Ms)	Difference from Base Case
Base Case	Car	79.4%	Away	10.0%	Away	20.0%	2% to 75% based on trip frequency	\$ 18.1	
	Truck	80.9%	Home	50.0%	Home	50.0%			
Upside Sensitivity: "Low Discounted Trip Share"	Car	75.0%	Away	5.0%	Away	10.0%	0% to 30% based on trip frequency	\$ 19.6	7.8%
	Truck	75.0%	Home	30.0%	Home	30.0%			
Downside Sensitivity: "High Discounted Trip Share"	Car	85.0%	Away	25.0%	Away	50.0%	5% to 90% based on trip frequency	\$ 16.2	-10.7%
	Truck	85.0%	Home	90.0%	Home	90.0%			

\* Requires opening a RI E-Zpass account

### 5.4.3 Toll Elasticity

As seen previously in Table 40, the Base Case toll elasticities range from -0.08 for E-ZPass passenger cars to -0.21 for trucks paying with cash. For the upside sensitivity case, Jacobs cut the toll elasticity in half, meaning that half as much traffic would be lost due to a toll increase. For the downside sensitivity, the toll elasticities were doubled. Results are as shown in Table 44. Halving

the toll elasticity results in a 2012 annual toll revenue number of \$18.9 million, 3.9 percent more than the Base Case toll revenues, while doubling the toll elasticity results in 2012 toll revenue of \$17.0 million, 6.2 percent less than Base Case toll revenues.

**Table 44: Toll Elasticity Sensitivity**

Case	Toll Elasticity Assumptions				Resulting 2012 Annual Revenue (Ms)	Difference from Base Case
	2-Axle Cash / 2-Axle Trucks	Car E-ZPass	3+ Axle Cash	3+ Axle E-ZPass		
Base Case	-0.15	-0.08	-0.21	-0.15	\$ 18.1	
Upside Sensitivity: "Low Toll Elasticity:	-0.08	-0.04	-0.11	-0.08	\$ 18.9	3.9%
Downside Sensitivity: "High Toll Elasticity"	-0.30	-0.16	-0.42	-0.30	\$ 17.0	-6.2%

## 6. Operations and Maintenance Forecasts

This section presents a review of historical and projected RITBA operational expenditures consisting of personnel services costs, insurance costs, repairs and maintenance costs, E-ZPass costs, and other costs for both the Newport Pell and Mount Hope bridges.

### 6.1 Historical O&M

Historical RITBA operating expenditures are shown below in Table 45.

**Table 45: Historical RITBA Operating Expenditures, FY 2000-2009 (in thousands)**

	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Personnel services	\$ 1,395	\$ 1,544	\$ 1,461	\$ 1,556	\$ 1,597	\$ 1,771	\$ 1,671	\$ 1,947	\$ 1,918	\$ 2,548
Insurance	347	352	648	1,011	1,273	1,185	991	1,464	1,281	1,254
Repairs and maintenance	-	-	149	137	101	163	128	396	399	453
E-ZPass	-	-	-	-	-	-	-	-	-	*
Other	760	1,228	1,168	1,022	1,320	1,592	1,258	567	499	1,485
Total Operating expenditures	\$ 2,503	\$ 3,124	\$ 3,426	\$ 3,725	\$ 4,290	\$ 4,711	\$ 4,049	\$ 4,374	\$ 4,098	\$ 5,739

*Note: Excludes depreciation and environmental remediation as shown in financial statements; excludes R&R and General Fund expenses*

*\* 2009 E-ZPass expenditures have not been separated out; they are included under the other categories. Transponder costs are passed on to the customer and have not been included above.*

The following describes the expense items included under each O&M category.

- **Personnel Services Costs**

Personnel services costs include salaries, wages, employee benefits, and payroll taxes for all employees, such as federal and state taxes, health and welfare benefits, employee insurance, and pension contributions. All administrative, operations, and maintenance staff including seasonal and part-time labor are projected to increase annually over the forecast period.

- **Insurance Costs**

Insurance costs include all insurance policies held by the Authority covering the bridges, buildings, property, equipment, as well as other business-related policies.

- **Repairs and Maintenance Costs**

Maintenance and repair costs covered under this heading include routine maintenance activities conducted by RITBA personnel for projects not included in the Board-approved Ten Year Renewal and Replacement Plan. Maintenance paid for out of the General Fund is also not included. RITBA has developed ongoing preventative maintenance programs for both the Newport Pell and Mount Hope Bridges which are proactive in ensuring safety, structural integrity, security and aesthetics of the facilities. These programs have provided an

efficient method and a successful process through which these Authority assets are maintained over time.

General maintenance items budgeted for on an annual basis and carried out by Authority staff include such items as preventive maintenance of bridge bearings, repair of potholes on approach roadways, routine inspection of bridge expansion and contraction joints, toll plaza snow removal, painting of bridge rails, signage maintenance on bridges, etc., as well as maintenance expenses for RITBA-owned vehicles and equipment. The Authority contracts with an electrical contractor for routine electrical work which is also included in this category, as are maintenance supplies, spare parts, and uniforms.

- **E-ZPass Costs**

E-ZPass costs mainly consist of transaction-based processing costs and system maintenance costs, both of which are provided to the Authority through outsourced contracts. The Authority entered into a three-year renewable contract with Affiliated Computer Services (ACS) to process E-ZPass transactions, open and close accounts, maintain the account information database, distribute transponders, resolve disputes and receive and post prepaid toll revenue. The Authority also entered into a contract with Caseta Technologies to implement all of the electronic toll system and to provide ongoing maintenance services into FY 2012. In addition, the Authority must also pay credit card fees and the cost to purchase E-ZPass transponders. The cost of the transponder, however, is passed on to the customer (\$20.95 for a typical transponder). Other E-ZPass costs include E-ZPass IAG Subscription fees, trailer expenses to house customer service staff, and postage costs.

- **Other Costs**

Other costs mainly consist of utilities, professional services costs, and other miscellaneous expenses. Utility costs include electricity, water, telephone, and general office consumables.

Professional services outsourced by the RITBA include consulting contracts for legal, audit, insurance, marketing, financial, and consulting engineering support. Trustee fees and advertising costs are also included, as is an allocation to the Rhode Island State Police for enforcement.

Other miscellaneous expenses include travel and meeting expenses, dues and subscription fees, and various office supplies and other miscellaneous expenses. Marketing contributions and Host Community fees are also included in this category.

As seen in Table 45, historical operating costs have generally grown reasonably over time. Significant increases did occur, however, from 2008 to 2009, mostly driven by the implementation of the E-ZPass system. Personnel increases were necessary for customer service activities and other

operational requirements. Employee benefits also increased by more than 20 percent over 2008 levels. Professional services expenses were higher in 2009 due to labor contract renegotiations and in response to the class action suit related to the local discount program.

## **6.2 Forecasted O&M**

The recent implementation of E-ZPass has increased overall O&M expenditures; these expenditures will be carried out into the future. Table 46 presents Jacobs' estimates of future E-ZPass costs; it should be noted that while the number of transactions differs between the Base Case and toll increase scenarios analyzed in this study, there is material difference in O&M costs between the two.

The O&M costs are expected to decrease from \$2.2 million in FY 2010 to \$1.5 million in 2013 due to a reduction in transponder purchases and the reduction in ACS transaction processing costs. RITBA currently pays ACS \$0.134 per E-ZPass transaction, but with the terms of the contract this will be reduced to \$0.093 by 2013, and further reduced to \$0.018 should the number of E-ZPass transactions reach 10 million in a year (note: Newport Pell Bridge E-ZPass transactions are not expected to reach this number for any year in the 30-year forecast).

As E-ZPass customers must purchase their own tag (typically \$20.95), RITBA's transponder costs are expected to equal their transponder revenues (see "Net Revenues" on page 91). Table 46 also shows that every eight years starting in 2017 there is a "bump" in transponder costs; these include replacement costs due to the estimated eight-year life span of an E-ZPass tag.

Total forecasted E-ZPass costs are expected to increase from \$1.5 million in FY 2013 to \$1.8 million in FY 2020 to \$3.2M in FY 2039.

**Table 46: Forecast of E-ZPass Costs (in thousands)**

Fiscal Year	Transaction Processing	Credit Card Fees	Toll System Maintenance	Transponder Costs	Other E-ZPass Costs*	Total E-ZPass
2010	\$973	\$144	\$210	\$758	\$109	\$2,194
2011	\$987	\$148	\$210	\$492	\$112	\$1,949
2012	\$959	\$152	\$216	\$259	\$115	\$1,701
2013	\$720	\$157	\$216	\$264	\$118	\$1,475
2014	\$727	\$161	\$216	\$269	\$121	\$1,494
2015	\$735	\$166	\$222	\$275	\$124	\$1,522
2016	\$753	\$171	\$222	\$281	\$127	\$1,553
2017	\$780	\$176	\$222	\$1,554	\$130	\$2,862
2018	\$810	\$181	\$229	\$869	\$133	\$2,222
2019	\$831	\$186	\$235	\$580	\$136	\$1,969
2020	\$861	\$192	\$242	\$348	\$140	\$1,783
2021	\$894	\$197	\$249	\$354	\$143	\$1,838
2022	\$927	\$203	\$257	\$361	\$147	\$1,894
2023	\$957	\$209	\$264	\$369	\$151	\$1,950
2024	\$991	\$215	\$272	\$376	\$155	\$2,008
2025	\$1,016	\$221	\$279	\$1,658	\$159	\$3,333
2026	\$1,051	\$228	\$288	\$972	\$163	\$2,701
2027	\$1,090	\$234	\$296	\$683	\$167	\$2,470
2028	\$1,129	\$241	\$305	\$451	\$171	\$2,297
2029	\$1,166	\$248	\$313	\$461	\$176	\$2,364
2030	\$1,207	\$255	\$322	\$470	\$180	\$2,435
2031	\$1,249	\$262	\$332	\$480	\$185	\$2,508
2032	\$1,290	\$270	\$341	\$490	\$190	\$2,581
2033	\$1,335	\$278	\$351	\$1,780	\$195	\$3,939
2034	\$1,370	\$286	\$362	\$1,092	\$200	\$3,310
2035	\$1,417	\$294	\$372	\$805	\$205	\$3,094
2036	\$1,469	\$303	\$383	\$574	\$211	\$2,939
2037	\$1,521	\$312	\$394	\$587	\$216	\$3,030
2038	\$1,571	\$321	\$405	\$598	\$222	\$3,117
2039	\$1,626	\$330	\$417	\$610	\$228	\$3,211

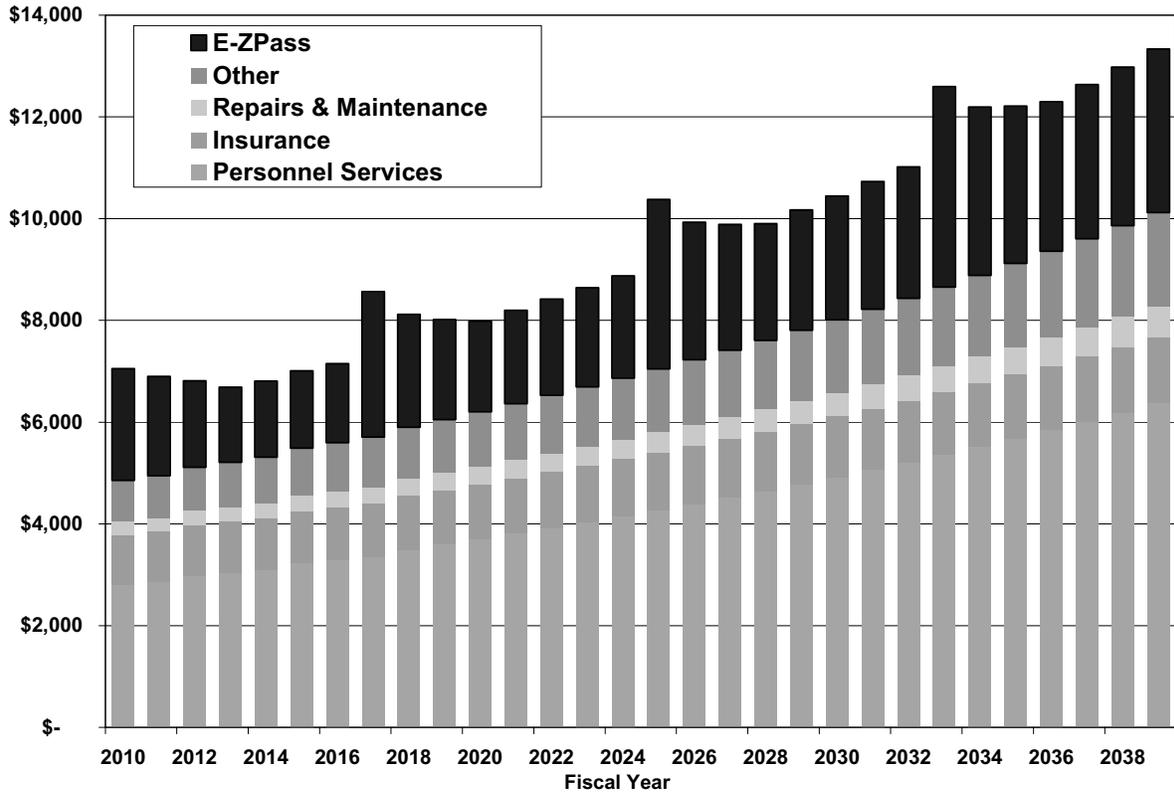
\* IAG Subscription, Trailer, Postage

Table 47 and Figure 47 present Jacobs' forecasts of overall operations and maintenance expenditures over the next thirty years. As seen in the table and the figure, the forecasted operations and maintenance expenditures vary from about \$7.0 million in FY 2010 to \$6.7 million in FY 2013, \$8.0 million in FY 2020, and \$13.3 million in FY 2039.

