

**\$412,710,000****MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY****\$395,590,000****Toll System Revenue and Refunding Revenue Bonds, Series 2010A****\$17,120,000****Toll System Refunding Revenue Bonds, Series 2010B****Dated: Date of Delivery****Due: July 1, as shown on the inside cover**

The Miami-Dade County Expressway Authority Toll System Revenue and Refunding Revenue Bonds, Series 2010A (the "Series 2010A Bonds") and Toll System Refunding Revenue Bonds, Series 2010B (the "Series 2010B Bonds" and, together with the Series 2010A Bonds, the "Series 2010 Bonds") will be issued by the Miami-Dade County Expressway Authority (the "Authority") in fully registered form under the book-entry system maintained by The Depository Trust Company, New York, New York. See "DESCRIPTION OF THE SERIES 2010 BONDS - Book-Entry Only System" herein.

The Series 2010 Bonds will be issuable in denominations of \$5,000 and integral multiples thereof. Interest on the Series 2010 Bonds will accrue from the date of delivery of the Series 2010 Bonds and will be payable each January 1 and July 1, commencing January 1, 2011.

The Series 2010 Bonds shall be subject to redemption prior to maturity as described herein.

The Series 2010 Bonds are being issued by the Authority pursuant to the provisions of an Amended and Restated Trust Indenture dated as of June 15, 2002 from the Authority to The Bank of New York Mellon Trust Company, N.A., Jacksonville, Florida, as trustee (the "Trustee"), as previously supplemented and amended and as most recently supplemented by a Sixth Supplemental Trust Indenture to Amended and Restated Trust Indenture dated as of August 1, 2010 from the Authority to the Trustee (collectively, the "Indenture"). The Series 2010A Bonds are being issued to provide funds to (1) pay a portion of the Cost of certain Improvements to the System included in the Five-Year Work Program (as described herein) of the Authority in effect from time to time, including capitalized interest on the Series 2010 Bonds, (2) refund and defease all of the Outstanding \$49,600,000 principal amount of its \$68,200,000 original aggregate principal amount of Toll System Refunding Revenue Bonds, Series 2004A (the "Refunded 2004A Bonds"), (3) reimburse the Authority for a termination payment made to CFPI in connection with the termination of the CFPI Swap relating to the Refunded 2004A Bonds, as described herein, (4) fund a deposit to the Debt Service Reserve Fund in an amount equal to the increase in the Debt Service Reserve Fund Requirement resulting from the issuance of the Series 2010A Bonds, and (5) pay costs and expenses relating to the issuance of the Series 2010A Bonds, including a portion of the premium for the Policy described herein.

The Series 2010B Bonds are being issued to provide funds to (1) refund and defease all of the Outstanding \$17,275,000 principal amount of its \$150,000,000 original aggregate principal amount of Toll System Revenue Bonds, Series 2000, and (2) pay costs and expenses relating to the issuance of the Series 2010B Bonds, including a portion of the premium for the Policy.

The Series 2010 Bonds are payable from and secured by a pledge of and lien on the Revenues of the System and the moneys on deposit from time to time in certain of the Funds, Accounts and Subaccounts established under the Indenture on a parity with all other Bonds Outstanding from time to time, all as described herein.

**The principal of and interest on the Series 2010 Bonds are payable solely from the Revenues which are pledged to the payment thereof and the moneys on deposit from time to time in the Funds, Accounts and Subaccounts, in the manner and to the extent specified in the Indenture, and nothing in the Series 2010 Bonds or in the Indenture shall be construed as obligating the Authority to pay the principal thereof or the interest thereon except from the Revenues and the moneys on deposit from time to time in said Funds, Accounts and Subaccounts. The Authority has no taxing power. The Series 2010 Bonds do not constitute an indebtedness of Miami-Dade County, Florida (the "County"), the State of Florida (the "State") or any other political subdivision or agency thereof within the meaning of any constitutional or statutory provision or limitation. No Owner of any of the Series 2010 Bonds shall ever have the right to compel the exercise of the taxing power of the County or the State or any political subdivision or agency thereof, or the application of any funds other than funds pledged under the Indenture to the payment of the Series 2010 Bonds.**

The scheduled payment of principal of and interest on the Series 2010 Bonds, except for the Series 2010A Bonds maturing July 1, 2040, when due will be guaranteed under a municipal bond insurance policy (the "Policy") to be issued concurrently with the delivery of the Series 2010 Bonds by Assured Guaranty Municipal Corp. (formerly known as Financial Security Assurance Inc.).

Maturities, Principal Amounts, Interest Rates, Prices or Yields and Initial CUSIP Numbers for the Series 2010 Bonds are set forth on the inside cover page of this Official Statement.

In the opinion of Co-Bond Counsel, under existing statutes, regulations, rulings and court decisions and assuming continuing compliance with certain covenants and the accuracy of certain representations, (a) interest on the Series 2010 Bonds will be excludable from gross income for federal income tax purposes, (b) interest on the Series 2010A Bonds will not be an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations and such interest on the Series 2010A Bonds will not be taken into account in determining adjusted current earnings for the purpose of computing the alternative minimum tax imposed on certain corporations, (c) interest on the Series 2010B Bonds will not be an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations; however, such interest will be taken into account in determining adjusted current earnings for the purpose of computing the alternative minimum tax imposed on certain corporations, and (d) the Series 2010 Bonds and the income thereon will not be subject to taxation under the laws of the State of Florida, except estate taxes and taxes under Chapter 220, Florida Statutes, as amended, on interest, income or profits on debt obligations owned by corporations as defined therein. For a more complete discussion of the tax aspects, see "TAX MATTERS."

**THIS COVER PAGE CONTAINS CERTAIN INFORMATION FOR QUICK REFERENCE ONLY. IT IS NOT A SUMMARY OF THIS ISSUE. INVESTORS MUST READ THE ENTIRE OFFICIAL STATEMENT TO OBTAIN INFORMATION ESSENTIAL TO MAKING AN INFORMED INVESTMENT DECISION.**

The Series 2010 Bonds are offered for delivery when, as and if issued and received by the Underwriters, subject to the approving legal opinions of Greenberg Traurig, P.A., Miami, Florida, and Edwards & Associates, P.A., Miami, Florida, Co-Bond Counsel. Certain legal matters will be passed upon for the Authority by its General Counsel, Pamela S. Leslie, Esq., and for the Underwriters by their counsel, Squire, Sanders & Dempsey L.L.P., Miami, Florida. First Southwest Company, Aventura, Florida, is acting as Financial Advisor to the Authority. It is expected that the Series 2010 Bonds in definitive form will be available for delivery through the facilities of DTC in New York, New York on or about August 18, 2010.

**Citi****BofA Merrill Lynch****J.P. Morgan****Morgan Keegan & Company, Inc.****Morgan Stanley****Raymond James & Associates Inc.****Sterne, Agee & Leach, Inc.****Rice Financial****Siebert Brandford Shank & Co. LLC**

Dated: August 4, 2010

**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
TOLL SYSTEM REVENUE AND REFUNDING REVENUE BONDS, SERIES 2010A**

**\$57,105,000 SERIAL BONDS**

| <b>Maturity<br/>(July 1)</b> | <b>Principal<br/>Amount</b> | <b>Interest<br/>Rate</b> | <b>Yield</b> | <b>Initial<br/>CUSIP No.<sup>(1)</sup></b> |
|------------------------------|-----------------------------|--------------------------|--------------|--------------------------------------------|
| 2012                         | \$ 5,325,000                | 2%                       | 1.07%        | 59334KFL7                                  |
| 2013                         | 7,125,000                   | 2                        | 1.47         | 59334KFM5                                  |
| 2014                         | 4,640,000                   | 3                        | 1.74         | 59334KFN3                                  |
| 2015                         | 4,680,000                   | 3                        | 2.25         | 59334KFP8                                  |
| 2016                         | 4,620,000                   | 3                        | 2.69         | 59334KFQ6                                  |
| 2017                         | 7,065,000                   | 3                        | 3.03         | 59334KFR4                                  |
| 2018                         | 8,585,000                   | 4                        | 3.25         | 59334KFS2                                  |
| 2019                         | 15,065,000                  | 5                        | 3.44         | 59334KFT0                                  |

\$15,695,000, 4.9% Term Bonds due July 1, 2035, Price 100%, Initial CUSIP No.<sup>(1)</sup> 59334KFU7

\$41,935,000, 5% Term Bonds due July 1, 2035, Yield 4.89%<sup>(2)</sup>, Initial CUSIP No.<sup>(1)</sup> 59334KJV5

\$280,855,000, 5% Term Bonds due July 1, 2040, Yield 5.1%, Initial CUSIP No.<sup>(1)</sup> 59334KFW3<sup>(3)</sup>

**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
TOLL SYSTEM REFUNDING REVENUE BONDS, SERIES 2010B**

**\$17,120,000 SERIAL BONDS**

| <b>Maturity<br/>(July 1)</b> | <b>Principal<br/>Amount</b> | <b>Interest<br/>Rate</b> | <b>Yield</b> | <b>Initial<br/>CUSIP No.<sup>(1)</sup></b> |
|------------------------------|-----------------------------|--------------------------|--------------|--------------------------------------------|
| 2011                         | \$4,705,000                 | 3/4%                     | 0.52%        | 59334KFX1                                  |
| 2012                         | 4,695,000                   | 2                        | 1.07         | 59334KFY9                                  |
| 2013                         | 4,795,000                   | 2                        | 1.47         | 59334KFZ6                                  |
| 2014                         | 2,925,000                   | 3                        | 1.74         | 59334KGA0                                  |

(1) The Authority is not responsible for the use of CUSIP numbers, nor is a representation made as to their correctness. The CUSIP numbers are included solely for the convenience of the readers of this official statement.

(2) Priced to call date of July 1, 2020.

(3) Uninsured Series 2010 Bonds.