**Table 47: Forecasted O&M Expenditures (in thousands)**

<b>Fiscal Year</b>	<b>Personnel Services</b>	<b>Insurance</b>	<b>Repairs and Maintenance</b>	<b>Other</b>	<b>E-ZPass</b>	<b>Total Operating Costs</b>
2010	\$2,806	\$980	\$263	\$805	\$2,194	\$7,048
2011	\$2,860	\$990	\$270	\$829	\$1,949	\$6,897
2012	\$2,981	\$999	\$278	\$853	\$1,701	\$6,812
2013	\$3,037	\$1,009	\$286	\$877	\$1,475	\$6,685
2014	\$3,095	\$1,020	\$294	\$903	\$1,494	\$6,806
2015	\$3,227	\$1,030	\$303	\$929	\$1,522	\$7,010
2016	\$3,288	\$1,040	\$312	\$956	\$1,553	\$7,149
2017	\$3,350	\$1,050	\$321	\$984	\$2,862	\$8,566
2018	\$3,493	\$1,061	\$330	\$1,012	\$2,222	\$8,118
2019	\$3,594	\$1,072	\$340	\$1,042	\$1,969	\$8,016
2020	\$3,699	\$1,082	\$349	\$1,072	\$1,783	\$7,985
2021	\$3,806	\$1,093	\$359	\$1,103	\$1,838	\$8,199
2022	\$3,916	\$1,104	\$370	\$1,135	\$1,894	\$8,419
2023	\$4,030	\$1,115	\$381	\$1,168	\$1,950	\$8,643
2024	\$4,147	\$1,126	\$392	\$1,202	\$2,008	\$8,875
2025	\$4,267	\$1,137	\$403	\$1,237	\$3,333	\$10,377
2026	\$4,391	\$1,149	\$415	\$1,272	\$2,701	\$9,928
2027	\$4,518	\$1,160	\$427	\$1,309	\$2,470	\$9,884
2028	\$4,649	\$1,172	\$439	\$1,347	\$2,297	\$9,904
2029	\$4,784	\$1,184	\$452	\$1,386	\$2,364	\$10,170
2030	\$4,923	\$1,196	\$465	\$1,427	\$2,435	\$10,445
2031	\$5,065	\$1,207	\$478	\$1,468	\$2,508	\$10,727
2032	\$5,212	\$1,220	\$492	\$1,511	\$2,581	\$11,016
2033	\$5,363	\$1,232	\$507	\$1,554	\$3,939	\$12,595
2034	\$5,519	\$1,244	\$521	\$1,599	\$3,310	\$12,193
2035	\$5,679	\$1,256	\$536	\$1,646	\$3,094	\$12,212
2036	\$5,844	\$1,269	\$552	\$1,693	\$2,939	\$12,297
2037	\$6,013	\$1,282	\$568	\$1,743	\$3,030	\$12,635
2038	\$6,188	\$1,295	\$584	\$1,793	\$3,117	\$12,977
2039	\$6,367	\$1,308	\$601	\$1,845	\$3,211	\$13,332

Figure 47: Forecasted O&M Expenditures



## 7. Net Revenues

Table 48 calculates, for the Base Case (i.e., no toll increase) scenario, the net revenues from the total revenues (tolls plus transponders) and O&M costs. Net revenues are expected to increase from \$10.6 million in 2010 to more than \$12.0 million in 2017, decreasing thereafter to \$11.8 million in 2020 and \$9.4 million in 2039.

**Table 48: Net Revenue Forecasts in millions, Base Case (No Future Toll Increases)**

Fiscal Year	Toll Revenue	Transponder Revenue	Total Revenue	Total Operating Costs	Net Revenue
2010	\$16.9	\$0.8	\$17.7	\$7.0	\$10.6
2011	\$18.0	\$0.5	\$18.5	\$6.9	\$11.6
2012	\$18.1	\$0.3	\$18.4	\$6.8	\$11.6
2013	\$18.4	\$0.3	\$18.7	\$6.7	\$12.0
2014	\$18.5	\$0.3	\$18.8	\$6.8	\$12.0
2015	\$18.7	\$0.3	\$19.0	\$7.0	\$12.0
2016	\$18.9	\$0.3	\$19.1	\$7.1	\$12.0
2017	\$19.0	\$1.6	\$20.6	\$8.6	\$12.0
2018	\$19.2	\$0.9	\$20.0	\$8.1	\$11.9
2019	\$19.3	\$0.6	\$19.9	\$8.0	\$11.9
2020	\$19.5	\$0.3	\$19.8	\$8.0	\$11.8
2021	\$19.6	\$0.4	\$20.0	\$8.2	\$11.8
2022	\$19.8	\$0.4	\$20.1	\$8.4	\$11.7
2023	\$19.9	\$0.4	\$20.3	\$8.6	\$11.6
2024	\$20.1	\$0.4	\$20.4	\$8.9	\$11.6
2025	\$20.2	\$1.7	\$21.9	\$10.4	\$11.5
2026	\$20.3	\$1.0	\$21.3	\$9.9	\$11.4
2027	\$20.5	\$0.7	\$21.2	\$9.9	\$11.3
2028	\$20.6	\$0.5	\$21.1	\$9.9	\$11.2
2029	\$20.7	\$0.5	\$21.2	\$10.2	\$11.0
2030	\$20.9	\$0.5	\$21.4	\$10.4	\$10.9
2031	\$21.0	\$0.5	\$21.5	\$10.7	\$10.8
2032	\$21.2	\$0.5	\$21.6	\$11.0	\$10.6
2033	\$21.3	\$1.8	\$23.1	\$12.6	\$10.5
2034	\$21.4	\$1.1	\$22.5	\$12.2	\$10.3
2035	\$21.6	\$0.8	\$22.4	\$12.2	\$10.2
2036	\$21.7	\$0.6	\$22.3	\$12.3	\$10.0
2037	\$21.8	\$0.6	\$22.4	\$12.6	\$9.8
2038	\$22.0	\$0.6	\$22.6	\$13.0	\$9.6
2039	\$22.1	\$0.6	\$22.7	\$13.3	\$9.4

Net revenues for the toll increase scenario are shown in Table 49. Net revenues are expected to increase from \$10.6 million in 2010 to \$20.8 million in 2020 to \$33.8 million in 2039 with the toll increase scenario.

**Table 49: Net Revenue Forecasts in millions, Toll Increase Scenario**

<b>Fiscal Year</b>	<b>Toll Revenue</b>	<b>Transponder Revenue</b>	<b>Total Revenue</b>	<b>Total Operating Costs</b>	<b>Net Revenue</b>
2010	\$16.9	\$0.8	\$17.7	\$7.0	\$10.6
2011	\$18.0	\$0.5	\$18.5	\$6.9	\$11.6
2012	\$18.1	\$0.3	\$18.4	\$6.8	\$11.6
2013	\$20.3	\$0.3	\$20.6	\$6.7	\$13.9
2014	\$21.0	\$0.3	\$21.3	\$6.8	\$14.5
2015	\$21.3	\$0.3	\$21.5	\$7.0	\$14.5
2016	\$23.8	\$0.3	\$24.1	\$7.1	\$16.9
2017	\$24.7	\$1.6	\$26.2	\$8.6	\$17.7
2018	\$24.9	\$0.9	\$25.8	\$8.1	\$17.7
2019	\$27.5	\$0.6	\$28.1	\$8.0	\$20.1
2020	\$28.4	\$0.3	\$28.8	\$8.0	\$20.8
2021	\$28.7	\$0.4	\$29.1	\$8.2	\$20.9
2022	\$30.1	\$0.4	\$30.5	\$8.4	\$22.0
2023	\$30.8	\$0.4	\$31.2	\$8.6	\$22.5
2024	\$31.0	\$0.4	\$31.4	\$8.9	\$22.5
2025	\$33.7	\$1.7	\$35.3	\$10.4	\$25.0
2026	\$34.6	\$1.0	\$35.6	\$9.9	\$25.7
2027	\$34.9	\$0.7	\$35.6	\$9.9	\$25.7
2028	\$36.4	\$0.5	\$36.8	\$9.9	\$26.9
2029	\$37.1	\$0.5	\$37.5	\$10.2	\$27.4
2030	\$37.3	\$0.5	\$37.8	\$10.4	\$27.4
2031	\$38.8	\$0.5	\$39.3	\$10.7	\$28.5
2032	\$39.5	\$0.5	\$40.0	\$11.0	\$29.0
2033	\$39.8	\$1.8	\$41.6	\$12.6	\$29.0
2034	\$42.6	\$1.1	\$43.7	\$12.2	\$31.5
2035	\$43.6	\$0.8	\$44.4	\$12.2	\$32.2
2036	\$44.0	\$0.6	\$44.5	\$12.3	\$32.2
2037	\$45.5	\$0.6	\$46.1	\$12.6	\$33.4
2038	\$46.3	\$0.6	\$46.9	\$13.0	\$33.9
2039	\$46.6	\$0.6	\$47.2	\$13.3	\$33.8

## 8. Renewal and Replacement

In addition to general maintenance items described in the previous section, the Authority conducts major maintenance items for both bridges through long range capital planning under the Renewal and Replacement (R&R) program. Major work items such as bridge painting, bridge inspection, structural steel repairs, concrete deck repairs, main cable inspection, testing and repairs, substructure repairs, etc. are budgeted for and implemented at appropriate times as part of the Renewal and Replacement program, and are therefore not included in the forecast of operating expenditures.

The RITBA Board has adopted its Ten Year Renewal and Replacement Plan to maintain the safety, security, and operational effectiveness of both the Newport Pell and Mount Hope bridges. The Ten Year Plan approved by the Board on September 23, 2009 identifies \$210 million of major maintenance expenditures needed to extend the useful life of both bridges. Nationally-recognized consulting engineering companies have completed the identification of projects included in both the \$162 million Newport/Pell Bridge and \$48 million Mount Hope Bridge R&R plans. Table 50 breaks out the forecasted R&R expenses by bridge. Jacobs reviewed these forecasts and found them to be reasonable.

**Table 50: Board-Approved R&R Expenditures (in thousands)**

Fiscal Year	Newport Pell Bridge	Mount Hope Bridge	Total
2010	\$ 10,885	\$ 5,816	\$ 16,701
2011	\$ 20,630	\$ 7,245	\$ 27,875
2012	\$ 22,630	\$ 3,696	\$ 26,326
2013	\$ 20,590	\$ 2,278	\$ 22,868
2014	\$ 19,215	\$ 11,011	\$ 30,226
2015	\$ 25,020	\$ 8,512	\$ 33,532
2016	\$ 21,755	\$ 4,423	\$ 26,178
2017	\$ 4,485	\$ 4,058	\$ 8,543
2018	\$ 9,590	\$ 496	\$ 10,086
2019	\$ 6,990	\$ 285	\$ 7,275
Total	\$ 161,790	\$ 47,820	\$ 209,610

## 9. Limits

It is Jacobs' opinion that the traffic and gross toll revenue estimates provided herein are reasonable and that they have been prepared in accordance with accepted industry-wide practice. However, given the uncertainties within the current economic climate, it is important to note the following assumptions which, in our opinion, are reasonable:

- This report presents the results of Jacobs' consideration of the information available as of the date hereof and the application of our experience and professional judgment to that information. It is not a guarantee of any future events or trends.
- The traffic and gross toll revenue estimates will be subject to future economic and social conditions, demographic developments and regional transportation construction activities that cannot be predicted with certainty.
- The estimates contained in this report, while presented with numeric specificity, are based on a number of estimates and assumptions which, though considered reasonable to us, are inherently subject to economic and competitive uncertainties and contingencies, most of which are beyond the control of RITBA and cannot be predicted with certainty. In many instances, a broad range of alternative assumptions could be considered reasonable. Changes in the assumptions used could result in material differences in estimated outcomes.
- Jacobs' traffic and gross toll revenue estimations only represent our best judgment and we do not warrant or represent that the actual gross toll revenues will not vary from our estimates.
- We do not express any opinion on the following items: socioeconomic and demographic forecasts, proposed land use development projects and potential improvements to the regional transportation network.
- The standards of operation and maintenance on all of the system will be maintained as planned within the business rules and practices.
- No other competing projects, tolled or non-tolled are assumed to be constructed or significantly improved in the project corridor during the project period, as to negatively impact Newport Pell Bridge traffic, except those identified within this report.
- Major highway improvements that are currently underway or fully funded will be completed as planned.
- The system will be well maintained, efficiently operated, and effectively signed to encourage maximum usage.
- No reduced growth initiatives or related controls that would significantly inhibit normal development patterns will be introduced during the estimate period.
- There will be no future serious protracted recession during the estimate period.

- There will be no protracted fuel shortage during the estimate period.
- No local, regional, or national emergency will arise that will abnormally restrict the use of motor vehicles.

In Jacobs' opinion, the assumptions underlying the projections provide a reasonable basis for the revenue projections and operating expenses. However, any financial projection is subject to uncertainties. Inevitably, some assumptions used to develop the projections will not be realized, and unanticipated events and circumstances may occur. There are likely to be differences between the projections and actual results, and those differences may be material. Because of these uncertainties, Jacobs makes no guaranty or warranty with respect to the projections disclosed in this Study.

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# 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN MOUNT HOPE AND NEWPORT/PELL BRIDGES NARRATIVE SUMMARY



Prepared For:

Rhode Island Turnpike and Bridge Authority  
Jamestown, Rhode Island

Prepared By:  
PB Americas, Inc.

September, 2009

# RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN

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# **RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN NEWPORT/PELL BRIDGE**

## **INTRODUCTION**

The Rhode Island Turnpike and Bridge Authority (RITBA) was created in 1954 by the Rhode Island General Assembly with mandates to construct, operate, and maintain the Newport/Pell Bridge (“NP”); construct a Turnpike; acquire, operate, and maintain the Mount Hope Bridge (“MH”); and, to construct “additional facilities” thereafter authorized by law. The authority is charged with reviewing its fiscal health including projected revenue, operating, maintenance and renewal costs and taking action to ensure that revenue is provided to properly and safely maintain and operate its assets.

The RITBA has historically adopted a Ten Year Renewal and Replacement Plan (TYP) for the NP and the MH on an annual basis and has included estimated costs for improvements to the bridge structures as well as to the toll plaza and administration building.

The RITBA has a program of structural integrity inspections of the NP and MH bridges. These inspections are performed in compliance with National Bridge Inspection Standards (NBIS) that require biennial inspections of bridges. Repair recommendations are made based on the findings of the inspections and these repairs become the basis for projects included in the TYP. The inspections include hands-on inspection of fracture critical members (members that are in tension and whose failure would result in a partial or total collapse of a span). Since a major portion of the costs of an inspection of a long span bridge is in the access equipment and lane closures, RITBA programs the inspections in a manner to meet the NBIS biennial inspection requirements and focus a particular inspection to obtain the detailed information required to prepare repair plans. For instance, the 2008 inspection of the NP focused on the main spans of the bridge in order to obtain detailed information to prepare repair plans for Contract 09-1 (reflected in the TYP under Item 12).

Based on the most recent inspections of the bridges, the NP and MH bridges are both generally in satisfactory condition and functioning as designed. Specific elements of the bridges require repairs to maintain the condition rating of satisfactory. These repairs that are required to maintain satisfactory condition are shown in this narrative and their estimated costs are included in the TYP.

This document is a brief narrative of the items in the RITBA September 2009 Board Approved Ten Year Renewal and Replacement Plan for the Newport/Pell Bridge and the Mount Hope Bridge. The intent of this document is to provide an overview of the issues associated with each item.

Further information on issues discussed herein are available in contract documents, RITBA correspondence, inspection reports, or studies.

A copy of the September 2009 Board Approved Ten Year Renewal and Replacement Plan that is the basis of this document follows the narrative description sections.

## RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN NEWPORT/PELL BRIDGE

### GENERAL DESCRIPTION OF THE BRIDGES



The Newport/Pell Bridge is an 11,248 foot long structure over the east passage of Narragansett Bay. The main channel is spanned by the 1,600 foot long main suspended span flanked by two 687 foot long side spans. The bridge carries four lanes of vehicular traffic of Rhode Island State Route 138, between Jamestown on Conanicut Island and Newport on Aquidneck Island. The bridge was opened to traffic on June 28, 1969.

The Newport/Pell Bridge consists of five structural segments: steel multi-stringer spans, prestressed concrete beam spans, plate girder spans, deck truss spans and the suspension bridge spans. The main suspended span provides a maximum vertical clearance of 205.8 feet above mean high water and a 1000 foot wide navigation channel. The bridge superstructure is supported on reinforced concrete piers, abutments, and anchorages, which are founded on caissons, piles and spread footings. The towers for the suspension spans are steel, founded on reinforced concrete caissons and piles.



The Mount Hope Bridge, designed in 1927 by Robinson and Steinman, and built under their supervision in the following two years, is a prize-winning suspension bridge. The Mount Hope Bridge carries two lanes of traffic for Rhode Island Route 114 over the Mount Hope Bay connecting the towns of Bristol and Portsmouth, Rhode Island. The superstructure consists of a three span suspension bridge, with a main span of 1,200 feet, supported by steel towers. The suspension span is flanked by a total of 28 two-girder system approach spans supported by reinforced concrete piers and steel bents. The total length of the structure from abutment to abutment is about 4,858 feet.

# RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN NEWPORT/PELL BRIDGE

## 1.0 BRIDGE DECK EVALUATION AND FULL DEPTH REPLACEMENT



**Photo No. NP 1.1**

**Description:** A view of the westbound traffic on the main span roadway.

and repaired as part of a preventive maintenance program (TYP Items 2, 3, 4, 5 and 7). The evaluation of the concrete deck is a more in-depth study of the deck condition including material testing such as taking samples for chloride ion levels (salt intrusion). The material testing is compared to previous evaluations (performed in 1989, 1991, 1999 and 2008) and the findings of the in-depth evaluation is used to identify areas requiring rehabilitation and repair and focus the work associated with TYP Items 2, 3, 4, 5 and 7. The most recent evaluation in 2008 was used to identify the scope of work for Contract 08-4 which included

The concrete roadway deck experiences direct contact with car, truck, and oversized permit loads, storm runoff, seasonal deicing salts, and the wear associated with each. The roadway is also the bridge element that all revenue customers contact directly. The aesthetic appearance of the roadway and the smoothness and comfort of the ride have an immediate impact on these end users.

The original concrete cast-in-place roadway deck is over 40 years old and has continually been inspected and repaired as part of a preventive maintenance program (TYP Items 2, 3, 4, 5 and 7). The evaluation of the concrete deck is a more in-depth study of the deck condition including material testing such as taking samples for chloride ion levels (salt intrusion). The material testing is compared to previous evaluations (performed in 1989, 1991, 1999 and 2008) and the findings of the in-depth evaluation is used to identify areas requiring rehabilitation and repair and focus the work associated with TYP Items 2, 3, 4, 5 and 7. The most recent evaluation in 2008 was used to identify the scope of work for Contract 08-4 which included deck repairs and sealing. The next evaluation is scheduled for 2015.



**Photo No. NP 1.2**

**Description:** Span 5 West Westbound Travel Lane. Concrete shows previous repairs and new rupture at expansion joint.

The roadway is evaluated using a variety of methods that include visual inspection to identify uneven or cracked pavement, mechanical sounding of the deck with a hammer to locate hollow areas below the roadway surface, and laboratory analysis of concrete samples to determine the amount of chloride (deicing salt) intrusion into the deck. Chloride intrusion into the deck can initiate corrosion of the internal steel reinforcing bars and cause them to expand and crack the concrete. Both visual and mechanical monitoring is performed from beneath the deck as well.

**RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN  
NEWPORT/PELL BRIDGE**

Item 1 also includes Full Depth Deck Replacement. Based on the rigorous evaluation, sealing, and repair program adopted by the RITBA to prolong the life of the deck, the first planned Full Depth Replacement of a portion of the bridge deck is not expected to occur within the ten year horizon of the 2009 TYP.

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**2.0 BRIDGE DECK SEALING (CONCRETE)**



**Photo No. NP 2.1**

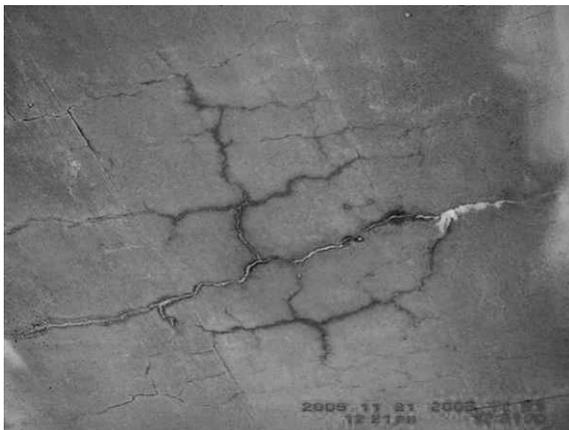
**Description:** *West Side Span, Panel 33 West. A pop-out (spall) on the bottom surface of the concrete deck with exposed reinforcing steel.*

moisture and deicing salts cause corrosion on the reinforcing steel that is embedded in the concrete. The surface layers of the steel expand as they rust. As the steel expands it exerts a force that causes the concrete to separate, creating a void within the pavement or causing the surface concrete to fail, exposing the reinforcing steel (see Photo No. 2.1). These voids are enlarged during the winter season as moisture fills the void and expands when the water freezes.

Protecting the bridge deck with a concrete sealer that has been tested and approved by the highway industry is a routine maintenance task that protects and extends the life of the deck.

The deck of the Newport/Pell Bridge was cleaned and coated with a sealer in 1988, 1999 and most recently under Contract 08-4 in the summer of 2008.

The primary function of the sealer is to form a barrier that repels moisture and limits chloride intrusion (deicing salts). Both



**Photo No. NP 2.2**

**Description:** *East Side Span. Crack formation on the bottom surface of the concrete deck with efflorescence (white salts in the cracks).*

Sealers are typically expected to be effective for approximately five to seven years and the Ten Year Plan includes the cleaning of the deck and application of sealer at five year intervals. This approach is expected to prolong the service life of the deck, reducing costs for rehabilitation or replacement of the deck and reduce repair costs associated with spalling concrete.

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**3.0 BRIDGE DECK SLAB PARTIAL DEPTH REHABILITATION (HYDRODEMOLITION)**



**Photo No. NP 3.1**

**Description:** *Hydro-demolition of the upper three inches of the roadway surface for the partial depth pavement replacement in the west approach spans.*

Partial depth replacement of the concrete deck is an economic alternative to replacing the entire deck. The costs and time when lanes are out of service for revenue customers are significantly reduced.

The lower portion of the deck must be in relatively good condition to be a suitable candidate for this procedure. If the intrusion of chlorides (de-icing salts) are of highest concentration in the top several inches of concrete, this concrete can be removed and replaced with a high density, lower permeability concrete. This approach removes chlorides that would continue to migrate through

the deck, causing damage to the full depth of the deck, and provides a less permeable top layer to prevent future intrusion of chlorides.

When high concentrations of deicing salts are found throughout the concrete, from the top surface to the bottom surface of the roadway deck, the only suitable option is full depth deck replacement.

In 2000, RITBA performed a partial deck replacement of 800 feet of roadway deck on the west approach of the Newport/Pell Bridge.



**Photo No. NP 3.2**

**Description:** *Preparing reinforcing steel for partial depth replacement of the concrete pavement in the west approach spans. The concrete has been removed to a depth of about 3 inches (below the top level of reinforcing bar).*

The deck evaluation (TYP Item 1) including testing of concrete samples from other deck locations is used to identify priority areas for partial depth and/or full depth replacement. The 2009 TYP includes an assumption (based on the findings of the 2008 Deck Evaluation) that specific sections of the deck will be rehabilitated by partial depth replacement in years 2014 through 2016.

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**4.0 BRIDGE DECK PATCHING: ROADWAY/APPROACHES (CONCRETE)**



**Photo No. NP 4.1**

**Description:** *Twelve inch diameter spall in the pavement surface.*

Roadway concrete deck patch repair is an annual component of the Newport/Pell Bridge maintenance schedule.

This program helps maintain the structural integrity of the concrete and a smooth riding surface, and helps prolong the life of the deck by limiting moisture and deicing salt intrusion.

At a minimum, the annual program includes spall repair, which is the replacement of pop-outs that appear on the top surface of the pavement (see Photo No. 4.1).

The program, including the recent work under Contract 08-4, involves sounding the surface of the deck using a hammer or chain drag, to identify hollow sounding areas of delaminated concrete for repair in addition to spall repairs. This more aggressive approach is a pro-active measure to prolong the service life of the deck.

The 2009 TYP includes an estimated annual cost for the continuation of this annual patch repair program.