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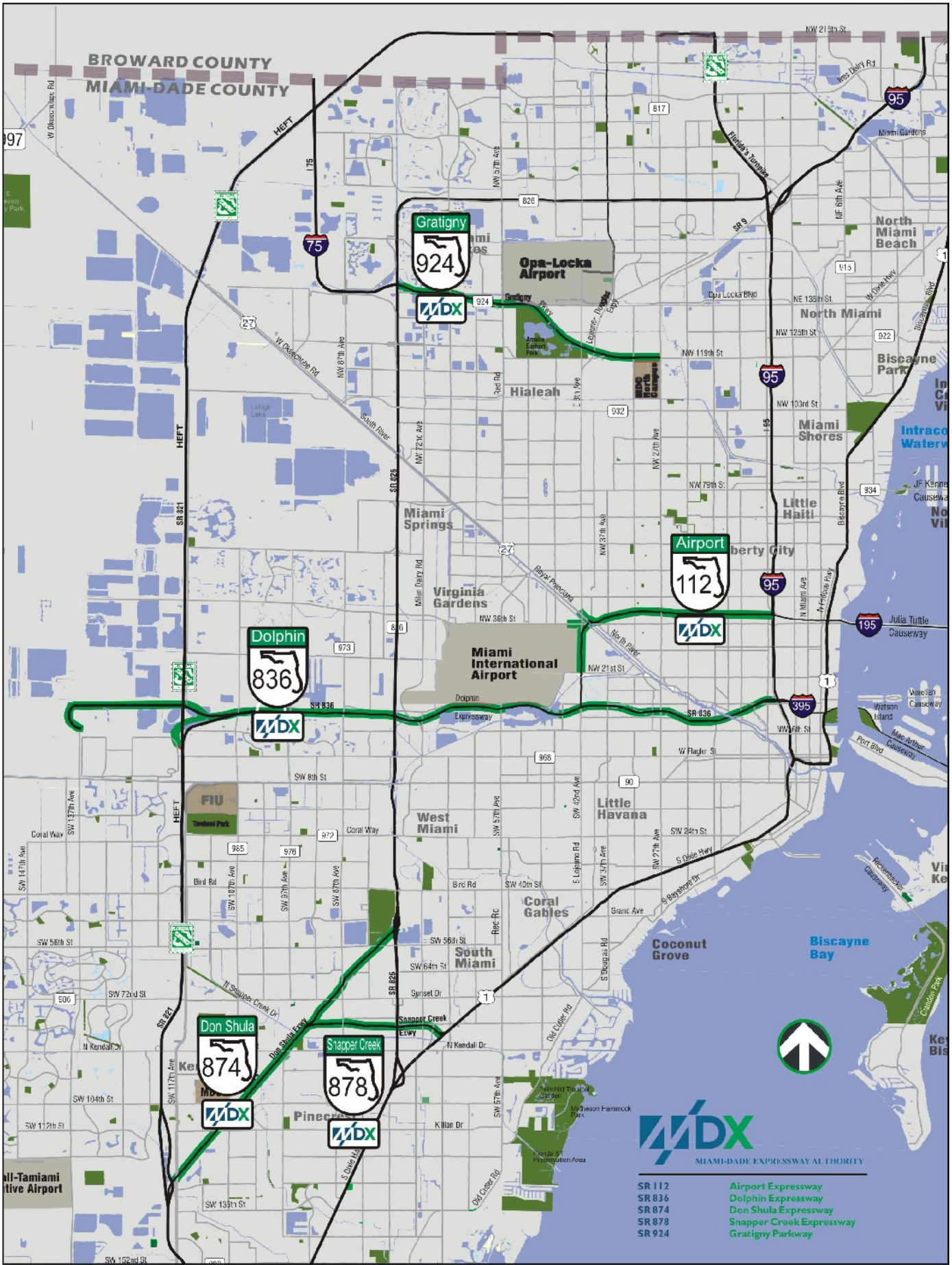
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BROWARD COUNTY  
MIAMI-DADE COUNTY

97

all-Tamiami  
ative Airport

Gratigny  
924  
MDX

Opa-Locka  
Airport

Hialeah

Miami  
Springs

Virginia  
Gardens

Miami  
International  
Airport

Dolphin  
836  
MDX

Don Shula  
874  
MDX

Snapper Creek  
878  
MDX

Airport  
112  
MDX

MDX  
MIAMI-DADE EXPRESSWAY AUTHORITY

- SR 112
- SR 836
- SR 874
- SR 878
- SR 924
- Airport Expressway
- Dolphin Expressway
- Don Shula Expressway
- Snapper Creek Expressway
- Gratigny Parkway



No dealer, broker, salesman or other person has been authorized by the Authority or the Underwriters to give any information or to make any representations other than those contained in this Official Statement and, if given or made, such other information or representations must not be relied upon as having been authorized by any of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the Series 2010 Bonds by any person in any state in which it is unlawful for such person to make such offer, solicitation or sale.

The information contained in this Official Statement has been obtained from the Authority, Assured Guaranty Municipal Corp. (formerly known as Financial Security Assurance Inc.) (the “Insurer”), DTC and other sources which are believed to be reliable, but is not guaranteed as to accuracy or completeness and is not to be construed as a representation by the Underwriters. Any statements made in this Official Statement involving matters of opinion or of estimates, whether or not so expressly stated, are set forth as such and not as representations of fact, and no representation is made that any of the estimates will be realized. The information and expressions of opinion contained herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder, shall under any circumstances, create any implication that there has been no change in the affairs of the Authority since the date hereof. This Official Statement is submitted in connection with the sale of securities referred to herein, and may not be reproduced or used, in whole or in part, for any other purpose.

The Insurer makes no representation regarding the Series 2010 Bonds or the advisability of investing in the Series 2010 Bonds. In addition, the Insurer has not independently verified, makes no representations regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding the Insurer supplied by the Insurer and presented under the heading “BOND INSURANCE FOR CERTAIN SERIES 2010 BONDS” and “APPENDIX H - Specimen Municipal Bond Insurance Policy” herein.

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, their respective 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.

The Series 2010 Bonds have not been registered under the Securities Act of 1933 nor has the Indenture been qualified under the Trust Indenture Act of 1939, in reliance upon exemptions contained in such acts. The registration or qualification of the Series 2010 Bonds under the securities laws of the jurisdictions in which they have been registered or qualified, if any, shall not be regarded as a recommendation thereof. Neither these jurisdictions nor any of their agencies have passed upon the merits of the Series 2010 Bonds or the accuracy or completeness of this Official Statement.

**IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE SERIES 2010 BONDS AT LEVELS ABOVE THAT**

**WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.**

Certain statements included or incorporated by reference in this Official Statement constitute “forward-looking statements.” Such statements generally are identifiable by the terminology used, such as “plan,” “expect,” “estimate,” “budget” or other similar words. The achievement of certain results or other expectations contained in such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements described to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Aside from its customary financial reporting activities, the Authority does not plan to issue any updates or revisions to those forward-looking statements if or when its expectations or events, conditions or circumstances on which such statements are based occur, subject to any contractual or legal responsibilities to the contrary.

References herein to laws, rules, regulations, resolutions, agreements, reports and other documents do not purport to be comprehensive or definitive. All references to such documents are qualified in their entirety by reference to the particular document, the full text of which may contain qualifications of and exceptions to statements made herein. Where full texts have not been included as appendices to this Official Statement they will be furnished on request.

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**OFFICIAL STATEMENT  
relating to**

**\$412,710,000**

**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY**

**\$395,590,000**

**Toll System Revenue and Refunding Revenue Bonds, Series 2010A**

**\$17,120,000**

**Toll System Refunding Revenue Bonds, Series 2010B**

**INTRODUCTION**

The purpose of this Official Statement, which includes the cover page and the Appendices hereto, is to furnish information in connection with the sale by the Miami-Dade County Expressway Authority (the "Authority") of \$395,590,000 aggregate principal amount of its Miami-Dade County Expressway Authority Toll System Revenue and Refunding Revenue Bonds, Series 2010A (the "Series 2010A Bonds") and of \$17,120,000 aggregate principal amount of its Miami-Dade County Expressway Authority Toll System Refunding Revenue Bonds, Series 2010B (the "Series 2010B Bonds" and, together with the Series 2010A Bonds, the "Series 2010 Bonds"). The Series 2010 Bonds are being issued pursuant to Chapter 348, Part I, Florida Statutes, as amended (together with any successor provisions of law, the "Act"), a Resolution of the Authority dated June 29, 2010 authorizing, among other things, the issuance of the Series 2010 Bonds, and under and pursuant to an Amended and Restated Trust Indenture dated as of June 15, 2002 (the "Amended and Restated Indenture"), from the Authority to The Bank of New York Mellon Trust Company, N.A. (f/k/a The Bank of New York Trust Company, N.A.), successor in trust to The Bank of New York, as trustee (the "Trustee"), as previously supplemented and amended (collectively, the "Original Indenture"), and as most recently supplemented by a Sixth Supplemental Trust Indenture to Amended and Restated Trust Indenture dated as of August 1, 2010, from the Authority to the Trustee (the "Sixth Supplemental Indenture" and, together with the Original Indenture, the "Indenture"). The Bank of New York Mellon Trust Company, N.A., Jacksonville, Florida, will also act as Bond Registrar and Paying Agent for the Series 2010 Bonds. Capitalized terms used but not defined herein have the same meaning as ascribed thereto in the Indenture unless the context would clearly otherwise indicate. See "APPENDIX E - The Amended and Restated Indenture and Form of Sixth Supplemental Indenture" herein. As used in this Official Statement, the term "Fiscal Year" followed by a year designation shall mean the Fiscal Year commencing on July 1 of the previous year and ending on June 30 of such year.

The Authority has previously issued under the Original Indenture various Series of Bonds, \$912,898,330 aggregate principal amount of which were Outstanding as of July 1, 2010 (the "Currently Outstanding Bonds"). The Indenture permits the issuance of Additional Bonds, Completion Bonds and Refunding Bonds to be secured and payable on a parity with the Currently Outstanding Bonds (together with the Currently Outstanding Bonds and the Series 2010 Bonds, the "Bonds") upon the satisfaction of certain conditions. The Series 2010 Bonds

are being issued as Additional Bonds and Refunding Bonds under the Indenture. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2010 BONDS” herein.

The Series 2010A Bonds are being issued to provide funds to (1) pay a portion of the Cost of certain Improvements to the System included in the Five-Year Work Program (as described herein) of the Authority in effect from time to time (the “Series 2010 Project”), including capitalized interest on the Series 2010A Bonds, (2) refund and defease all of the Outstanding \$49,600,000 principal amount of its \$68,200,000 original aggregate principal amount of Toll System Refunding Revenue Bonds, Series 2004A (the “Refunded 2004A Bonds”), (3) reimburse the Authority for a termination payment made to Citigroup Financial Products Inc. (“CFPI”) in connection with the termination of the CFPI Swap relating to the Refunded 2004A Bonds, as described herein, (4) fund a deposit to the Debt Service Reserve Fund in an amount equal to the increase in the Debt Service Reserve Fund Requirement resulting from the issuance of the Series 2010A Bonds, and (5) pay costs and expenses relating to the issuance of the Series 2010A Bonds, including a portion of the premium for the Policy (defined below). See “PLAN OF FINANCE” herein.

The Series 2010B Bonds are being issued to provide funds to (1) refund and defease all of the Outstanding \$17,275,000 principal amount of its \$150,000,000 original aggregate principal amount of Toll System Revenue Bonds, Series 2000 (the “Refunded 2000 Bonds” and, together with the Refunded 2004A Bonds, the “Refunded Bonds”), and (2) pay costs and expenses relating to the issuance of the Series 2010B Bonds, including a portion of the premium for the Policy. See “PLAN OF FINANCE” herein.