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**5.0 BRIDGE DECK JOINT AND HEADER REPAIRS (CONCRETE)**



**Photo No. NP 5.1**

**Description:** *Span 5 West, Westbound Travel Lane. Concrete rupture at expansion joint.*

movement. The portions of the concrete deck on each side of the joint are referred to as headers. They are often deeper (thicker) than the adjacent deck concrete and function as beams to support the deck and the vehicle loads. The rubber joint seal that fills the gap between the adjacent deck sections prevents

Expansion joints are located at reoccurring intervals along the concrete roadway deck. They allow the bridge to expand and contract seasonally with changes in temperature. Construction joints are narrower joints that were installed during original construction based on concrete placement limitations.

Joints are made up of three primary components: the gap between deck sections, the header on each side of the gap, and the joint seal.

The gap between deck sections, where one deck section ends and another begins, allows for the movement. The rubber joint seal that fills the gap between the adjacent deck sections prevents water from flowing onto the supporting structural steel beneath.



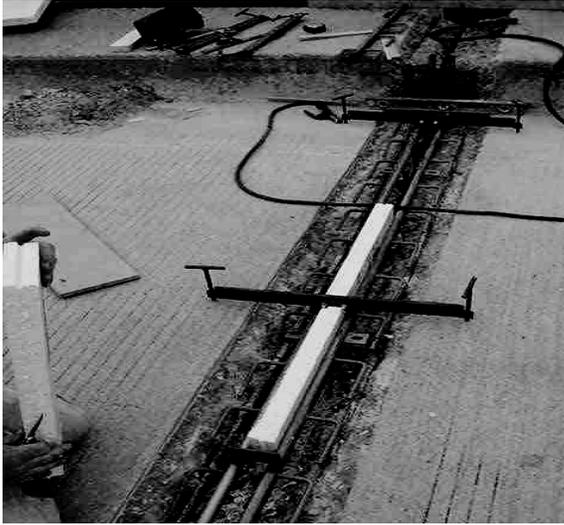
**Photo No. NP 5.2**

**Description:** *Preparation of an expansion joint for a partial depth concrete repair.*

The roadway deck and expansion joint components experience significant wear due to the impact of vehicles crossing the bridge, particularly the heavy truck traffic. The concrete is less resilient and is prone to cracking at the joint locations (see Photo No. 5.1).

The deck, header, and joint seal at expansion joints require special maintenance in order to provide a comfortable ride, remain structurally sound, and to protect the structural steel from corrosion due to storm water runoff.

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**Photo No. NP 5.3**

**Description:** *Preparation of an expansion joint for a partial depth repair.*

This maintenance might include a partial depth repair of the deck and replacement of the joint seal (see Photo Nos. 5.2 and 5.3). In certain instances the repair would involve a full depth replacement of the headers and deck.

Contract 08-4 included the replacement of the joint seals and partial depth header repairs at a significant number of joints for the full length of the bridge. Based on this recent large scale joint rehabilitation project, joint related work in the near future is expected to be minimal and the 2009 TYP includes the first instance of joint and header repairs in year 2015.

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**6.0 REHABILITATION OF WEST APPROACH ROADWAY PAVEMENT (ASPHALT)**



**Photo No. NP 6.1**

**Description:** Westbound West Approach at Structure "E". Cracking and settlement of the pavement in the westbound travel lane.

An asphalt overlay replacement study for the west approach of the Newport/Pell Bridge between the bridge and the toll plaza has been performed with the aid of RIDOT in providing manpower and equipment to take asphalt cores.

The condition of the asphalt in the westbound lane was characterized by surface cracking and settlement of the pavement (see Photo No. 6.1).



**Photo No. NP 6.2**

**Description:** Asphalt core removed from the west approach for analysis.

Asphalt cores revealed that the eastbound lanes require only shallow-depth overlay replacement of the asphalt (see Photo No. 6.2).

The westbound lane is in poorer condition and requires a full-depth asphalt replacement (to a depth of 18 inches).

Based on the findings of this study, Rehabilitation of the West Approach Pavement has been programmed into the 2009 TYP for 2013/2014.

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**7.0 REHABILITATION OF STRUCTURE "E" BRIDGE DECK (CONCRETE)**



**Photo No. NP 7.1**

**Description:** Structure "E", Westbound Lanes. General view showing patch deck repairs and a spall in the westbound travel lane prior to application of the chip seal asphalt overlay.

Structure 'E' is the bridge structure located within the west approach between the Newport/Pell Bridge and the toll plaza, and carries bridge traffic over East Shore Road. Structure 'E' is a simple span bridge with eight rolled steel multi-girders and a composite 7-1/2" thick reinforced concrete deck. A study was performed to evaluate the roadway deck at Structure 'E'. Based on this study, a thin asphalt chip seal overlay system was applied to the roadway deck surface in 2009 under Contract 08-4. This approach is intended to improve the ride quality of the structure and prolong the life of the existing deck.



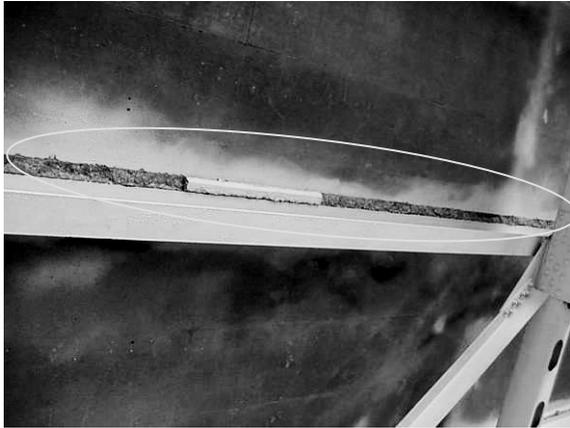
**Photo No. NP 7.2**

**Description:** Structure "E", new chip seal asphalt overlay applied under Contract 08-4.

Photos NP 7.1 and NP 7.2 show the condition of the roadway deck at Structure 'E' before and after the installation of the chip seal asphalt overlay. The 2009 TYP includes the completed overlay installation in 2009 and a future re-application of chip seal asphalt overlay programmed for 2016.

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**8.0 REMOVAL OF LOOSE HAUNCHES (COMBINE WITH APPROPRIATE CONTRACTS)  
(CONCRETE)**



**Photo No. NP 8.1**

**Description:** *Loss of concrete haunches below the concrete deck.*

The concrete deck is supported by steel beams called stringers that are oriented in the same direction as the traffic flow above.

Between the top of the steel stringer and the bottom of the concrete deck is a space filled with concrete, called a haunch, which was provided during original construction to control the geometry of the bridge deck.

The haunches on the Newport/Pell Bridge extend about 3-½ inches past the edge of the steel stringer. The haunches are prone to cracking and falling into the channel below. This condition poses a hazard to boat and ship traffic.

RITBA in-house maintenance staff, bridge inspectors, and contractors remove loose haunches as they are found while performing tasks near the underside of the deck. The 2009 TYP includes costs for haunch removal packaged under Contract 09-1 since the painting and steel repairs in Contract 09-1 require access in the areas of the haunches.

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**9.0 CONCRETE REPAIRS ON PIERS, ABUTMENTS AND ANCHORAGES**



***Photo No. NP 9.1***

***Description:*** Contractor installing concrete forms on a pier column during contract 03-4.

Work performed during Contracts 01-8 and 03-4 included repairs to the land and water piers, the abutments and the anchorages (see Photo No. NP 9.1). Based on this work being completed, future repairs to the substructure elements are not expected to be required in the near future and have been programmed into the 2009 TYP to be in 2017.

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**10.0 PLACING PROTECTIVE CONCRETE JACKETING ON WEST PROTECTION CELLS**



***Photo No. NP 10.1***

***Description:*** *West Protection Cells with protective splash zone coating.*

There are cofferdam protection cells under the main suspension cables at their low point where the cables enter each of the anchorages. These protection cells are intended to protect the cables from damage due to an errant ship. The cells consist of circular corrugated steel cofferdams filled with backfill material and concrete. Inspections of the cells, including measurements of the thickness of the steel, indicated heavy section loss to the East Protection Cell steel in the splash zone area and moderate section loss to the steel at the West Protection Cells in the

splash zone area in 1996. The splash zone areas are prone to corrosion due to exposure to wetting and drying under tidal and wave action. In 1997 the East and West Protection Cells were repaired, with the heavier corroded East Cells being jacketed by concrete. The West Protection Cells had a special protective splash zone material applied at that time. Photo NP 10.1 shows the existing splash zone compound on the West Protection Cells. The 2009 TYP includes a provision to place concrete jacketing at the West Cells in 2017.

# RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN NEWPORT/PELL BRIDGE

## 11.0 PAINTING OF STEEL SUPERSTRUCTURE



**Photo No. NP 11.1**

**Description:** *Main Span, Panel Point 54 East. Floor truss at expansion joint with surface rust and corrosion visible on floor truss elements, stringers and diaphragms.*

The effective useful life span of a bridge is a function of the quality and frequency of structural maintenance. For a steel structure, like the Newport/Pell Bridge, no single maintenance activity is as critical as maintaining the overall paint system.

The effective life of the paint system on different bridges varies significantly due to variations in climate, proximity to a marine environment, and the effectiveness of the drainage system and its ability to divert storm flows away from the steel.

The effective life of the paint system on a single bridge varies significantly as well. Paint on steel members located beneath a leaking deck joint, as exhibited in Photo No. NP 11.1, deteriorates more rapidly than paint that is protected from storm runoff, as shown in the background of the same photo.



**Photo No. NP 11.2**

**Description:** *Span 5E. Paint failure and surface corrosion on steel truss and bracing members.*

Photo NP 11.2 shows the typical condition of steel under previously open finger joints at deck truss spans. As part of Contract 01-7, drainage troughs were installed under these joints to stop water from falling onto and rusting the steel below. This work was intended to be performed prior to painting to ensure that newly painted steel would not be subjected to continued corrosion from the open joints.

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**Photo No. NP 11.3**

**Description:** *East Side Span, Panel Point 5 East. Section loss to top flange of floor truss top chord adjacent to hand-hole.*

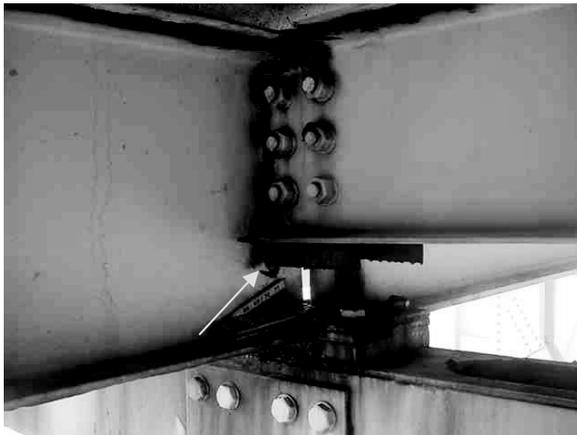
In extreme instances members with failed paint systems may need to be rebuilt or replaced in order to perform their intended function. The corrosion at the handhole in the truss member in Photo No. NP 11.3 shows paint failure that resulted in corrosion that has eventually resulted in localized 100% loss of plate thickness. This localized condition is not currently a structural issue, however continued deterioration such as this can result in requiring structural repairs in addition to painting.

Maintenance cleaning and painting of steel has health and environmental implications, since all paint systems include some level of toxic materials that can be released during removal. The containment of removed paint to prevent it from entering sources of water, as well as for health monitoring of workers performing the work, require careful preparatory work and attention to detail for inspection and monitoring, recordkeeping, and reporting of data. This required containment and environmental and health protection provisions add considerable cost to painting.

The most recent painting performed on the bridge was in 1994 when the spans 5W to 11W were painted. Much of the remainder of the steel on the bridge was last painted in the late 1980's and early 1990's. The optimal expected life of a paint system is fifteen to twenty years. The 2009 TYP includes Contract 09-1 (currently in the bid phase) painting of the main suspended spans, and provisions for future contracts for painting the east and west approach spans.

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**12.0 STEEL SUPERSTRUCTURE REPAIRS/RETROFITS**



**Photo No. NP 12.1**

**Description:** Span 1, Panel Point 48 East, Stringer S8. Crack has formed below the diaphragm connection plate weld on Stringer S8.

During the 2005 Annual Inspection of the Newport/Pell Bridge, inspectors observed a crack on the end of a steel stringer beneath a weld. Stringers are steel beams that are oriented in the same direction as traffic and support the roadway deck. (see Photo Nos. NP 12.1 and NP 12.2).

Subsequently, during the 2006 and 2008 Annual Inspections, more than 30 percent of the locations with this type of weld exhibited similar cracks (see Photo No. NP 12.3).



**Photo No. NP 12.2**

**Description:** Span 1, Panel Point 48 East, Stringer S8. . Close up view of crack that has formed below the diaphragm connection plate weld on Stringer S8.



**Photo No. NP 12.3**

**Description:** West Side Span, Panel Point 25 west, Stringer S2. Stringer exhibits a 6-½ inch long crack on the near side below the diaphragm connection plate weld located on the far side. A 4 inch long crack has formed above the bottom flange fillet.

These cracks have been identified on other similar bridges of this era and are due to a combination of out of plane bending and localized corrosion. The cracks do not pose a current structural problem to the bridge, however, retrofits to these members are required to mitigate further deterioration of the floor system. The 2009 TYP includes repairs to the main span stringers under Contract 09-1 (currently in the bid phase) and provisions for future steel repair contracts at the east and west approach spans.