The Authority was created in December 1994 by the Miami-Dade County Commission (the “Commission”) to establish local control over Toll revenues and to ease traffic congestion on five major expressways in Miami-Dade County, Florida (the “County”). The five expressways that comprise the Authority’s system are the Gratigny Parkway, the East-West (Dolphin) Expressway, the Airport Expressway, the South Dade (Don Shula) Expressway and the Snapper Creek Expressway (collectively, the “System”). The Authority assumed control of the System from the State of Florida Department of Transportation (“Department”) on December 10, 1996, pursuant to a Transfer Agreement dated December 10, 1996 entered into between the Department and the Authority (the “Transfer Agreement”). The Authority’s primary source of Revenues is Tolls. Pursuant to Section 20.23(2)(b)8, Florida Statutes, since 2008 all Florida toll authorities, including the Authority, are subject to certain oversight by the Florida Transportation Commission (“FTC”). The FTC has no control over the Authority’s Toll rates. See “THE SYSTEM” herein.

The Authority has begun implementation of Open Road Tolling (“ORT”) on the System. ORT is essentially a toll system without tollbooths, where traffic flows unimpeded at highway speeds. Tolls are collected electronically through a transponder or by video scanning of a license plate. See “THE SYSTEM - Open Road Tolling” and Section 4 of “APPENDIX B - Report of General Engineering Consultant (HNTB)” herein for a more detailed description of ORT, payment under ORT and the ORT implementation schedule for the System.

The governing body of the Authority consists of thirteen appointed members. Seven members are appointed by the Commission and five are appointed by the Governor of the State

of Florida. The District Secretary of District VI of the Department serves as an ex-officio voting member of the Authority. See “THE AUTHORITY” herein.

The Series 2010 Bonds are payable from and secured by a pledge of and lien on the Revenues of the System and the moneys on deposit from time to time in certain of the Funds, Accounts and Subaccounts established under the Indenture on a parity with all other Bonds Outstanding from time to time under the Indenture. While no Event of Default has occurred and is continuing under the Indenture, Revenues are required to be applied to the payment of Operation and Maintenance Expenses prior to their application to the payment of the Bonds. “Revenues” is defined in the Indenture as all Tolls, revenues, rates, fees, charges and rentals received by or accrued to the Authority in connection with or as a result of its ownership or operation of the System, including any Hedge Receipts, any revenues (including revenues that may be derived from taxes) pledged as part of the Trust Estate at any time after the date of the Indenture and any investment income derived from monies held on deposit in the Funds or Accounts (other than the Rebate Fund) created under the Indenture; and, except for the purpose of calculating Revenues in connection with certain certifications to be given with respect to the issuance of Additional Bonds under the Indenture, any amounts transferred or to be transferred from the Rate Stabilization Account to the Revenue Fund. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2010 BONDS” herein.

The Authority also has certain other obligations payable from Revenues. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2010 BONDS – Other Indebtedness and – Interest Rate Swaps” and “THE SYSTEM” herein.

The scheduled payment of principal of and interest on the Series 2010 Bonds, except for the Series 2010A Bonds maturing July 1, 2040 (the “Uninsured Series 2010 Bonds”), when due will be guaranteed under a municipal bond insurance policy (the “Policy”) to be issued concurrently with the delivery of the Series 2010 Bonds by Assured Guaranty Municipal Corp. (formerly known as Financial Security Assurance Inc.) (the “Insurer” or “Assured Guaranty Municipal Corp.”).

The Authority has determined to solicit the requisite consents to amend the Original Indenture to provide that certain increases in projected Revenues are taken into account for purposes of the issuance of Additional Bonds and to modify parameters relating to the deposit of Reserve Facilities in the Debt Service Reserve Fund, as more particularly set forth in the Sixth Supplemental Indenture. See “PROPOSED AMENDMENTS TO THE ORIGINAL INDENTURE” herein.

Complete descriptions of the terms and conditions of the Series 2010 Bonds are set forth in the Indenture. A copy of the Amended and Restated Indenture, together with the Form of the Sixth Supplemental Indenture, is attached hereto as Appendix E. The descriptions of the Authority, the Series 2010 Bonds, the Indenture, the Policy and any other matters or documents contained herein are not comprehensive or definitive. All references herein to such documents and statements are qualified by the entire, actual content of such documents and statements. Copies of such documents and statements referred to herein that are not included in their entirety in this Official Statement may be obtained as described under “MISCELLANEOUS” herein.

## PLAN OF FINANCE

### General

The Series 2010A Bonds are being issued to provide funds to (1) pay the Cost of the Series 2010 Project, including capitalized interest on the Series 2010A Bonds, (2) refund and defease the Refunded 2004A Bonds, (3) reimburse the Authority for a termination payment made to CFPI in connection with the termination of the CFPI Swap relating to the Refunded 2004A Bonds, (4) fund a deposit to the Debt Service Reserve Fund in an amount equal to the increase in the Debt Service Reserve Fund Requirement resulting from the issuance of the Series 2010A Bonds, and (5) pay costs and expenses relating to the issuance of the Series 2010A Bonds, including a portion of the premium for the Policy. See “ESTIMATED SOURCES AND USES OF FUNDS.” See also “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2010 BONDS - Interest Rate Swaps” herein for a description of the CFPI Swap.

The Series 2010B Bonds are being issued to provide funds to (1) refund and defease the Refunded 2000 Bonds, and (2) pay costs and expenses relating to the issuance of the Series 2010B Bonds, including a portion of the premium for the Policy.

### Five-Year Work Program

The Series 2010 Project is part of the Authority’s current Five-Year Work Program. The current Five-Year Work Program includes the following categories and estimated total costs.

#### Fiscal Year 2011-2015 Five-Year Work Program Categories

| <u>Program Category</u>                     | <u>Number of<br/>Projects</u> | <u>Total</u>         |
|---------------------------------------------|-------------------------------|----------------------|
| Existing System Improvements <sup>(1)</sup> | 16                            | \$310,683,000        |
| System Expansion Projects <sup>(2)</sup>    | 6                             | 93,636,000           |
| Facility Improvements <sup>(3)</sup>        | 30                            | 69,111,000           |
| New Expressway <sup>(4)</sup>               | 3                             | 15,276,000           |
| Contingency Reserve                         |                               | <u>5,400,000</u>     |
| <b>Total</b>                                | <b>55</b>                     | <b>\$494,106,000</b> |

(1) Includes widening or reconstruction of existing System roadways.

(2) Includes construction of new roadway segments or new alignments of roadway segments to become part of the System.

(3) Includes non-routine maintenance and minor roadway, Toll plaza and Intelligent Transportation System (ITS) projects throughout the System.

(4) Includes new alignments of designated State Roads that will become part of the System.

For a more detailed description of the Five-Year Work Program, a portion of which comprises the Series 2010 Project, see “APPENDIX B – Report of General Engineering Consultant (HNTB)” herein.

The Authority plans to fund the Five-Year Work Program from approximately \$307,500,000.00 of proceeds of the Series 2010A Bonds, together with available funds from the

Renewal and Replacement Fund, available Revenues and proceeds of subordinate loans and future Additional Bonds.

### **Plan of Refunding**

The Refunded 2004A Bonds, set forth in the table below, are being refunded in connection with the termination of the CFPI Swap. A portion of the proceeds of the Series 2010A Bonds will be used to refund the Refunded 2004A Bonds. To effect the refunding of the Refunded 2004A Bonds, the Authority will enter into an Escrow Deposit Trust Agreement (the “2004A Escrow Deposit Agreement”), on or prior to the delivery of the Series 2010A Bonds, with The Bank of New York Mellon Trust Company, N.A., as escrow agent (the “Escrow Agent”). Pursuant to the terms of the 2004A Escrow Deposit Agreement, the Authority will deposit said proceeds, together with other available moneys of the Authority, in an escrow deposit trust fund (the “2004A Escrow Fund”) held by the Escrow Agent. Such proceeds and other available moneys on deposit in the 2004A Escrow Fund will be sufficient to pay all principal of and interest on the Refunded 2004A Bonds to their redemption date. The Refunded 2004A Bonds will be redeemed on September 1, 2010, at a redemption price of 100% of the principal amount thereof.

| <u>Principal Amount<br/>to be Refunded</u> | <u>Interest<br/>Rate</u> | <u>Maturity<br/>Date</u> | <u>Redemption<br/>Price</u> | <u>Redemption<br/>Date</u> |
|--------------------------------------------|--------------------------|--------------------------|-----------------------------|----------------------------|
| \$ 3,900,000                               | 5.462%                   | 07/01/2011               | 100%                        | 09/01/2010                 |
| 4,100,000                                  | 5.462                    | 07/01/2012               | 100                         | 09/01/2010                 |
| 4,400,000                                  | 5.462                    | 07/01/2013               | 100                         | 09/01/2010                 |
| 4,700,000                                  | 5.462                    | 07/01/2014               | 100                         | 09/01/2010                 |
| 4,900,000                                  | 5.462                    | 07/01/2015               | 100                         | 09/01/2010                 |
| 5,400,000                                  | 5.462                    | 07/01/2016               | 100                         | 09/01/2010                 |
| 5,600,000                                  | 5.462                    | 07/01/2017               | 100                         | 09/01/2010                 |
| 6,100,000                                  | 5.462                    | 07/01/2018               | 100                         | 09/01/2010                 |
| 10,500,000                                 | 5.462                    | 07/01/2019               | 100                         | 09/01/2010                 |

A portion of the proceeds of the Series 2010B Bonds will be used to refund the Refunded 2000 Bonds, set forth in the table below, in order to achieve debt service savings for the Authority. To effect the refunding of the Refunded 2000 Bonds, the Authority will enter into an Escrow Deposit Trust Agreement (the “2000 Escrow Deposit Agreement”), on or prior to the delivery of the Series 2010B Bonds, with the Escrow Agent. Pursuant to the terms of the 2000 Escrow Deposit Agreement, the Authority will deposit said proceeds, together with other available moneys of the Authority, in an escrow deposit trust fund (the “2000 Escrow Fund”) held by the Escrow Agent. Such proceeds and other available moneys on deposit in the 2000 Escrow Fund will be sufficient to pay all principal of, redemption premium, and interest on the Refunded 2000 Bonds to their redemption date. The Refunded 2000 Bonds will be redeemed on September 2, 2010, at a redemption price of 101% of the principal amount thereof.

| <u>Principal Amount<br/>to be Refunded</u> | <u>Interest<br/>Rate</u> | <u>Maturity<br/>Date</u> | <u>Redemption<br/>Price</u> | <u>Redemption<br/>Date</u> |
|--------------------------------------------|--------------------------|--------------------------|-----------------------------|----------------------------|
| \$3,145,000                                | 6.0%                     | 07/01/2011               | 101%                        | 09/02/2010                 |
| 810,000                                    | 5.4                      | 07/01/2011               | 101                         | 09/02/2010                 |
| 3,195,000                                  | 6.0                      | 07/01/2012               | 101                         | 09/02/2010                 |
| 990,000                                    | 5.5                      | 07/01/2012               | 101                         | 09/02/2010                 |
| 4,265,000                                  | 6.0                      | 07/01/2013               | 101                         | 09/02/2010                 |
| 170,000                                    | 5.6                      | 07/01/2013               | 101                         | 09/02/2010                 |
| 3,780,000                                  | 6.0                      | 07/01/2014               | 101                         | 09/02/2010                 |
| 920,000                                    | 5.7                      | 07/01/2014               | 101                         | 09/02/2010                 |

By deposit of such proceeds and other available moneys with the Escrow Agent pursuant to each of the 2004A Escrow Deposit Agreement and the 2000 Escrow Deposit Agreement as described above, it is the opinion of Co-Bond Counsel (rendered in reliance upon the verifications of Causey Demgen & Moore Inc. described under “VERIFICATION OF MATHEMATICAL COMPUTATIONS” herein) that the Refunded Bonds shall be deemed paid in accordance with, and no longer Outstanding under, the provisions of the Indenture. The proceeds and other available moneys held by the Escrow Agent will not be available to pay the Series 2010 Bonds.

### **Termination of CFPI Swap**

The Authority terminated the CFPI Swap on August 3, 2010 and paid a termination payment to CFPI from available funds on August 6, 2010. The Authority will reimburse itself the amount paid to CFPI for terminating the CFPI Swap from a portion of the proceeds of the Series 2010A Bonds. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2010 BONDS - Interest Rate Swaps” and “ESTIMATED SOURCES AND USES OF FUNDS” herein.

### **DESCRIPTION OF THE SERIES 2010 BONDS**

Reference is made to the Series 2010 Bonds themselves for the complete text thereof and to the Indenture, and the discussion herein is qualified by such references.

The Series 2010 Bonds will be dated their date of delivery, will be issued in registered form in denominations of \$5,000 and integral multiples thereof under the book-entry only system described below and will bear interest at the rates and will mature on the dates and in the principal amounts set forth on the inside cover page of this Official Statement. Interest on the Series 2010 Bonds, which will accrue on the basis of a 360-day year of twelve (12) 30-day months, will be payable each January 1 and July 1, commencing January 1, 2011.

### **Book-Entry Only System**

The Depository Trust Company, New York, New York (“DTC”), will act as securities depository for the Series 2010 Bonds. The Series 2010 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 security

certificate will be issued for each maturity of the Series 2010 Bonds set forth in the inside cover page of this Official Statement, in the aggregate principal amount of such Series 2010 Bonds, and will be deposited with DTC.

DTC, the world's largest depository, is a limited purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that its 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, thereby eliminating 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 Direct and Indirect 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 Series 2010 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2010 Bonds on DTC's records. The ownership interest of each actual purchaser of each Series 2010 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 Participants through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2010 Bonds are to be accomplished by entries made on the books of Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Series 2010 Bonds, except in the event that use of the book-entry system for the Series 2010 Bonds is discontinued.

To facilitate subsequent transfers, all Series 2010 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 Bonds with DTC and their registration in the name of Cede & Co., or such other DTC nominee, effect no change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2010 Bonds; DTC's records reflect only the identity of the Direct



Participants to whose accounts such Series 2010 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of the Series 2010 Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 2010 Bonds, such as redemptions, tenders, defaults and proposed amendments to the documents securing the Series 2010 Bonds. For example, Beneficial Owners of the Series 2010 Bonds may wish to ascertain that the nominee holding the Series 2010 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 Bond Registrar and request that copies of notices are provided directly to them.

Redemption notices shall be sent to DTC. If less than all of a Series of Series 2010 Bonds are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant of such Series to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Series 2010 Bonds unless authorized by a Direct Participant in accordance with DTC's Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Authority as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2010 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on the Series 2010 Bonds will be made to Cede & Co., or to such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Authority or the Paying Agent on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Authority, or the Paying Agent, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of the redemption price, principal and interest to DTC is the responsibility of the Authority or the Paying Agent, and disbursement of such payments to Direct Participants shall be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners shall be the responsibility of Direct and Indirect Participants.

**NEITHER THE AUTHORITY NOR THE TRUSTEE WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO THE PARTICIPANTS OR THE BENEFICIAL OWNERS WITH RESPECT TO (1) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC OR ANY PARTICIPANT, (2) THE PAYMENT BY DTC OR ANY PARTICIPANT OF ANY AMOUNT DUE TO ANY BENEFICIAL OWNER IN RESPECT OF THE PRINCIPAL AMOUNT OF OR INTEREST ON THE**

**SERIES 2010 BONDS, (3) THE DELIVERY BY DTC OR ANY PARTICIPANT OF ANY NOTICE TO ANY BENEFICIAL OWNER WHICH IS PERMITTED OR REQUIRED TO BE GIVEN TO BONDHOLDERS UNDER THE TERMS OF THE INDENTURE, OR (4) ANY CONSENT GIVEN OR OTHER ACTION TAKEN BY CEDE & CO., AS THE NOMINEE OF DTC, AS REGISTERED OWNER. SO LONG AS CEDE & CO. IS THE REGISTERED OWNER OF THE SERIES 2010 BONDS, AS NOMINEE OF DTC, REFERENCES IN THIS OFFICIAL STATEMENT TO THE BONDHOLDERS OR REGISTERED OWNERS OF THE SERIES 2010 BONDS SHALL MEAN CEDE & CO. AND SHALL NOT MEAN THE BENEFICIAL OWNERS OF THE SERIES 2010 BONDS.**

DTC may discontinue providing its services as securities depository with respect to the Series 2010 Bonds at any time by giving reasonable notice to the Authority or the Paying Agent. Under such circumstances, in the event that a successor securities depository is not obtained, Series 2010 Bond certificates are required to be printed and delivered. The Authority may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, Series 2010 Bond certificates will be printed and delivered to DTC. Thereafter, Series 2010 Bond certificates may be transferred and exchanged as described in the Indenture.

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.

### **Redemption of Series 2010 Bonds**

Optional Redemption. Except as described below under "Redemption Upon the Occurrence of Certain Events," the Series 2010 Bonds maturing on or prior to July 1, 2020 are not subject to optional redemption. The Series 2010 Bonds maturing after July 1, 2020 are subject to optional redemption prior to their stated maturity, at the option of the Authority, in whole or in part, and if in part, in any order of maturity selected by the Authority and by lot within a maturity, on any date on or after July 1, 2020, at a redemption price equal to 100% of the principal amount thereof plus accrued interest thereon to the redemption date, without premium.

Optional Redemption Procedures. Prior to notice being given to the Owners of the Series 2010 Bonds of any optional redemption of Series 2010 Bonds, either (A) there shall be deposited with the Trustee an amount sufficient to pay the principal amount of the Series 2010 Bonds subject to redemption, plus accrued interest to the redemption date, or (B) such notice shall state that the redemption is conditioned on the receipt of moneys for such redemption by the Trustee on or prior to the redemption date. In the event that a conditional notice of redemption is given and such moneys are not timely received, the redemption for which such notice was given shall not be undertaken. Amounts deposited as described in clause (A) above shall be kept by the Trustee in a separate account in the Sinking Fund (which the Trustee is authorized and directed to create under the Indenture) and segregated from all other moneys deposited under the Indenture and shall be held uninvested unless invested at the direction of an Authorized Officer only in Government Obligations that mature on or before the redemption date.

## Mandatory Redemption

The Series 2010A Term Bonds maturing on July 1, 2035 bearing interest at a rate of 4.9%, July 1, 2035 bearing interest at a rate of 5%, and July 1, 2040 are subject to mandatory redemption prior to maturity at a redemption price equal to 100% of the principal amount thereof plus accrued interest thereon to the redemption date, by application by the Trustee of funds on deposit to the credit of the Sinking Fund, on July 1 in the years and in the principal amounts as follows:

| <u>2035 Term Bonds at 4.9%</u> |                         | <u>2035 Term Bonds at 5%</u> |                         |
|--------------------------------|-------------------------|------------------------------|-------------------------|
| <u>Year</u>                    | <u>Principal Amount</u> | <u>Year</u>                  | <u>Principal Amount</u> |
| 2034                           | \$ 625,000              | 2034                         | \$13,315,000            |
| 2035*                          | 15,070,000              | 2035*                        | 28,620,000              |

| <u>2040 Term Bonds</u> |                         |
|------------------------|-------------------------|
| <u>Year</u>            | <u>Principal Amount</u> |
| 2036                   | \$45,860,000            |
| 2037                   | 48,150,000              |
| 2038                   | 50,565,000              |
| 2039                   | 53,095,000              |
| 2040*                  | 83,185,000              |

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\*Final Maturity

Redemption Upon the Occurrence of Certain Events. The Series 2010 Bonds may be redeemed in whole or in part in such amounts and of such maturities as the Authority shall direct at any time at a redemption price equal to 100% of the principal amount thereof plus accrued interest, if any, to the redemption date upon receipt by the Trustee of a written notice from the Authority stating that either of the following events has occurred: (1) all or substantially all of the System has been damaged or destroyed and the Authority shall determine that it is not practicable or desirable to rebuild, repair and restore the same; or (2) all or substantially all of the System has been condemned or such use or control thereof has been taken by eminent domain as to render the same unsatisfactory to the Authority for continued operation.

Notice of Redemption. At least thirty (30) days, but not more than forty-five (45) days, before a redemption date of any Series 2010 Bonds, the Trustee shall cause a notice of such redemption to be: (a) filed with any Paying Agent; (b) sent by telefacsimile followed by first class mail to registered securities depositories and to national information services that disseminate redemption notices and (c) mailed, postage prepaid, to each Owner of the Series 2010 Bonds subject to such redemption at its address as it appears on the registration books kept by the Bond Registrar. Failure to file any such notice with any Paying Agent or to mail such notice to any Series 2010 Bondholder or to any securities depository or national information service or any defect therein shall not affect the validity of the proceedings for redemption

except to the extent that a Series 2010 Bondholder is prejudiced thereby, and then, only with respect to such Series 2010 Bondholder.

Each such notice shall set forth: (a) the date fixed for redemption; (b) the redemption price to be paid; (c) the CUSIP numbers and the certificate numbers of the Series 2010 Bonds to be redeemed; (d) the name and address of the Paying Agent for the Series 2010 Bonds; (e) the dated date, interest rate and maturity date of the Series 2010 Bonds subject to redemption; (f) if less than all of the Series 2010 Bonds then Outstanding are called for redemption, the amounts of the Series 2010 Bonds to be redeemed; and (g) the name, address and telephone number of a contact for such redemption.

If a portion of an Outstanding Series 2010 Bond is selected for redemption, the Owner or his attorney or legal representative must present and surrender such Series 2010 Bond to the Bond Registrar for payment of the redemption price of the portion thereof called for redemption, and the Authority will execute and the Bond Registrar will authenticate and deliver to or upon the order of such Owner or his legal representative, without charge therefor, for the unredeemed portion of the principal amount of the Series 2010 Bond so surrendered, a Series 2010 Bond of the same stated maturity and bearing interest at the same rate.

WHILE THE SERIES 2010 BONDS ARE HELD UNDER THE BOOK-ENTRY ONLY SYSTEM DESCRIBED ABOVE, NOTICES OF REDEMPTION WILL BE MAILED SOLELY TO CEDE & CO., AS THE OWNER OF THE SERIES 2010 BONDS.