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**13.0 MAIN CABLE UNWRAPPING, INSPECTION, TESTING & REPAIRS**

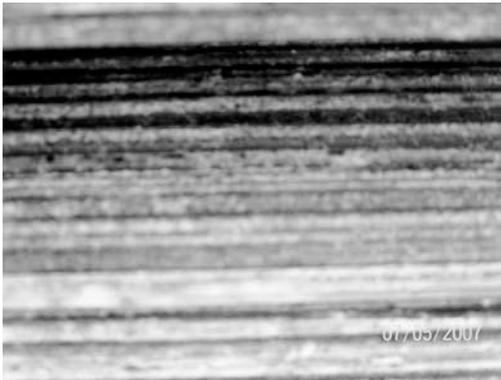


**Photo No. NP 13.1**

**Description:** Cable wrapping removed and wedging of cable wires in place during cable inspection.

The main cables are the bridge's most important non-redundant structural members, and their condition cannot be fully assessed without unwrapping them, wedging them open, and inspecting them.

Under Contract 06-7 a pilot unwrapping and inspection of the main cables was performed at nine panel locations.



**Photo No. NP 13.2**

**Description:** Good condition of main cable wires.

This inspection typically found the main cable wires to be in good condition with isolated areas of corrosion. The key areas of corrosion were located at the exterior wires only at cable band locations and at the entrance of the cables into the anchorages.

The 2009 TYP includes a provision for a follow up inspection of the main cables in 2017 and a placeholder for possible repairs to the main cable system based on the findings of that inspection. It should also be noted that Item 12 Steel Superstructure Repairs/Retrofits

include work under Contract 09-1 (currently in bid phase) to clean and paint the cable bands and replace the caulking of the cable bands on the main cables. This will preclude further deterioration of main cable wires found below the cable band caulking.

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**14.0 TOWER LINK REPAIRS AND CABLE BENT PIN REPAIRS**



**Photo No. NP 14.1**

**Description:** Tower 1 East, Northwest Compression Link.

There are four compression links located at each tower leg, two on the side span side of the tower and two on the main span side of the tower for a total of eight compression links. The compression links connect the bottom chord of the truss to an outrigger bracket on the towers.

The purpose of the links is to maintain the vertical alignment of the roadway between the tower and the suspended span. The links transfer vertical load from the truss to the tower (See Photo NP 14.1).

As the term “compression link” suggests, the tower outrigger bracket is located below the bottom chord of the truss and the traffic load and the truss weight exert a compression force on the link. The compression links act as hinges, with an 8-inch diameter forged steel pin located at each end of the link, one at the bottom chord of the truss and one at the tower outrigger. The pins allow the compression link to rotate at each end and accommodate the longitudinal expansion and contraction of the suspended spans. The pins are threaded on their ends and nuts hold them in place.

As the term “compression link”



**Photo No. NP 14.2**

**Description:** Tower 1 West, Northeast Compression Link, Upper Inside Pin. Drilled dimples in the pin and pin nut, nominally at the 3 o'clock position permit tracking of the relative movement of the pin and the pin nut.

Future repairs to the compression links are anticipated based on the historical performance of these elements and have been included in the 2009 TYP. Three conditions, first observed during the 1989 In-Depth Inspection, have required repairs and are given special emphasis and are monitored on an annual basis.

The first condition is cracking of the vertical elements. To date, four of the eight compression links have been replaced due to cracking. Empirical evidence indicates that the cracks are caused by the introduction of bending forces when the pins have frozen in one position

and can no longer accommodate longitudinal expansion and contraction. The links that have been replaced include grease fittings to help maintain movement at the pins.

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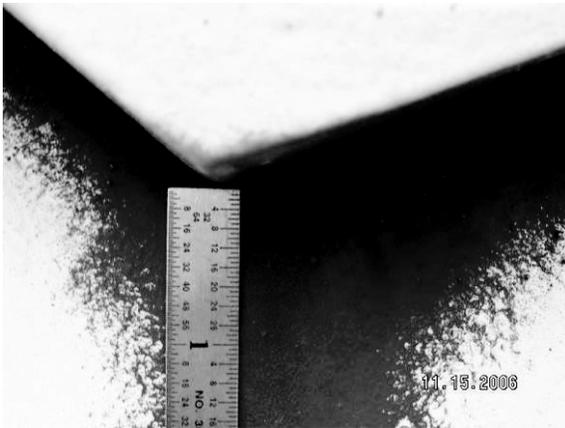
The second condition that is checked regularly is a differential rotational



**Photo No. NP 14.3**

**Description:** Tower 1 West, Northwest Compression Link, Upper Inside Pin. The pin nut has been replaced and welded to the pin.

movement between the pins and the pin nuts. Whereas rotational movement of the pin assemblies is necessary for the compression links to perform as designed, the pin nuts should rotate as a unit with the pins (see Photo NP 14.2). Differential rotation allows the pin nuts to loosen. In two instances, the nut drifted and backed off the pin completely. In each case, a new nut was installed and welded to the pin.



**Photo No. NP 14.4**

**Description:** East Tower, Southwest Compression Link, Upper Outside Pin Nut. The pin nut exhibits nominally 1/2 inch vertical displacement

The third condition that is monitored is wear to the pin assemblies. This is important, because excessive or uneven wear in the links can cause the roadway deck to drop slightly or cause misalignment at the roadway finger joints at the main towers. Wear is observed by noting the vertical movement of the pin nut relative to its adjacent supporting steel. The original location of the pin nut is apparent from surface rust that has formed on the gusset where moisture is trapped between the gusset plate and the pin nut. As wear occurs, the pin nut moves relative to the surface corrosion.

## RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN NEWPORT/PELL BRIDGE

### 15.0 SEISMIC VULNERABILITY STUDY AND UPGRADE

Significant advances have been made in the engineering industry's understanding of seismic (earthquake) design of bridges since the Newport/Pell Bridge was completed in 1969. Bridges constructed prior to 1983, when the AASHTO Guide Specification for Seismic Design of Highway Bridges was issued, are good candidates for seismic retrofit.



**Photo No. NP 15.1**

**Description:** *Pier 30 East, Bearing 7. Rocker bearings at east approach would likely be replaced under seismic retrofit.*

It is considered good practice to upgrade existing structures to meet today's design criteria for performance during a seismic event. The existing criteria are defined in the current ASSHTO, "Load Resistance Factor Design

Bridge Design Specifications", 2006 Interim Revisions.

Areas of potential concern on the Newport/Pell Bridge would include:

- The rocker bearings located on the east approach spans. These bearings do not meet current standards for seismic design.
- The bridge's expansion joints require evaluation to determine if they offer sufficient room for movement during a seismic event and preventing spans from impacting each other with enough force to damage them severely.
- The compression links at the towers, like the expansion joints, require evaluation to determine if they offer sufficient room for movement during a seismic event.
- The connections that secure the superstructure to the substructure in the approach spans need to be sufficiently robust to hold the superstructure in place during a seismic event.

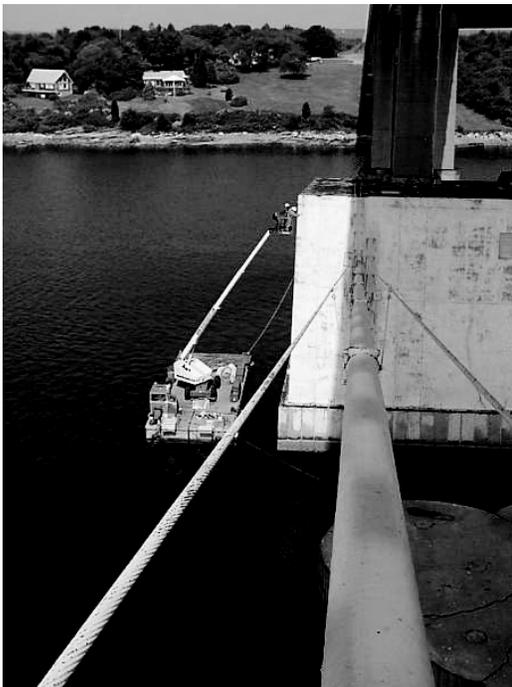
The 2009 TYP includes costs for the performance of a seismic evaluation and estimated costs of the key retrofits/upgrades that are expected, based on our experience, to be identified as necessary by the evaluation.

## RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN NEWPORT/PELL BRIDGE

### 16.0 SECURITY ASSESSMENT, SECURITY CAMERAS AND SECURITY MONITORING – BRIDGE ARMORING

RITBA performed a security assessment that identified recommended security measures/bridge armoring to be implemented. Cameras and fencing have been installed on the bridge to enhance security under various previous contracts. The 2009 TYP includes a placeholder for bridge armoring to be installed as funds are available.

### 17.0 FCM AND UNDERWATER INSPECTIONS



**Photo No. NP 17.1**

**Description:** West Anchorage, Pier 4 West.  
Engineers inspecting concrete on the south face  
of the anchorage with a barge mounted man-lift.

RITBA undertakes Biennial Fracture Critical Member (FCM) Inspections in accordance with the National Bridge Inspection Standards (NBIS) and to gather information necessary to prepare comprehensive repair and upgrade contracts consistent with the programmed repairs in the TYP. RITBA also undertakes Underwater Inspections in accordance with NBIS.

The 2009 TYP includes provisions for these inspections based on the historical costs of access equipment, lane closures and manpower.

# RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN NEWPORT/PELL BRIDGE

## 18.0 ARCHIVE ORIGINAL DESIGN DRAWINGS & SHOP DRAWINGS

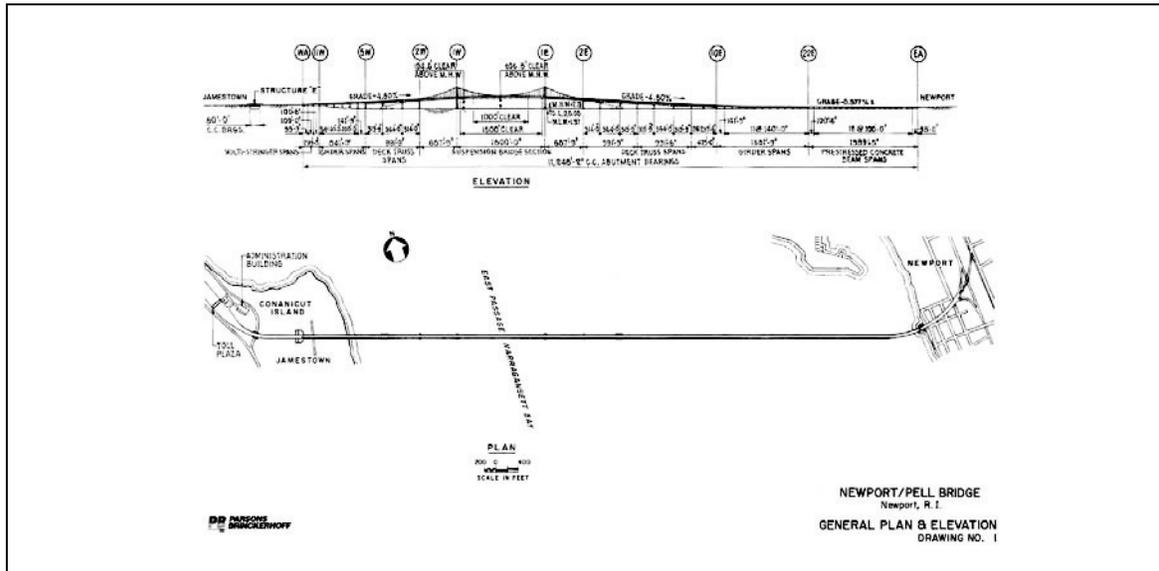


Figure No. NP 18.1

Description: General Plan and Elevation of the Newport/Pell Bridge

The RITBA Maintenance Building in Jamestown, RI holds the original hard-copy complete set of historical contract documentation for the construction of the Newport/Pell Bridge in one location. No full redundancy of these documents, and no redundancy in electronic format, exists. RITBA has been providing for the original documentation to be scanned and archived in phases as convenient and appropriate. For instance, during the design of Contract 09-1 the shop drawings used to aid the design process were gathered for electronic scanning. The 2009 TYP includes estimated costs to perform archiving of the documents as convenient during the performance of other work.

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**19.0 REHABILITATION OF ADMIN BLDG & GROUNDS**



***Photo No. NP 19.1***

***Description:*** Existing RITBA Administration Building.

The RITBA Administration Building requires updating and expansion for security and staff support issues and does not meet current requirements for handicap accessibility. Equipping the building externally and internally to meet security recommendations made in the recent security assessment, staffing needs, and federal ADA requirements will require building modifications. In addition, to accommodate existing and future needs, recommended scope items include utility upgrades, adding an incident command center that can also be used as a conference room, and addressing additional space requirements (to meet staffing

needs, for physical plant improvements, and to enhance security).