Effect of Calling for Redemption. If money or Escrow Securities, or a combination of both sufficient to pay the redemption price of the Series 2010 Bonds to be redeemed are held by the Trustee in trust for the Owners of Series 2010 Bonds to be redeemed on the date fixed for redemption, then interest on the Series 2010 Bonds called for redemption will cease to accrue; such Series 2010 Bonds will cease to be entitled to any benefits or security under the Indenture or to be deemed Outstanding, and the Owners of such Series 2010 Bonds will have no rights in respect thereof except to receive payment of the redemption price. Series 2010 Bonds and portions of Series 2010 Bonds for which irrevocable instructions to pay on one or more specified dates or to call for redemption at the redemption date have been given to the Trustee in form satisfactory to it will not thereafter be deemed to be Outstanding under the Indenture and will cease to be entitled to the security of or any rights under the Indenture, other than rights to receive payment of the redemption price thereof, to be given notice of redemption in the manner provided in the Indenture, and, to the extent provided in the Indenture, to receive Series 2010 Bonds for any unredeemed portions of Series 2010 Bonds, if money or Escrow Securities, or a combination of both, sufficient to pay the redemption price of such Series 2010 Bonds or portions thereof, are held in separate accounts by the Trustee in trust for the Owners of such Series 2010 Bonds.

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

### **Pledge of Revenues**

In order to provide for the acquisition, construction, installation, equipping, operation and maintenance of the System and to secure the payment of the principal of, premium, if any, and

interest on all Bonds issued under the Indenture, and to reimburse any Credit Provider, any Liquidity Provider and any Reserve Facility Provider for amounts owed them, but subject to the limitations of the Indenture, the Authority has assigned, pledged and granted pursuant to the Indenture a lien upon and a security interest in all of its right, title and interest in the following described property, rights and interests (collectively, the “Trust Estate”) to the Trustee:

- (a) the Revenues;
- (b) the Transfer Agreement; provided, that such assignment made shall not impair or diminish any obligation of the Authority under the provisions of the Transfer Agreement;
- (c) all Funds, Accounts and Subaccounts established pursuant to the Indenture (other than the Rebate Fund) and all moneys and securities and earnings in such funds, accounts and subaccounts; and
- (d) any and all other contracts, instruments, moneys, revenues or sources of revenues (including, without limitation, pledged tax receipts of any type and from any source), securities and property furnished from time to time to the Trustee by the Authority or on behalf of the Authority or by any other persons to be held by the Trustee as part of the Trust Estate under the terms of the Indenture, which may be pledged at the time of issuance of any Series of Bonds for the payment of all Bonds or specific Series of Bonds. No such other contracts, instruments, moneys, revenues or sources of revenues have been pledged prior to the issuance of the Series 2010 Bonds or are being pledged at the time of issuance of the Series 2010 Bonds.

**The principal of and interest on the Series 2010 Bonds are payable solely from the Revenues which are pledged to the payment thereof and the moneys on deposit from time to time in the Funds, Accounts and Subaccounts, in the manner and to the extent specified in the Indenture, and nothing in the Series 2010 Bonds or in the Indenture shall be construed as obligating the Authority to pay the principal and the interest thereon except from the Revenues and the moneys on deposit from time to time in said Funds, Accounts and Subaccounts. The Authority has no taxing power. The Series 2010 Bonds do not constitute an indebtedness of the County, the State of Florida (the “State”) or any other political subdivision or agency thereof within the meaning of any constitutional or statutory provision or limitation. No Owner of any of the Series 2010 Bonds shall ever have the right to compel the exercise of the taxing power of the County or the State or any political subdivision or agency thereof, or the application of any funds other than the funds pledged under the Indenture to the payment of the Series 2010 Bonds.**

The Series 2010 Bonds are secured under the Indenture on a parity with all other Bonds Outstanding from time to time under the Indenture.

#### **Toll Covenant**

“Tolls” are defined as all tolls, fares, incomes, receipts, rents, franchises, charges and all returns or monies of an income nature derived by or for the benefit of the Authority from users of the System.

The Authority has covenanted in the Indenture:

(a) that it will continue in effect the present schedule of Tolls for traffic using the System until such schedule shall be increased, decreased, or otherwise changed, revised or reconfigured as provided in the Indenture,

(b) that it will maintain (x) any recurring revenue stream pledged pursuant to clause (d) of the Trust Estate (as described above) with respect to all Bonds or a particular Series of Bonds and (y) the Tolls for traffic using the System, in each case, at such lawful levels, as shall, in the opinion of the Consulting Engineer from time to time, result in producing Revenues sufficient in each Fiscal Year to provide an amount of Net Revenues in each Fiscal Year equal to not less than the greater of (i) one hundred twenty per centum (120%) of the Principal and Interest Requirements for such Fiscal Year on account of all Bonds then Outstanding and (ii) one hundred percent (100%) of the sum in such Fiscal Year of (A) any deficiency in the Debt Service Reserve Fund Requirement applicable to all Bonds then Outstanding and any amount scheduled to become due and payable to a Reserve Facility Provider in such Fiscal Year as a result of a draw or claim upon a Reserve Facility issued by such Reserve Facility Provider, (B) the Principal and Interest Requirements for such Fiscal Year on account of all Bonds Outstanding, (C) the deposits to the Renewal and Replacement Fund for such Fiscal Year required by the provisions of the Indenture, and (D) the amount required to pay any current or past due Annual Repayment Requirements\* due the Department under the Indenture and the Transfer Agreement. Notwithstanding the foregoing, Net Revenues in each such Fiscal Year, without regard to any amounts transferred or to be transferred from the Rate Stabilization Account to the Revenue Fund, shall be equal to not less than one hundred per centum (100%) of the Principal and Interest Requirements for such Fiscal Year on account of all Bonds then Outstanding, and

(c) that on or before January 1 and July 1 of each Fiscal Year, it will review its financial condition and estimate and determine whether Net Revenues for such year are reasonably expected to be sufficient to enable the Authority to comply with clause (b) above and file with the Trustee a copy of its resolution making such determination (“Determination”). If the Determination evidences the Authority’s determination that Net Revenues are or are anticipated to be inadequate to comply with clause (b) above, the Authority will forthwith request the Consulting Engineer to make its recommendations to the Authority, in writing, with a copy to the Trustee, as to a revision of the schedule of Tolls, rates, fees, rentals and other charges and any changes in methods of operation to provide sufficient Net Revenues to enable the Authority to comply with clause (b) above.

Anything in the Indenture to the contrary notwithstanding, if the Authority shall comply with all recommendations of the Consulting Engineer on or before the expiration of eight months from the date of filing the Determination with the Trustee, the failure to meet the requirements of said clause (b) in any Fiscal Year shall not, in and of itself, constitute an Event of Default.

Notwithstanding anything in the Indenture to the contrary, (i) the Authority may remove Tolls when necessary for public safety or otherwise in an emergency situation; and (ii) the

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\* For a description of the Annual Repayment Requirements due the Department under the Indenture and the Transfer Agreement, see “THE SYSTEM - Department Agreements” and “APPENDIX E - The Amended and Restated Indenture and Form of Sixth Supplemental Indenture” herein.

Authority may relocate Toll collection facilities and may replace two-way Tolls with one-way Tolls so long as it remains in compliance with the provisions of the Indenture, including the above covenants with respect to Tolls.

Notwithstanding any of the foregoing provisions, agreements and contracts for the operation and maintenance of the System in effect on the date of the Indenture shall not be subject to revisions except in accordance with their terms, and the Authority may enter into new agreements or contracts for the operation and maintenance of the System on such terms and for such periods of time as it shall determine to be proper.

“Net Revenues” are defined, for any period, as the amount of the excess of Revenues over the amounts paid from the Revenue Fund for Operation and Maintenance Expenses during such period.

“Operation and Maintenance Expenses” shall mean the reasonable and necessary Administrative Expenses (but only to the extent the same otherwise constitute Operation and Maintenance Expenses within the meaning of this definition), Department Operation and Maintenance Expenses (but only to the extent the same otherwise constitute Operation and Maintenance Expenses within the meaning of this definition) and the reasonable and necessary expenses of maintenance, repair and operation of the System and its Toll facilities, including, without limitation, all ordinary and usual expenses of maintenance and repair, insurance premiums, engineering expenses, legal expenses, the costs of collecting and accounting for Tolls, employee bond premiums, payments in satisfaction of the obligations of the Authority with respect to rebate due the United States of America, amounts due in respect of fees and expenses under an agreement to be entered into with the Initial Liquidity Provider or any similar agreement with respect to a Credit or Liquidity Facility, and any other similar expenses required to be paid with respect to the System under the provisions of the Indenture or by law, as such expenses are determined to have been incurred in accordance with the method of accounting used in the annual financial statements of the Authority, including, to the extent so determined, expenses not annually recurring, but excluding: (i) any reserves for extraordinary maintenance or repair; (ii) any allowance for depreciation or amortization; and (iii) any deposits or transfers to the credit of the Funds and Accounts.

“Principal and Interest Requirements” shall mean the respective amounts which are required in each Fiscal Year to provide:

(a) for paying the interest on all Bonds then Outstanding which is payable on each Interest Payment Date in such Fiscal Year (the “Interest Requirement”);

(b) for paying the principal of all Serial Bonds then Outstanding which is payable upon the maturity of Serial Bonds in such Fiscal Year (together with clause (c) immediately below, the “Principal Requirement”); and

(c) for paying the Amortization Requirements, if any, for all Term Bonds then Outstanding for such Fiscal Year (together with clause (b) immediately above, the “Principal Requirement”).

For purpose of computing (a), (b) and (c) above, any principal, interest or Amortization Requirements due on the first day of a Fiscal Year shall be deemed due in the preceding Fiscal Year.

The Indenture contains certain conventions to be applied in determining the amount of Principal and Interest Requirements for any Fiscal Year. See the definition of “Principal and Interest Requirements” in Article I of the Indenture included herein as Appendix E.

### **Debt Service Reserve Fund**

As additional security for the Bonds, the Indenture establishes the “Miami-Dade County Expressway Authority Debt Service Reserve Fund” (the “Debt Service Reserve Fund”). The Indenture requires that there be on deposit in the Debt Service Reserve Fund an amount equal to the Debt Service Reserve Fund Requirement, which may be satisfied with cash and/or one or more Reserve Facilities as described in the Indenture. See “APPENDIX E - The Amended and Restated Indenture and Form of Sixth Supplemental Indenture” herein for a description of the provisions which must be fulfilled in the use of a Reserve Facility.

Prior to Fiscal Year 2009, the Authority satisfied the Debt Service Reserve Fund Requirement through a combination of invested cash and Reserve Facilities. The Reserve Facilities were issued by two separate Reserve Facility Providers. The Indenture provides that if a Reserve Facility Provider’s claims paying ability rating falls below a “AAA” by S&P or “Aaa” by Moody’s, then the Authority is required to either deposit sufficient cash or replace the Reserve Facility with a new Reserve Facility whose Reserve Facility Provider’s claims paying ability is rated “AAA” by S&P or “Aaa” by Moody’s.\* Both of the Reserve Facility Providers’ claims paying ability ratings fell below the minimum requirement set forth in the Indenture. As a result, the Authority has deposited additional cash and investments in the Debt Service Reserve Fund, resulting in \$70.7 million in cash and investments being on deposit in the Debt Service Reserve Fund as of June 30, 2009. Such deposits were funded from the Authority’s general fund reserves and unspent prior Bond proceeds. The Debt Service Reserve Fund is currently fully funded.

The “Debt Service Reserve Fund Requirement” means, as of any date of calculation, an amount equal to the least of (i) maximum Principal and Interest Requirements on the Bonds in the current or any future Fiscal Year for the Bonds; (ii) 125% of the Average Annual Debt Service Requirement for the Bonds or (iii) 10% of the proceeds of the Bonds. Upon issuance of the Series 2010 Bonds, the Debt Service Reserve Fund Requirement will be \$90,543,718.76. The Debt Service Reserve Fund Requirement will be satisfied with invested cash currently on deposit in the Debt Service Reserve Fund and \$15,743,193.76 to be deposited from the proceeds of the Series 2010A Bonds, representing the increase in the Debt Service Reserve Fund Requirement resulting from the issuance of the Series 2010A Bonds.

Moneys held for the credit of the Debt Service Reserve Fund shall be transferred to the credit of the Sinking Fund and used for the purpose of paying the principal and interest of all

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\* See “PROPOSED AMENDMENTS TO THE ORIGINAL INDENTURE” herein for a description of certain proposed amendments to the Original Indenture, one of which would change, among other things, the minimum rating requirements for Reserve Facilities acquired with respect to Bonds issued after June 30, 2010.



Bonds whenever and to the extent that the moneys held for the credit of the Sinking Fund and available moneys held for the credit of the General Fund and the Renewal and Replacement Fund shall be insufficient for such purpose. If the amount transferred from the Debt Service Reserve Fund to the Sinking Fund shall be less than the amount required to be transferred thereunder, any amount thereafter deposited to the credit of the Debt Service Reserve Fund shall be immediately transferred to the Sinking Fund as and to the extent required to make up such deficiency.

If on the Deposit Day immediately preceding each Interest Payment Date and/or principal payment date in each Fiscal Year the moneys held for the credit of the Debt Service Reserve Fund shall exceed an amount equal to the Debt Service Reserve Fund Requirement, the Trustee shall transfer such excess to the credit of the Sinking Fund.

Whenever the amount on deposit in the Debt Service Reserve Fund is less than the Debt Service Reserve Fund Requirement, the Trustee shall notify the Authority of the amount of the deficiency. Upon such notification, the Trustee shall transfer from moneys held to the credit of the Revenue Fund on the Deposit Day in each month thereafter, to the credit of the Debt Service Reserve Fund an amount not less than the Debt Service Reserve Fund Deposit Requirement until such deficiency is remedied.

“Debt Service Reserve Fund Deposit Requirement” shall mean an amount in each of the twelve successive months beginning with the month following any month in which any amount shall have been withdrawn from the Debt Service Reserve Fund (or drawn under a Reserve Facility) or a deficiency is determined to exist upon valuation of the Debt Service Reserve Fund pursuant to the Indenture, equal to one-twelfth of the deficiency created by such withdrawal (or draw under a Reserve Facility) or resulting from such valuation until such deficiency is made up. In the case of draws under the various Reserve Facilities, such deficiency shall include repayment of draws, expenses and interest then due and owing under the provisions of the Reserve Facility Agreements.

### **Additional Bonds**

Pursuant to the Indenture, Additional Bonds payable on a parity under the Indenture with any Bonds then Outstanding may be issued, from time to time, (i) for the purposes of paying all or a portion of the Costs of a Project, making deposits to the Funds and Accounts established under the Indenture and paying costs and expenses related thereto, or (ii) to finance Hedge Charges including, without limitation, termination payments related to Hedge Agreements.

Before any such Additional Bonds may be issued, certain items must be filed with the Trustee, including, but not limited to, the following (which must also be filed with the Department):

(1) A copy of a certificate signed by an Authorized Officer of the Authority stating the amount of Test Period Revenues (as defined below) projected to be received by the Authority during the current Fiscal Year and each full Fiscal Year to and including the fifth full Fiscal Year following the projected date when the Project to be financed from the proceeds of such Additional Bonds will be placed in service (the “Test Period”). “Test Period Revenues” means

the Net Revenues during the Test Period, as determined by the Authorized Officer, further adjusted by the Authorized Officer to reflect 100% of the additional Revenues which, in the opinion of the Consulting Engineer, would be received from increases in Tolls, rates, fees, rentals and other charges relating to the System scheduled to take effect during the Test Period (provided that such increases must be adopted as of the date the certification is made and such increases must be effective on, or scheduled to become effective no later than eighteen months from, the date on which such certificate is made and must remain in effect for the entirety of the Test Period);\*

(2) A written opinion of the Consulting Engineer stating that (A) the projections of Test Period Revenues set forth in the certificate of the Authorized Officer delivered pursuant to clause (1) above are reasonable, and (B) the Test Period Revenues are sufficient to enable the Authority to comply with all of the requirements of the covenant as to Tolls described under “Toll Covenant” above over the entirety of the Test Period, taking into account the additional Principal and Interest Requirements of the Additional Bonds proposed to be issued; and

(3) Either (A) a certificate of the Department stating that, at the time the Additional Bonds are to be issued, (1) the Authority is current in the payment to the Department of any unpaid Non-contingent Portion of Annual Repayment Requirements, (2) there is not any unpaid Contingent Portion of Annual Repayment Requirements, and (3) the Department acknowledges that Revenues, based on the opinion of the Consulting Engineer, are projected to be sufficient to pay when due the Annual Repayment Requirements after taking into account the debt service requirements of the Additional Bonds, or (B) if, at the time the Additional Bonds are to be issued (1) the Authority is not current in the payment to the Department of any unpaid Non-contingent Portion of Annual Repayment Requirements, (2) there shall be any unpaid Contingent Portion of Annual Repayment Requirements, or (3) Revenues, based on the opinion of the Consulting Engineer, are projected to be insufficient to pay when due the Annual Repayment Requirements after taking into account the debt service requirements of the Additional Bonds, a written consent from the Department to the issuance of such Bonds.

A portion of the Series 2010A Bonds are being issued as Additional Bonds under the Indenture.

### **Completion Bonds**

The Indenture provides for the issuance of Completion Bonds, from time to time, on a parity with any Bonds then Outstanding. Completion Bonds may be issued in an aggregate principal amount not to exceed ten percent of the original estimated Cost of any Project financed from the proceeds of Bonds at the time of issuance of such Bonds. Completion Bonds may be issued for the purpose of providing funds to pay all or part of the Cost of completing the Project financed from the proceeds of such Bonds, to make deposits to the Funds and Accounts and pay other costs of issuance and expenses related thereto. Prior to the issuance of Completion Bonds, the Trustee must be provided with certain items, including a certificate from the Consulting Engineer stating that the original estimated cost of the Project to be completed at the time of

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\* See “PROPOSED AMENDMENTS TO THE ORIGINAL INDENTURE” herein for a description of certain proposed amendments to the Original Indenture, one of which would change the definition of “Test Period Revenues”.

issuance of the Bonds originally issued to finance such Project will be exceeded and that the proceeds of the proposed Completion Bonds, together with any other funds which are available or reasonably expected to become available, will be sufficient to pay the Cost of completing such Project.

### **Refunding Bonds**

The Indenture allows for the issuance of Refunding Bonds, from time to time, on a parity with any Bonds then Outstanding for the purpose of refunding all or any portion of the Bonds then Outstanding, making deposits to the Funds and Accounts and paying other costs of issuance and expenses related thereto.

Before any Refunding Bonds may be issued, certain items must be filed with the Trustee, including, but not limited to, either (A) a certificate signed by an Authorized Officer, confirming that the annual Principal and Interest Requirements for each Fiscal Year in which the Bonds to be refunded would be Outstanding but for such refunding for all Bonds Outstanding following issuance of the Refunding Bonds with respect to which the certificate is made (excluding any Bonds being defeased by proceeds of the Refunding Bonds) is not greater than the annual Principal and Interest Requirements for each Fiscal Year for all Bonds Outstanding prior to issuance of such Refunding Bonds, or (B) in lieu thereof, the certificate and opinion described above under “Additional Bonds”, each prepared as though the Refunding Bonds constitute a Series of Additional Bonds and as though the Test Period shall commence on the date of issuance of such Refunding Bonds and, under the circumstances set forth above under “Additional Bonds,” the written consent of the Department described therein.

The Series 2010B Bonds and a portion of the Series 2010A Bonds are being issued as Refunding Bonds under the Indenture.

### **Other Indebtedness**

Nothing in the Indenture shall be construed as in any way prohibiting or limiting the power of the Authority to enter into agreements, including interest rate swaps, incur obligations, undertake indebtedness or otherwise enter into any financing transactions to the extent such agreements, obligations, indebtedness or financing transactions do not impose any lien upon the Revenues and are payable from sources other than Revenues. The foregoing shall include bond or revenue anticipation notes, including notes anticipated to be paid from proceeds of Bonds issued under the Indenture, and any other obligations of the Authority that are payable from funds other than Revenues.

The Authority is obligated to pay Annual Repayment Requirements due the Department in accordance with the provisions of the Indenture and the Transfer Agreement as more particularly described under “THE SYSTEM – Transfer Agreement” herein. The Authority currently has no Annual Repayment Requirement due under the Transfer Agreement to the Department, and no future obligations have been identified to date.

As of March 30, 2010, the Authority had a total of \$3,111,910 principal amount of outstanding obligations under the Toll Facilities Revolving Trust Fund, as authorized by Section 338.251, Florida Statutes as described below. Pursuant to a Memorandum of Agreement dated

May 26, 1998 between the Department and the Authority, five advances (one in an amount of \$1,000,000 and four others in the amount of \$1,500,000 each) were made by the Department to the Authority on November 11, 1998, December 31, 2003, December 6, 2006, May 1, 2008 and March 10, 2010. The Authority has elected to repay these obligations beginning no later than seven (7) years from the date of the respective advance, provided that repayment shall be completed no later than twelve (12) years after the date of the respective advance. These obligations are unsecured and payable from Revenues of the System on a basis subordinate to its obligations under the Indenture with respect to the Bonds.