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**20.0 STUDY/IMPLEMENTATION OF ADDING A MEDIAN BARRIER**

The Newport/Pell Bridge was originally constructed without a center median barrier. A median barrier can enhance the safety of the bridge by segregating opposing traffic. A type study of various barrier systems as well as exploring the merits and structural implications of adding a median barrier to enhance traffic safety was performed in 2008 and an aerodynamic evaluation of the main span under the addition of a median barrier is currently being performed.

The 2009 TYP includes the estimated cost of installation of a Median Barrier. This work was included in a TIGER Grant application that was submitted in 2009 with announcements of award expected in January of 2010. The Median Barrier installation costs were moved from Year 2 in the previous TYP to Year 6 in the 2009 TYP assuming that no TIGER Grant funds are received for this work. This work is recommended to be performed as soon as funds become available.

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**21.0 ROCKER BEARING REPAIRS/RESETTING**



**Photo No. NP 21.1**

**Description:** Pier 40 East in the pre-stressed concrete beam spans in the east approach.

The 20 approach spans on the east end of the bridge near Newport are pre-stressed concrete beam spans supported on double column pier bents (see Photo NP 21.1).

The nine (9) pre-stressed concrete beams that support the roadway deck in these spans are supported at each pier by an end bearing. On one end is a fixed bearing that remains vertical at all times and an expansion bearing on the other end is designed to tilt to accommodate thermal movement.

At certain pier locations, expansion bearings have been observed to be frozen in an overextended position (see Photo NP 21.2) due to age, loss of lubrication, and build-up of rust around the base of the bearing designed to tilt, all preventing the expansion bearings from operating properly.



**Photo No. NP 21.2**

**Description:** Pier 23 East, Span 25, Expansion Bearings. Overextended bearings.

This condition, if left uncorrected, could lead to the bearing “tipping over,” resulting in a dropping of the beam and roadway deck.

RITBA has taken preventive corrective measures to reset the bearings that have been observed to be over extended.

There are not currently any known locations of over extended bearings that require immediate resetting. The 2009 TYP includes provisions for future bearing resettings based on historical frequencies and costs associated with this issue.

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**22.0 MISCELLANEOUS MAINTENANCE AND REPAIRS**

The 2009 TYP includes a provision for annual maintenance and repairs of up to \$100,000 that are identified as necessary during the inspections but not included in any other item programmed into the TYP.

## **RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN MOUNT HOPE BRIDGE**

### **1.0 TOWER PIER AND ANCHORAGE REHABILITATION & BRIDGE SCOUR REMEDIATION**

The 2009 TYP includes the remaining work to complete Contract 08-1 that includes the rehabilitation of the main span tower pier bases and anchorages and scour remediation. This work will be completed in 2010.



**Photo No. MH 1.1**

**Description:** Contract 08-1 rehabilitation of the tower pier base.



**Photo No. MH 1.2**

**Description:** Contract 08-1 rehabilitation of the anchorage.

### **2.0 ENGINEERING AND UNDERWATER INSPECTION SPECIALIST**

The RITBA undertakes underwater structural inspections in accordance with the National Bridge Inspection Standards. The 2009 TYP includes provisions for these inspections based on the historical costs.

### **3.0 SECURITY ASSESSMENT STUDY & UPGRADES (INCLUDING CAMERAS) – BRIDGE ARMORING**

RITBA performed a security assessment that identified recommended security measures/bridge armoring to be implemented. The 2009 TYP includes estimated costs for the installation of recommended security equipment including cameras, and a placeholder for bridge armoring to be installed as funds are available.

## **RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN MOUNT HOPE BRIDGE**

### **4.0 FRACTURE CRITICAL BIENNIAL AND ANNUAL INSPECTIONS**

RITBA undertakes Biennial Fracture Critical Member (FCM) Inspections in accordance with the National Bridge Inspection Standards (NBIS) and to gather information necessary to prepare comprehensive repair and upgrade contracts consistent with the programmed repairs in the TYP.

The 2009 TYP includes provisions for these inspections based on the historical costs of access equipment, lane closures and manpower.

### **5.0 ON CALL DECK MAINTENANCE**

Roadway concrete deck patch repair is an biennial component of the Mount Hope Bridge maintenance schedule.

This program helps prolong the life of the deck by limiting moisture and deicing salt intrusion.

At a minimum, the annual program includes spall repair, which is the replacement of pop-outs that appear on the top surface of the pavement

The 2009 TYP includes an estimated biennial cost for the continuation of this annual patch repair program.

### **6.0 FUTURE REPAIRS/MINOR REHABILITATION**

The 2009 TYP includes a provision for annual maintenance and repairs of up to \$160,000 that are identified as necessary during the inspections but not included in any other item programmed into the TYP.

## **RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN MOUNT HOPE BRIDGE**

### **7.0 SEISMIC VULNERABILITY STUDY AND RETROFIT**

Significant advances have been made in the engineering industry's understanding of seismic (earthquake) design of bridges since the Mount Hope Bridge was completed in 1929. Bridges constructed prior to 1983, when the AASHTO Guide Specification for Seismic Design of Highway Bridges was issued, are good candidates for seismic retrofit.

It is considered good practice to upgrade existing structures to meet today's design criteria for performance during a seismic event. The existing criteria are defined in the current ASSHTO, "LRFD Bridge Design Specifications", 2006 Interim Revisions.

Areas of potential concern on the Mount Hope Bridge would include the bearings throughout the structure.

The 2009 TYP includes costs for the performance of a seismic evaluation and estimated costs of the key retrofits/upgrades that are expected to be identified as necessary by the evaluation.

### **8.0 APPROACH PAVEMENT REPLACEMENT**

The concrete approach slab is deteriorating and the asphalt pavement is impacted. The 2009 TYP includes provisions for the replacement of the concrete approach slab and asphalt approach pavements in 2014.

**RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN  
MOUNT HOPE BRIDGE**

**9.0 ROADWAY DECK – REMOVE CONCRETE OVERFILL & REPLACE WITH PAVEMENT**

The two inch concrete wearing surface on the Mount Hope Bridge has a history of separating from the structural grid deck. Chip seal asphalt overlay has been applied to the deck surface twice to extend the life of the concrete wearing surface. This approach has provided additional life to the existing concrete wearing surface, however additional layers of chip seal are not practical due to weight issues. It is expected that in 2013 the overlays and existing concrete wearing surface will be required to be removed and a new concrete wearing surface installed.



***Photo No. MH 9.1***

***Description:*** Chip Seal asphalt overlay on bridge roadway deck.

**RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN  
MOUNT HOPE BRIDGE**

**10.0 SUPERSTRUCTURE PAINTING & STEEL REPAIRS & CATWALK UPGRADE (ZONE PAINTING CONTRACTS)**

The effective useful life span of a bridge is a function of the quality and frequency of structural maintenance. For a steel structure, like the Mount Hope Bridge, no single maintenance activity is as critical as maintaining the overall paint system.

The effective life of the paint system on different bridges varies significantly due to variations in climate, proximity to a marine environment, and the effectiveness of the drainage system and its ability to divert storm flows away from the steel.



**Photo No. MH 10.1**

**Description:** *Paint failure at roadway joint and fascia and associated corrosion of steel members.*

The effective life of the paint system on a single bridge varies significantly as well. Paint on steel members located beneath a leaking deck joint, as exhibited in Photo No. MH 10.1, deteriorates more rapidly than paint that is protected from storm runoff, as shown in the areas of intact paint that are located away from the joint.

Maintenance cleaning and painting of steel has health and environmental implications, since all paint systems include some level of toxic materials that can be released during removal. The containment of removed paint to prevent it from entering sources of

water, as well as for health monitoring of workers performing the work, require careful preparatory work and attention to detail for inspection and monitoring, recordkeeping, and reporting of data. This required containment and environmental and health protection provisions add considerable cost to painting.

The 2009 TYP includes painting and steel repairs to the north approach spans in 2010 through 2012 and to the south approach spans in 2013 through 2015.

## **RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN MOUNT HOPE BRIDGE**

### **11.0 CABLE INSPECTION (8 PANELS INCLUDING BACKSTAYS)**

The main cables are the bridge's most important non-redundant structural members, and their condition cannot be fully assessed without unwrapping them, wedging them open, and inspecting them.

The 2009 TYP includes a provision for the second cable inspection to be performed on the Mount Hope Bridge. The first inspection found the cables to be in generally good condition and included full replacement of the wrapping system and suspender ropes. The second inspection is programmed to take place in 2012.

### **12.0 ANCHORAGE DEHUMIDIFICATION SYSTEM**

The main cables within the anchorages of the Mount Hope Bridge are subjected to humid conditions based on the findings of current humidity monitoring that is taking place. The wires of the main cable within the anchorages are oiled providing protection against corrosion in the humid environment. A place holder has been included in the 2009 TYP for possible future work, if identified as necessary, associated with dehumidifying the anchorages to prolong the life of the main cables.



**Photo No. MH 12.1**

**Description:** Interior of anchorage showing cable splay.

**RITBA 2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN  
MOUNT HOPE BRIDGE**

**13.0 CABLE BENT LEGS INTERIOR PAINTING AND REHABILITATION**

The 2009 TYP includes costs for the painting and rehabilitation as required of the cable bent interiors. This work is to be packaged with the work included under Item 10 and is programmed to be performed in 2010/2011.



***Photo No. MH 13.1***

***Description: Exterior view of cable bent.***

# **APPENDIX**

## **2009 TEN YEAR RENEWAL AND REPLACEMENT PLAN**

**RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
NEWPORT/PELL BRIDGE  
TEN YEAR RENEWAL AND REPLACEMENT PLAN - Approved by Board September 23, 2009**

PROJECT				ESTIMATED PROJECT EXPENDITURE FOR FISCAL YEAR (\$1000)										TOTAL PROJECT COSTS (\$1000)
Item	Priority	DESCRIPTION	TYPE (See Notes)	July 2009- June 2010	July 2010- June 2011	July 2011- June 2012	July 2012- June 2013	July 2013- June 2014	July 2014- June 2015	July 2015- June 2016	July 2016- June 2017	July 2017- June 2018	July 2018- June 2019	
1	2	Bridge Deck Evaluation (concrete) and Full Depth Replacement	Study/Rehab											0
		Engineering/Technical Support	(Deck)							100				100
Project Total													100	
2	1	Bridge Deck Sealing (concrete)	Maint/Rehab					425					425	850
		Engineering/Technical Support	(Deck)					15					15	30
Project Total													880	
3	1	Bridge Deck Slab Partial Depth Rehabilitation (Hydrodemolition) (concrete)	Maint/Rehab						3,650	3,650				7,300
		Engineering/Technical Support	(Deck)					300	400	400			300	1,400
Project Total													8,700	
4	1	Bridge Deck Patching Roadway/Approaches (concrete)	Maint/Rehab	240	240	240	240	240	240	240	120	120	120	2,040
		Engineering/Technical Support	(Deck)	15	15	15	15	15	15	15	15	15	15	150
Project Total													2,190	
5	2	Bridge Deck Joint and Header Repairs (concrete)	Maint/Rehab							500				500
		Engineering/Technical Support	(Deck)							50				50
Project Total													550	
6	1	Rehabilitation of West Approach Roadway Pavement (asphalt)	Maint/Rehab					2,000						2,000
		Engineering/Technical Support	(Roadway)					200						200
Project Total													2,200	
7	2	Rehabilitation of Structure "E" Bridge Deck (concrete)	Study/Rehab	30							30			60
		Engineering/Technical Support	(Deck)											0
Project Total													60	
8	1	Removal of loose haunches (combine with appropriate contracts) (concrete)	Maint.			150	150	150						450
		Engineering/Technical Support	(Deck)			0	0	0						0
Project Total													450	

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**RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
NEWPORT/PELL BRIDGE  
TEN YEAR RENEWAL AND REPLACEMENT PLAN - Approved by Board September 23, 2009**

PROJECT				ESTIMATED PROJECT EXPENDITURE FOR FISCAL YEAR (\$1000)										TOTAL PROJECT COSTS (\$1000)
Item	Priority	DESCRIPTION	TYPE (See Notes)	July 2009- June 2010	July 2010- June 2011	July 2011- June 2012	July 2012- June 2013	July 2013- June 2014	July 2014- June 2015	July 2015- June 2016	July 2016- June 2017	July 2017- June 2018	July 2018- June 2019	
9	2	Concrete repairs on piers, abutments and anchorages	Maint/Rehab									500	500	1,000
		Engineering/Technical Support	(Sub Structure)								60	35	35	130
Project Total													1,130	
10	2	Placing Protective Concrete Jacketing on West Prot. Cells	Maint/Rehab									850		850
		Engineering/Technical Support	(Sub structure)								60	100		160
Project Total													1,010	
11	1	Painting of steel superstructure	Maint.	5,940	11,880	15,030	15,750	12,600	11,700	11,700				84,600
		Engineering/Technical Support	(Paint)	660	1,320	1,670	1,750	1,400	1,300	1,300				9,400
				Main Spans		MS & EA	East Approach		West Approach		Project Total			94,000
12	1	Steel Superstructure Repairs/Retrofits	Maint/Rehab	2,700	5,400	4,000	1,000	750	500	500				14,850
		Engineering/Technical Support	(Steel super structure)	300	600	400	100	75	50	50				1,575
				Main Spans		MS & EA	East Approach		West Approach		Project Total			16,425
13	2	Main Cable Unwrapping, Inspection, Testing & Repairs	Upgrade										Needs to be det'd by 2018 insp.	0
		Engineering/Technical Support	(Steel specialty)								150	3,450		3,600
Project Total													3,600	
14	2	Tower Link Repairs and Cable Bent Pin Repairs	Maint.					250					125	375
		Engineering/Technical Support	(Steel specialty)					20					15	35
Project Total													410	