The Authority also has outstanding (i) unsecured non-interest bearing loans from the State Infrastructure Bank administered by the Department in an aggregate principal amount of \$20,000,000, all of which had been disbursed by the Department to the Authority, with annual principal payments to be made beginning October 1, 2010 and ending October 1, 2012 in the amounts of \$7,000,000, \$9,000,000 and \$4,000,000, respectively, (ii) an unsecured interest bearing loan from the State Infrastructure Bank in the principal amount of \$11,613,000, bearing interest at an annual rate of 2.50%, all of which has been disbursed as of June 30, 2009, with annual principal payments to be made beginning October 1, 2013, and (iii) an unsecured interest bearing loan from the State Infrastructure Bank in the principal amount of \$15,000,000, bearing interest at an annual rate of 2.0%, of which \$5,000,000 has been disbursed as of June 30, 2009, with principal payments to be made beginning October 1, 2010 (collectively, the “SIB Loans”). The Authority is applying proceeds of the SIB Loans to fund several projects within the Five-Year Work Program. The repayment of the SIB Loans is secured solely by, and the SIB Loans are repayable solely from, amounts credited to the Authority Account of the General Fund established pursuant to the Indenture. The Authority may, from time to time, apply for additional loans from the State Infrastructure Bank (collectively, the “Future SIB Loans”). The obligation of the Authority to repay the SIB Loans is, and the obligation of the Authority to repay Future SIB Loans will be, subordinate in all respects to its obligations under the Indenture with respect to the Bonds.

### **Interest Rate Swaps**

On February 1, 1999, the Authority entered into an interest rate swap agreement with Salomon Brothers Holding Company, Inc. (“SBHC”), which has been amended and restated by the Authority and CFPI, as successor to SBHC (as amended and restated, the “CFPI Swap”). On June 30, 2004, the bonds that were related to the CFPI Swap were refunded using proceeds of the Authority’s Toll System Refunding Revenue Bonds, Series 2004A. The Authority terminated the CFPI Swap on August 3, 2010 and paid a termination payment to CFPI on August 6, 2010. See “PLAN OF FINANCE” and “ESTIMATED SOURCES AND USES OF FUNDS” herein.

On October 28, 2004, in anticipation of the issuance of the Authority’s Toll System Revenue Bonds, Series 2005, which were issued on March 1, 2005, the Authority also entered into three separate forward-starting interest rate swap agreements (collectively, the “Forward Swaps”) with UBS AG, J.P. Morgan Chase & Co. as successor in interest to Bear Stearns Capital Markets Inc. and Citibank, N.A. (in such capacities, collectively, the “Forward Swap Providers”).

For more information on the CFPI Swap and the Forward Swaps, including the basis risks resulting from the different interest rate formulas upon which payments on the Forward Swaps and the related bonds are computed, see “Interest Rate Swap Agreements” under Note 6 in “APPENDIX D – Audited Financial Statements of the Authority Fiscal Years Ended June 30, 2009 and 2008” hereto.

Pursuant to the Forward Swaps, only the net amount due to either the Authority or the Forward Swap Providers will be paid. The payments by the Authority under the Forward Swaps (other than termination payments) constitute Hedge Obligations under the Indenture and will be made from the Sinking Fund pursuant to the Indenture. Any payments to be made by the Authority, if any, in connection with the termination of the Forward Swaps constitute Hedge Charges under the Indenture and will be made from the Authority Account. The Forward Swaps contain certain termination provisions, which could create an obligation of the Authority to pay significant Hedge Charges.

### **Flow of Funds**

Establishment of Funds. Pursuant to the Indenture, the Authority has established the following Funds:

- (1) The “Miami-Dade County Expressway Authority Construction Fund” (the “Construction Fund”).
- (2) The “Miami-Dade County Expressway Authority Revenue Fund” (the “Revenue Fund”).
- (3) The “Miami-Dade County Expressway Authority Sinking Fund” (the “Sinking Fund”).
- (4) The Debt Service Reserve Fund.
- (5) The “Miami-Dade County Expressway Authority Renewal and Replacement Fund” (the “Renewal and Replacement Fund”).
- (6) The “Miami-Dade County Expressway Authority General Fund” (the “General Fund”) and the “General Account,” the “Rate Stabilization Account,” and the “Authority Account” therein.
- (7) The “Miami-Dade County Expressway Authority Rebate Fund” (the “Rebate Fund”).

Deposit of Revenues. Pursuant to the Indenture, the Authority has covenanted that it shall, to the extent practicable, deposit the portion of the Revenues comprised of cash Toll receipts daily into one or more special trust funds designated the “Miami-Dade County Expressway System Toll Collection Account” (the “Collection Account”). The Collection Account is established pursuant to a deposit trust agreement and maintained in one or more banks or trust companies designated by the Authority and eligible under the laws of the State to receive deposits of public funds. Expenses of administration incurred by the banks or trust

companies maintaining the Collection Account are offset in part from time to time from investment earnings on amounts credited to the Collection Account. The Authority is required to transfer or cause to be transferred all amounts credited to the Collection Account weekly, to the extent practicable, but not less often than once every two weeks, to the Trustee for deposit to the credit of the Revenue Fund. The Authority has further covenanted that, except as provided in the Indenture with respect to investment earnings on the Sinking Fund and as otherwise provided in the Indenture, all Revenues collected by the Authority other than cash Toll receipts will be deposited daily, to the extent practicable, but not less often than once every two weeks, with the Trustee for deposit to the credit of the Revenue Fund. The lien of the Indenture upon moneys and revenues that constitute part of the Trust Estate attaches as soon as such moneys and revenues are collected by or on behalf of the Authority.

It shall be the duty of the Trustee, on or before the 25th day of each month and/or on such other Deposit Day as may be required pursuant to a Supplemental Indenture, to withdraw from the Revenue Fund and transfer an amount equal to the amount of all moneys held for the credit of the Revenue Fund on the last day of the preceding month less an amount (to be held as a reserve for Operation and Maintenance Expenses) not in excess of eight and thirty-three hundredths per centum (8.33%) of the amount shown by the Annual Budget to be necessary for Operation and Maintenance Expenses for the current Fiscal Year (or any percentage less than eight and thirty-three hundredths per centum (8.33%) as may be determined by the Authority by resolution from time to time filed with the Trustee) to the credit of the following Funds in the following order:

(a) first, deposit to the credit of the Sinking Fund, such amount thereof (or the entire sum so withdrawn if less than the required amount) as shall equal the sum of

(i) an amount that, together with an equal amount assumed to be deposited on one Deposit Day of each succeeding calendar month prior to the next Interest Payment Date, shall equal the Interest Requirements of the Bonds payable on the next Interest Payment Date, and

(ii) an amount that, together with an equal amount assumed to be deposited on one Deposit Day of each succeeding calendar month prior to the next principal payment date (including any date established for the payment of Amortization Requirements) for the Bonds occurring within one year of the date of such deposit, shall equal the Principal Requirements of the Bonds payable on such next principal payment date (or date established for the payment of Amortization Requirements);

provided that in making such transfer, the Trustee shall take into account any accrued interest deposited from the proceeds of a Series of Bonds and any amounts specified in a certificate of an Authorized Officer delivered to the Trustee prior to such Deposit Day as credited to the Sinking Fund or a special Account in the Construction Fund, dedicated to pay capitalized interest on Bonds and anticipated to be available to pay interest on Bonds on the next Interest Payment Date; provided further, that in making such transfer, the Trustee shall take into account any investment income realized by the Authority from the investment of moneys to the credit of the Sinking Fund and the Debt Service Reserve Fund (or any other excess in the Debt Service Reserve Fund transferred or then transferable to the Sinking Fund pursuant to the Indenture)

since the Deposit Day next preceding the Interest Payment Date last occurring prior to such Deposit Day; and provided further that, in the event the Authority has entered into any Hedge Agreement pursuant to the provisions of the Indenture, amounts shall be deposited in the Sinking Fund at such other times and/or in such other amounts or transferred to such other parties as necessary to pay the Hedge Obligations due under the Hedge Agreement on a parity with interest due on the Bonds, all in the manner described in the Supplemental Indenture authorizing the issuance of any Series of Bonds where Hedge Obligations may become payable under a Hedge Agreement. Notwithstanding the foregoing, the Authority shall remain obligated to cure any deficiency in the amount so deposited for the payment of interest on Variable Rate Bonds on or prior to the applicable Interest Payment Date, and the Trustee shall transfer from the Revenue Fund, to the extent that moneys are available therein, the amount necessary to cure any such deficiency on or prior to such Interest Payment Date.

(b) second, deposit to the credit of the Debt Service Reserve Fund, such amount, if any, remaining after the deposits under clause (a) above (or the entire balance if less than the required amount) as shall equal the Debt Service Reserve Fund Deposit Requirement;

(c) third, deposit to the credit of the Renewal and Replacement Fund an amount equal to such amount, if any, as may be necessary to make the total amount to the credit of such Fund equal to the total amount budgeted for expenditure in the then current Fiscal Year by the Authority in its Annual Budget; and

(d) finally, deposit to the credit of the General Account within the General Fund, the balance, if any, remaining after making the deposits under clauses (a), (b) and (c) above.

For a further description of the deposits required to be made to the above Funds and Accounts and the application of the moneys deposited therein, including the application of moneys deposited to the General Account within the General Fund to the payment of the Annual Repayment Requirements due the Department, see “APPENDIX E - The Amended and Restated Indenture and Form of Sixth Supplemental Indenture” herein.

## **Investments**

Monies held for the credit of the Construction Fund, the Revenue Fund, the Sinking Fund, the Debt Service Reserve Fund, the Renewal and Replacement Fund, the General Fund and the Rebate Fund shall, as nearly as may be practicable, be continuously invested and reinvested by the Trustee, only upon written direction or telephonic direction promptly followed by written direction of an Authorized Officer of the Authority to the Trustee, in Investment Securities which shall mature, or which shall be subject to redemption by the holder thereof at the option of such holder, not later than the respective dates when monies held for the credit of said Funds will be estimated by an Authorized Officer to be required for the purposes intended (which Investment Securities, in the case of the Debt Service Reserve Fund, shall not mature later than five years after the date of purchase). All such investments shall be valued in accordance with the terms of the Indenture. See “APPENDIX E - The Amended and Restated Indenture and Form of Sixth Supplemental Indenture” herein.

Any and all income received from the investment of monies in the Revenue Fund and the General Fund shall be deposited upon receipt thereof in the Revenue Fund. Any and all income received from the investment of monies in the Accounts and Subaccounts in the Sinking Fund shall be retained in the Accounts and Subaccounts in which they are earned. Any and all income earned on investments in the Debt Service Reserve Fund shall be transferred to the Sinking Fund; provided, however, such income in the Debt Service Reserve Fund shall be retained in the Debt Service Reserve Fund in the event that amounts on deposit therein are less than the Debt Service Reserve Fund Requirement.

Any income received from the investment of monies in the Construction Fund shall remain therein until completion of the Project for which such monies were deposited in the Construction Fund and, to the extent any excess income remains at the end of the Project, the same shall be applied in the manner set forth in the Indenture. See “APPENDIX E - The Amended and Restated Indenture and Form of Sixth Supplemental Indenture.”

Any income received from the investment of moneys in the Rebate Fund shall remain therein.