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**RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
NEWPORT/PELL BRIDGE  
TEN YEAR RENEWAL AND REPLACEMENT PLAN - Approved by Board September 23, 2009**

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PROJECT			ESTIMATED PROJECT EXPENDITURE FOR FISCAL YEAR (\$1000)										TOTAL PROJECT COSTS (\$1000)	
Item	Priority	DESCRIPTION	TYPE (See Notes)	July 2009- June 2010	July 2010- June 2011	July 2011- June 2012	July 2012- June 2013	July 2013- June 2014	July 2014- June 2015	July 2015- June 2016	July 2016- June 2017	July 2017- June 2018	July 2018- June 2019	
15	2	Seismic Vulnerability Study and Upgrade	Upgrade							3,000	3,000	4,200	4,200	14,400
		Engineering/Technical Support	(Sub structure/ super structure/ bearings)					525	425	150	150	220	220	1,690
													16,090	
16	1	Security Assessment, Security Cameras and Security Monitoring - Bridge Armoring	Upgrade			Bridge Armoring to be Implemented as soon as funds are available								0
		Engineering/Technical Support	(Safety)											0
													Project Total	0
17	1	FCM and Underwater Inspections	Maint.	900	750		750		750		750		750	4,650
													Project Total	4,650
18	3	Archive original design dwgs & shop drawings	Upgrade		50		50		50		50		50	250
		Engineering/Technical Support	(Admin)											0
													Project Total	250
19	1	Rehabilitation of Admin Bldg & Grounds	Rehab.		255	850	650							1,755
		Engineering/Technical Support	(Admin/ safety)		20	55	35							110
													Project Total	1,865
20	1	Study/Implementation of Adding a Median Barrier	Upgrade						5,200					5,200
		Engineering/Technical Support	(Safety)					150	520					670
													Project Total	5,870
21	2	Rocker Bearing Repairs/Resetting	Repair			100			100				100	300
		Engineering/Technical Support	(Bearings)			20			20				20	60
													Project Total	360
22	2	Miscellaneous Maint & Repairs	Maint.	100	100	100	100	100	100	100	100	100	100	1,000
													Project Total	1,000
<b>TOTAL EST'D EXPENDITURE BY FISCAL YEAR</b>				<b>10,885</b>	<b>20,630</b>	<b>22,630</b>	<b>20,590</b>	<b>19,215</b>	<b>25,020</b>	<b>21,755</b>	<b>4,485</b>	<b>9,590</b>	<b>6,990</b>	

**RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY  
NEWPORT/PELL BRIDGE  
TEN YEAR RENEWAL AND REPLACEMENT PLAN - Approved by Board September 23, 2009**

PROJECT			ESTIMATED PROJECT EXPENDITURE FOR FISCAL YEAR (\$1000)										TOTAL PROJECT COSTS (\$1000)	
Item	Priority	DESCRIPTION	TYPE (See Notes)	July 2009- June 2010	July 2010- June 2011	July 2011- June 2012	July 2012- June 2013	July 2013- June 2014	July 2014- June 2015	July 2015- June 2016	July 2016- June 2017	July 2017- June 2018	July 2018- June 2019	

<b>MOUNT HOPE TOTALS</b>				<b>5,816</b>	<b>7,245</b>	<b>3,696</b>	<b>2,278</b>	<b>11,011</b>	<b>8,512</b>	<b>4,423</b>	<b>4,058</b>	<b>496</b>	<b>285</b>	<b>\$47,820</b>
<b>RITBA TOTALS BOTH BRIDGES</b>				<b>16,701</b>	<b>27,875</b>	<b>26,326</b>	<b>22,868</b>	<b>30,226</b>	<b>33,532</b>	<b>26,178</b>	<b>8,543</b>	<b>10,086</b>	<b>7,275</b>	<b>\$209,610</b>
<b>TOTAL FOR BOTH BRIDGES THROUGH YEAR 5</b>								<b>123,996</b>						

**NOTES ON REVISIONS TO ANNUAL EXPENDITURES COMPARED TO THE JULY 8, 2009 BOARD APPROVED 2009 TEN YEAR PLAN FOR ITEMS AND YEARS HIGHLIGHTED IN RED**

**ITEM 6 - Approach pavement has failed and presents a ride quality issue that may generate complaints, however this is not currently a safety issue and has been deferred from year 2 to year 5 to minimize earlier year costs. Deferring to beyond the first five years is not recommended since this may escalate to a safety issue and require repairs in this time frame.**

**ITEM 8 - Haunch removal in Years 1 and 2 are covered by costs in Items 11 and 12. Years 3 through 5 have been reduced based on recent inspections**  
**ITEMS 11 AND 12 - A sixth and seventh year was added to the steel repairs and protective coating contracts assuming that no TIGER Grant funds are received for this work. Deferment of painting from a five year to seven year program results in additional steel repair costs that are approximated and included under Item 12.**

**ITEM 16 - Costs for security cameras and monitoring were removed assuming that Port Security Grants are successful and cover these costs.**

**ITEM 20 - Median Barrier installation costs moved from Year 2 to Year 6 assuming that no TIGER Grant funds are received for this work. This work is recommended to be performed as soon as any funds become available.**

**ITEM 21 - No Rocker Bearing repairs/resetting are required this Fiscal Year.**

- NOTES:
- 1 All estimates are preliminary budget estimates based on available information and indicate the approximate magnitude of cost.
  - 2 Projects identified under maintenance category are repairs required for the preservation of structure integrity.
  - 3 Projects identified under maintenance/rehab category are for preservation of structural integrity on a scale larger than typical repairs.
  - 4 Projects identified under upgrade are for bridge system preservation, updating to current standards and for significant improvement in level of service.
  - 5 The above listing is exclusive of recurring general maintenance of bridge and other facilities and annual inspection projects.
  - 6 Detail project scoping will be performed on a project basis.
  - 7 Engineering/Technical Support costs for this Ten-Year Plan have been projected as a percentage of the estimated construction cost.

For Maintaining Structural Integrity

Upgrade/Improvement

For Meeting Standards/Safety

Priority - 1 High, 2 Medium, 3 Low

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**RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY**  
**MOUNT HOPE BRIDGE**  
**TEN-YEAR RENEWAL AND REPLACEMENT PLAN (in 2009 Dollars) - Approved by Board September 23, 2009**

PROJECT				ESTIMATED PROJECT EXPENDITURE FOR FISCAL YEAR (\$1000)										TOTAL PROJECT COSTS (\$1000)
Item	Priority	DESCRIPTION	TYPE (See Notes)	July 2009- June 2010	July 2010- June 2011	July 2011- June 2012	July 2012- June 2013	July 2013- June 2014	July 2014- June 2015	July 2015- June 2016	July 2016- June 2017	July 2017- June 2018	July 2018- June 2019	
1	1	Tower Pier and Anchorage Rehabilitation & Bridge Scour Remediation <sup>8</sup>	Upgrade	4,500										4,500
		Engineering/ Tech. Support		400										400
<b>Project Total</b>													<b>4,900</b>	
2	1	Engineering and Underwater Inspection Specialist	Insp.		77					77			77	231
<b>Project Total</b>													<b>231</b>	
3	1	Security Assessment Study & Upgrades (incl. Cameras) - Bridge Armoring	Upgrade	250	250	Bridge Armoring to be Implemented as soon as funds are available							500	
		Engineering/Tech. Support		20	10									30
<b>Project Total</b>													<b>530</b>	
4	1	Fracture Critical Biennial and Annual Inspections	Insp.	220	32	220	32	220	32	220	32	220	32	1,260
<b>Project Total</b>													<b>1,260</b>	
5	2	On-Call Deck Maintenance <sup>6</sup>	Maint./	90		90		90		90		90		450
		Engineering/Tech. Support	Rehab	10		10		10		10		10		50
<b>Project Total</b>													<b>500</b>	
6	2	Future Repairs / Minor Rehabilitation	Maint./ Rehab	160	160	160	160	160	160	160	160	160	160	1,600
		Engineering/Tech. Support		16	16	16	16	16	16	16	16	16	16	160
<b>Project Total</b>													<b>1,760</b>	
7	2	Seismic Vulnerability Study and Retrofit <sup>10</sup>	Upgrade						3,500	3,500	3,500			10,500
		Engineering/Tech. Support			400				350	350	350			1,450
<b>Project Total</b>													<b>11,950</b>	
8	3	Approach Pavement Replacement	Maint./ Upgrade						140					140
		Engineering/Tech. Support							14					14
<b>Project Total</b>													<b>154</b>	
9	2	Roadway Deck - Remove Concrete Overfill & Replace with Pavement <sup>9</sup>	Maint.					4,650						4,650
		Engineering/Tech. Support					20	465						485
<b>Project Total</b>													<b>5,135</b>	

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**RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY**  
**MOUNT HOPE BRIDGE**  
**TEN-YEAR RENEWAL AND REPLACEMENT PLAN (in 2009 Dollars) - Approved by Board September 23, 2009**

PROJECT			ESTIMATED PROJECT EXPENDITURE FOR FISCAL YEAR (\$1000)										TOTAL PROJECT COSTS (\$1000)	
Item	Priority	DESCRIPTION	TYPE (See Notes)	July 2009- June 2010	July 2010- June 2011	July 2011- June 2012	July 2012- June 2013	July 2013- June 2014	July 2014- June 2015	July 2015- June 2016	July 2016- June 2017	July 2017- June 2018		July 2018- June 2019
10	1	Superstructure Painting & Steel Repairs & Catwalk Upgrade(Zone Painting Contracts)	Maint.		5,000	3,000		5,000	4,000					17,000
		Engineering/Tech. Support		150	400	200	150	400	300					1,600
<b>Project Total</b>													<b>18,600</b>	
11	2	Cable Inspection (8 Panels Including Backstays)	Insp.				1,500							1,500
		Engineering/Tech. Support					400							400
<b>Project Total</b>													<b>1,900</b>	
12	3	Anchorage Dehumidification System	Upgrade	Scope of work to be determined by study.										0
		Engineering/ Tech. Support												0
<b>Project Total</b>													<b>0</b>	
13	1	Cable Bent Legs Interior Painting and Rehabilitation	Upgrade		700									700
		Engineering/ Tech. Support			200									200
<b>Project Total</b>													<b>900</b>	
<b>TOTAL ESTIMATED EXPENDITURE PER FISCAL YEAR</b>				<b>5,816</b>	<b>7,245</b>	<b>3,696</b>	<b>2,278</b>	<b>11,011</b>	<b>8,512</b>	<b>4,423</b>	<b>4,058</b>	<b>496</b>	<b>285</b>	
													<b>\$47,820</b>	

Notes:

- 1 All estimates are preliminary budget estimates based on available information and indicate the approximate magnitude of anticipated cost.
- 2 Projects identified under maintenance category are for the preservation of structural integrity.
- 3 Projects identified under upgrade are for bridge system preservation, updating to current standards and for improvement in level of service.
- 4 Detail project scoping will be performed on a project basis.
- 5 Engineering/Technical Support costs for all projects have been projected as 10% of the estimated construction cost.

For Maintaining Structural Integrity
Upgrade/Improvement

For Meeting Standards/Safety

Priority - 1 High, 2 Medium, 3 Low

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**PROPOSED FORM OF BOND COUNSEL OPINION**



Date of Delivery

Rhode Island Turnpike and Bridge Authority  
One East Shore Road, Route 138  
Administration Building  
Jamestown, Rhode Island 02835

Re: \$50,000,000 Rhode Island Turnpike and Bridge Authority  
Revenue Bonds, Series 2010 A, dated April 8, 2010

Ladies and Gentlemen:

We have examined a record of proceedings relating to the issuance of the \$50,000,000 Revenue Bonds, Series 2010 A (the “Bonds”) of the Rhode Island Turnpike and Bridge Authority (the “Authority”), a body politic and corporate, created under Title 24, Chapter 12 of the Rhode Island General Laws (1997 Reenactment), as amended and supplemented (the “Act”). We have examined the Constitution and statutes of the State of Rhode Island and Providence Plantations (the “State”), certified copies of proceedings and other papers we have deemed necessary to render this opinion.

The Bonds are dated April 8, 2010 and bear interest from such date payable on June 1 and December 1 of each year, commencing December 1, 2010. The Bonds are issued by means of a book-entry system evidencing ownership and transfer of the Bonds on the records of The Depository Trust Company and its participants and will mature on the dates and in the principal amounts, will bear interest at the respective rates per annum, and are subject to redemption as set forth in the Bonds.

The Bonds are issued pursuant to the Constitution and statutes of the State, including the Act, and the provisions, terms and conditions of an Amended and Restated Master Indenture of Trust dated as of July 1, 2003 and amended and restated as of April 1, 2010 (the “Master Indenture”), by and between the Authority and U.S. Bank National Association, as trustee (the “Trustee”), as amended and supplemented by a First Supplemental Indenture of Trust dated as of July 1, 2003 (the “First Supplemental Indenture”), by and between the Authority and the Trustee, and a Second Supplemental Indenture of Trust dated as of April 1, 2010 (the “Second Supplemental Indenture”), by and between the Authority and the Trustee (the Master Indenture,

the First Supplemental Indenture and the Second Supplemental Indenture are collectively referred to herein as the “Indenture”).

In rendering the opinions set forth herein, we have made a review of such legal proceedings as we have deemed necessary to approve the legality and validity of the Bonds and relied upon representations of the Authority contained in the Indenture, the certified proceedings and other certifications furnished to us by the Authority without undertaking to verify the same by independent investigation. In rendering the opinions set forth herein, we have not been requested to examine any document or financial or other information concerning the Authority, and the Series 2010 A Project (each as defined in the Indenture) other than the record of proceedings referred to above and we express no opinion as to the accuracy, adequacy or sufficiency of any financial or other information which has been or will be supplied to purchasers of the Bonds. Capitalized terms used herein and not otherwise defined shall have the meanings as set forth in the Indenture.

Based upon the foregoing, it is our opinion that:

1. The Authority is duly created and validly existing as a public body corporate and agency of the State with the corporate power to enter into and perform the obligations under the Indenture and to issue the Bonds.
2. The Indenture has been duly authorized, executed and delivered by the Authority and constitutes a valid and binding obligation of the Authority enforceable upon the Authority in accordance with its terms. The Authority does not have taxing power. The Indenture creates a valid lien on the Net Revenues and the amounts on deposit in the funds and accounts created pursuant to the Indenture, including the earnings thereon, in the manner and to the extent provided in the Indenture.
3. The Bonds have been duly authorized, executed and delivered by the Authority and constitute valid and binding special obligations of the Authority, payable solely from the Net Revenues and funds and accounts pledged under the Indenture, enforceable in accordance with their terms and the terms of the Indenture, and entitled to the benefits of the Act and the Indenture.
4. The Internal Revenue Code of 1986 (the “Code”) sets forth certain requirements which must be met subsequent to the issuance and delivery of the Bonds for interest thereon to be and remain excluded from gross income for Federal income tax purposes. Noncompliance with such requirements could cause the interest on the Bonds to be included in gross income for Federal income tax purposes retroactive to the date of issue of the Bonds. Pursuant to the Indenture and a Tax Certificate of the Authority as to Arbitrage and the Provisions of Sections 103 and 141-150 of the Internal Revenue Code of 1986 (the “Tax Certificate”), the Authority has covenanted to comply with the applicable requirements of the Code in order to maintain the exclusion of the interest on the Bonds from gross income for Federal income tax purposes pursuant to Section 103 of the Code. In addition, the Authority has made certain representations and certifications in the Indenture and the Tax Certificate. We have not independently verified the accuracy of those representations and certifications.

Under existing law, assuming compliance with the tax covenants described herein and the accuracy of aforementioned representations and certifications, interest on the Bonds is excluded from gross income for Federal income tax purposes under Section 103 of the Code. We are also of the opinion that such interest is not treated as a preference item in calculating the alternative minimum tax imposed under the Code with respect to individuals and corporations. Moreover, interest on the Bonds is excluded in the adjusted current earnings of corporations for purposes of computing the alternative minimum tax imposed on corporations.

The Bonds, their transfer and the income therefrom, including any profit made on the sale thereof, are exempt from taxation by and within the State; although the Bonds, their transfer and the income therefrom, including any profit made on the sale thereof, may be included in the measure of State estate taxes and certain State corporate and business taxes. We express no opinion as to other State or local tax consequences arising with respect to the Bonds nor as to the taxability of the Bonds or the income therefrom under the laws of any state other than the State.

We are further of the opinion that the difference between the principal amount of the Bonds maturing December 1, 2018, December 1, 2021 through 2028 with a 4.625% interest coupon, inclusive, and December 1, 2029, December 1, 2030, December 1, 2035 with a 5.125% interest coupon, December 1, 2035 with a 5.00% interest coupon and December 1, 2039 (collectively the “Discount Bonds”) and the 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 such Discount Bonds of the same maturity 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 Bonds. Further, such original issue discount accrues actuarially on a constant interest rate basis over the term of each Discount Bond and the basis of each Discount Bond acquired at such initial offering price by an initial purchaser thereof will be increased by the amount of such accrued original issue discount. The accrual of original issue discount may be taken into account as an increase in the amount of tax-exempt income for purposes of determining various other tax consequences of owning the Discount Bonds, even though there will not be a corresponding cash payment.

Except as stated in the preceding four paragraphs, we express no opinion as to any other Federal, state or local tax consequences of the ownership or disposition of the Bonds. Furthermore, we express no opinion as to any Federal, state or local tax law consequences with respect to the Bonds, or the interest thereon, if any action is taken with respect to the Bonds or the proceeds thereof upon the advice or approval of other counsel.

Obligations of the Authority, including the Bonds, are subject to bankruptcy, insolvency, reorganization and similar laws affecting the rights and remedies of creditors and the availability of the remedy of specific enforcement or of injunctive relief is subject to the discretion of the court before which any proceedings therefor may be brought.

Very truly yours,

NIXON PEABODY LLP

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**FORM OF CONTINUING DISCLOSURE AGREEMENT**

This Continuing Disclosure Agreement (the “Disclosure Agreement”) is executed and delivered by the Rhode Island Turnpike and Bridge Authority, a body corporate and politic created under Title 24 Chapter 12 of the Rhode Island General Laws as amended (the “Authority”), in connection with the issuance of its \$50,000,000 Revenue Bonds, Series 2010 A, dated April 8, 2010 (the “Bonds”). The Authority covenants and agrees as follows:

SECTION 1. Purpose of the Disclosure Agreement. This Disclosure Agreement is being executed and delivered by the Authority for the benefit of the Owners of the Bonds and in order to assist the Participating Underwriters in complying with the Rule.

SECTION 2. Definitions. For purposes of this Disclosure Agreement the following capitalized terms shall have the following meanings:

“Annual Financial Information” shall mean any such financial information provided by the Authority pursuant to, and as described in, Sections 3 and 4 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 established pursuant to Section 15(b)(1) of the Securities and Exchange Act of 1934, as amended, and designated as the sole repository by the Securities and Exchange Commission to receive filings pursuant to the Rule.

“Owners of the Bonds” shall mean the registered owners, including beneficial owners, of the Bonds.

“Participating Underwriter” shall mean any of the original underwriters of the Bonds required to comply with the Rule in connection with offering of the Bonds.

“Rule” shall mean Rule 15c2-12 adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

SECTION 3. Provision of Annual Financial Information.

(a) Commencing with the fiscal year ending June 30, 2010, the Authority shall, not later than 240 days after the end of each fiscal year, provide to the MSRB Annual Financial Information which is consistent with the requirements of Section 4 of this Disclosure Agreement. The Annual Financial Information may be submitted as a single document or as separate documents comprising a package, and may cross-reference other information as provided in Section 4 of this Disclosure Agreement; provided that the audited financial statements of the

Authority may be submitted when available separately from the balance of the Annual Financial Information.

(b) If the Authority is unable to provide to the MSRB the Annual Financial Information by the date required in subsection (a), the Authority shall send a notice to the MSRB, in substantially the form attached as Exhibit A.

SECTION 4. Content of Annual Financial Information. The Authority's Annual Financial Information shall contain or incorporate by reference the following:

(a) quantitative information for the preceding fiscal year of the type presented in the Authority's Official Statement dated April 8, 2010 relating to the Bonds under the subcaptions "Recent and Historical Toll Transactions and Toll Revenues" and "Historical Revenues, Expenditures and Debt Service Coverage" under the caption "THE CLAIBORNE PELL BRIDGE AND THE MOUNT HOPE BRIDGE."

(b) the most recently available audited financial statements of the Authority, prepared in accordance with generally accepted accounting principles (Except for the omission, if any, of a statement of fixed assets).

If audited financial statements for the preceding fiscal year are not available when the Annual Financial Information is submitted, the Annual Financial Information will include unaudited financial statements for the preceding fiscal year and audited financial statements for such fiscal year shall be submitted when available.

Any or all of the items listed above may be incorporated by reference from other documents, including official statements of debt issues of the Authority or related public entities, which are available to the public on the MSRB's website or filed with the Securities and Exchange Commission. The Authority shall clearly identify each such other document so incorporated by reference.

SECTION 5. Reporting of Material Events.

(a) The Authority shall give notice, in accordance with subsection 5(b) below, of the occurrence of any of the following events with respect to the Bonds, if material:

1. Principal and interest payment delinquencies.
2. Non-payment related defaults.
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 or events affecting the tax-exempt status of the Bonds.
7. Modifications to rights of the Owners of the Bonds.
8. Bond calls.
9. Defeasances.
10. Release, substitution or sale of property securing repayment of the Bonds.
11. Rating changes.

(b) Whenever the Authority obtains knowledge of the occurrence of a Listed Event, the Authority shall as soon as possible determine if such an event would be material under applicable federal securities laws and if so, the Authority shall promptly file a notice of such occurrence with the MSRB.

SECTION 6. Filing Requirements. All documents required under this Disclosure Agreement to be provided to the MSRB shall be accompanied by indentifying information as prescribed by the MSRB and shall be made in electronic format through the Electronic Municipal Market Access (“EMMA”) website, currently located at <http://emma.msrb.org>.

SECTION 7. Termination of Reporting Obligation. The Authority’s obligations under this Disclosure Agreement shall terminate upon the legal defeasance in accordance with the terms of the Bonds, prior redemption or payment in full of all of the Bonds.

SECTION 8. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Agreement, the Authority may amend this Disclosure Agreement and any provision of this Disclosure Agreement may be waived if such amendment or waiver is permitted by the Rule, as evidenced by an opinion of counsel experienced in federal securities law to the effect that performance by the parties to this Disclosure Agreement as so amended will not cause the Disclosure Agreement to violate the Rule. The first time Annual Financial Information is filed after enactment of any amendment to or waiver of this Disclosure Agreement, the Authority shall explain, in narrative form, the reasons for the amendment or waiver and the impact of the change on the type of information being provided in the Annual Financial Information.

If the amendment provides for a change in the accounting principles to be followed in preparing financial statements, the Annual Financial Information for the year in which the change is made shall present a comparison between the financial statements or information prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles. The comparison shall include a qualitative discussion of the differences in the accounting principles and the impact of the change in the accounting principles on the presentation of the financial information in order to provide information to investors to enable them to evaluate the ability of the Authority to meet its obligations. To the extent reasonably feasible, the comparison shall also be quantitative.

SECTION 9. Default. In the event of a failure of the Authority to comply with any provision of this Disclosure Agreement any Owner of the Bonds may seek a court order for specific performance by the Authority of its obligations under this Disclosure Agreement. A default under this Disclosure Agreement shall not constitute a default with respect to the Bonds, 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 for specific performance of the Authority's obligations hereunder and not for money damages in any amount.

SECTION 10. Beneficiaries. This Disclosure Agreement shall inure solely to the benefit of the Owners of the Bonds from time to time, and shall create no rights in any other person or entity.

SECTION 11. Enforcement. This Disclosure Agreement shall be construed and interpreted in accordance with the laws of the State of Rhode Island (the "State"), and any suits and actions arising out of this Disclosure Agreement shall be instituted in a court of competent jurisdiction in the State; provided, however, that to the extent this Disclosure Agreement addresses matters of federal securities laws, including the Rule, this Disclosure Agreement shall be construed in accordance with such federal securities laws and official interpretations thereof.

Date: \_\_\_\_\_

RHODE ISLAND TURNPIKE AND  
BRIDGE AUTHORITY

By: \_\_\_\_\_  
Executive Director

**EXHIBIT A**

**NOTICE OF FAILURE TO FILE ANNUAL FINANCIAL INFORMATION**

Name of Issuer: Rhode Island Turnpike and Bridge Authority

Name of Issue: \$50,000,000 Revenue Bonds, Series 2010 A

Date of Issuance: April 8, 2010

NOTICE IS HEREBY GIVEN that the Issuer has not provided Annual Financial Information with respect to the above-named Bonds as required by the Continuing Disclosure Agreement of the Issuer dated \_\_\_\_\_. The Issuer anticipates that the Annual Financial Information will be filed by \_\_\_\_\_.

Dated: \_\_\_\_\_

RHODE ISLAND TURNPIKE AND  
BRIDGE AUTHORITY

By: \_\_\_\_\_

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