#### **Other Covenants of the Authority**

The Authority has made several covenants in the Indenture including, but not limited to, covenants to establish and enforce reasonable rules with respect to the operation of the System, to retain a Consulting Engineer and Accountants as needed or required, to prepare an Annual Budget, to maintain or cause to be maintained various insurance with respect to the System, to keep adequate books and records, to diligently enforce the collection of Tolls, to prohibit the sale or disposal of any portion of the System except under certain circumstances and to inspect or cause the inspection of the System on a regular basis. See “APPENDIX E - The Amended and Restated Indenture and Form of Sixth Supplemental Indenture” herein.

#### **PROPOSED AMENDMENTS TO THE ORIGINAL INDENTURE**

The Authority has determined to solicit the requisite consents and approvals to amend the Original Indenture to provide that certain increases in projected Revenues during a Test Period are taken into account for purposes of the issuance of Additional Bonds and to modify certain parameters relating to Reserve Facilities, as more particularly described below and set forth in the Sixth Supplemental Indenture (the “Amendments”).

The Amendments will become effective when (i) in accordance with the provisions of Section 11.02 of the Original Indenture, the Authority shall have obtained the consent and approval to the Amendments of each Credit Provider and the Owners of not less than a majority in aggregate principal amount of Bonds then Outstanding (or where Bonds are insured, the consent and approval of the Credit Providers insuring such Bonds), and (ii) the Authority shall have obtained the consent and approval to the Amendments of each Counterparty with a right to consent and approval to the Amendments. The Underwriters, upon initial purchase of the Series 2010 Bonds, will consent to and approve the Amendments, including the provisions contained in the second sentences of clauses (B) and (C) of Section 5.08(d)(xii) set forth below, and, in accordance with the provisions of the Original Indenture, their consent and approval shall be



deemed the consent and approval of the Owners of the Series 2010 Bonds. Such consent and approval will represent the consent and approval of 32.8% of the aggregate principal amount of the Bonds then Outstanding. The Authority is seeking the consent and approval to the Amendments of the Credit Providers and the Forward Swap Providers.

Section 2.08(c)(v) and (vi) of the Original Indenture will be amended to read as follows (with underlined text being added and stricken text being deleted):

“(v) A copy of a certificate signed by an Authorized Officer stating the amount of Test Period Revenues projected to be received by the Authority during the current Fiscal Year and each full Fiscal Year to and including the fifth full Fiscal Year following the projected date when the Project to be financed from the proceeds of such Additional Bonds will be placed in service (the “Test Period”). “Test Period Revenues” shall mean, for the purposes hereof, the Net Revenues during the Test Period, as determined by the Authorized Officer, further adjusted by the Authorized Officer to reflect 100% of the additional Revenues which, in the opinion of the Consulting Engineer, would be received from increases in Tolls, rates, fees, rentals and other charges relating to the System scheduled to take effect during the Test Period (provided that such increases must be adopted as of the date the certification is made and such increases must be effective on, or scheduled to become effective no later than ~~eighteen~~ thirty-six months from, the date on which such certificate is made and must remain in effect for the entirety of the Test Period);

(vi) A written opinion of the Consulting Engineer stating that (A) the projections of Test Period Revenues set forth in the certificate of the Authorized Officer delivered pursuant to clause (v) immediately above, including, without limitation, that portion of Test Period Revenues anticipated by the Authorized Officer to be derived from increases in Tolls, rates, fees, rentals and other charges relating to the System scheduled to take effect during the Test Period, are reasonable, and (B) the Test Period Revenues are sufficient to enable the Authority to comply with all of the requirements of Section 5.01(b) over the entirety of the Test Period, taking into account the additional Principal and Interest Requirements of the Additional Bonds proposed to be issued;”

Section 5.08(d) of the Original Indenture will be amended by adding a new clause (xii) at the conclusion thereof to read as follows:

“(xii) Notwithstanding anything in this Indenture to the contrary:

(A) the Authority may satisfy any incremental increase in the Debt Service Reserve Fund Requirement resulting from the issuance of Bonds after June 30, 2010 with a Reserve Facility if the Reserve Facility Provider of such Reserve Facility has a long-term credit rating of not less than

“A1/A+” from Moody’s and S&P respectively at the time of deposit of such Reserve Facility into the Debt Service Reserve Fund.

(B) Except as otherwise set forth in this clause (B), if (1) such a Reserve Facility Provider becomes insolvent or defaults in its payment obligations on its Reserve Facility, or (2) the long-term credit rating of such Reserve Facility Provider falls below a Moody’s “A2” or an S&P “A”, the obligation to reimburse such Reserve Facility Provider shall be subordinate to the cash replenishment of the Debt Service Reserve Fund. At such time as the Authority shall certify to the Trustee in writing that (i) the Authority shall have obtained the consent and approval of each Credit Provider and the Owners of not less than a majority in aggregate principal amount of Bonds then Outstanding (or where Bonds are insured, the consent and approval of the Credit Provider insuring such Bonds), thereto, and (ii) the Authority shall have obtained the consent and approval of each Counterparty with a right of consent and approval thereto, the preceding sentence shall no longer be of any force and effect and shall be superseded and replaced by the following: “If (1) such a Reserve Facility Provider becomes insolvent or defaults in its payment obligations on its Reserve Facility, or (2) the long-term credit rating of such Reserve Facility Provider falls below a Moody’s “A3” or an S&P “A-”, the obligation to reimburse such Reserve Facility Provider shall be subordinate to the cash replenishment of the Debt Service Reserve Fund.”

(C) Except as otherwise provided in this clause (C), if (1) the revolving reinstatement feature of such a Reserve Facility described in clause (d)(v) of this Section is suspended or terminated, (2) the long-term credit rating of the Reserve Facility Provider of such Reserve Facility falls below a Moody’s “A2” or an S&P “A” or is withdrawn or suspended, or (3) such Reserve Facility Provider becomes insolvent or defaults in its payment obligations on its Reserve Facility, the Authority shall either deposit into the Debt Service Reserve Fund an amount sufficient to cause the cash or Investment Securities on deposit in the Debt Service Reserve Fund to equal the Debt Service Reserve Fund Requirement on all Outstanding Bonds, such amount to be paid over the ensuing three years in equal installments deposited at least semi-annually or replace such instrument with a surety bond, insurance policy or letter of credit meeting the requirements of this clause (xii) above within six months of such occurrence. At such time as the Authority shall certify to the Trustee in writing that (i) the Authority shall have obtained the consent and approval of each Credit Provider and the Owners of not less than a majority in aggregate principal amount of Bonds then Outstanding (or where Bonds are insured, the consent and approval of the Credit Provider insuring such Bonds), thereto, and (ii) the Authority shall have obtained the consent and approval of each Counterparty with a right of consent and approval thereto, the preceding sentence shall no longer be of any force and effect and shall be superseded and replaced by the following: “If (1) the

revolving reinstatement feature of such a Reserve Facility described in clause (d)(v) of this Section is suspended or terminated, (2) the long-term credit rating of the Reserve Facility Provider of such Reserve Facility falls below a Moody's "A3" or an S&P "A-" or is withdrawn or suspended, or (3) such Reserve Facility Provider becomes insolvent or defaults in its payment obligations on its Reserve Facility, the Authority shall either deposit into the Debt Service Reserve Fund an amount sufficient to cause the cash or Investment Securities on deposit in the Debt Service Reserve Fund to equal the Debt Service Reserve Fund Requirement on all Outstanding Bonds, such amount to be paid over the ensuing five years in equal installments deposited at least semi-annually or replace such instrument with a surety bond, insurance policy or letter of credit meeting the requirements of this clause (xii) above within six months of such occurrence."

(D) To the extent not inconsistent with this clause (xii), the requirements of this Indenture, including particularly Section 5.08(d), applicable to Reserve Facilities shall apply to Reserve Facilities acquired to satisfy any incremental increase in the Debt Service Reserve Fund Requirement resulting from the issuance of Bonds after June 30, 2010."

For the complete form of the Sixth Supplemental Indenture, see "APPENDIX E - The Amended and Restated Indenture and Form of Sixth Supplemental Indenture" herein.

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## ESTIMATED SOURCES AND USES OF FUNDS

The following table presents the estimated sources and uses of funds in connection with the issuance of the Series 2010 Bonds:

| SOURCES OF FUNDS                                      | Series 2010A<br><u>Bonds</u>   | Series 2010B<br><u>Bonds</u>   | Series 2010<br><u>Bonds</u>    |
|-------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Principal Amount of Bonds .....                       | \$395,590,000.00               | \$ 17,120,000.00               | \$412,710,000.00               |
| Net Original Issue                                    |                                |                                |                                |
| Premium/(Discount).....                               | (1,081,550.75)                 | 298,338.50                     | (783,212.25)                   |
| Other Moneys <sup>(1)</sup> .....                     | <u>381,626.67</u>              | <u>414,854.16</u>              | <u>796,480.83</u>              |
| <b>Total Sources of Funds.....</b>                    | <b><u>\$394,890,075.92</u></b> | <b><u>\$ 17,833,192.66</u></b> | <b><u>\$412,723,268.58</u></b> |
| <br><b>USES OF FUNDS</b>                              |                                |                                |                                |
| Deposit to the Construction Fund <sup>(2)</sup> ..... | \$314,806,497.84               | \$ -                           | \$314,806,497.84               |
| Deposit to 2004A Escrow Fund.....                     | 49,656,626.67                  | -                              | 49,656,626.67                  |
| Deposit to 2000 Escrow Fund.....                      | -                              | 17,621,134.03                  | 17,621,134.03                  |
| Deposit to Debt Service Reserve                       |                                |                                |                                |
| Fund .....                                            | 15,743,193.76                  | -                              | 15,743,193.76                  |
| Underwriters' Discount.....                           | 2,036,053.56                   | 31,597.40                      | 2,067,650.96                   |
| CFPI Swap Termination Payment                         |                                |                                |                                |
| Reimbursement .....                                   | 9,785,000.00                   | -                              | 9,785,000.00                   |
| Costs of Issuance <sup>(3)</sup> .....                | <u>2,862,704.09</u>            | <u>180,461.23</u>              | <u>3,043,165.32</u>            |
| <b>Total Uses of Funds.....</b>                       | <b><u>\$394,890,075.92</u></b> | <b><u>\$ 17,833,192.66</u></b> | <b><u>\$412,723,268.58</u></b> |

(1) Moneys from the Sinking Fund allocable to the Refunded Bonds.

(2) Includes capitalized interest of \$7,302,515.33.

(3) Includes premium for the Policy, financial advisory fees, legal fees and other expenses incurred in the issuance of the Series 2010 Bonds.

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## ESTIMATED DEBT SERVICE SCHEDULE

The following table sets forth the estimated annual debt service schedule for the Currently Outstanding Bonds and the Series 2010 Bonds:

| Year<br>Ending<br>July 1, | Currently<br>Outstanding<br>Bonds <sup>(1)</sup> | Series 2010A Bonds (New Money Portion) |                       |                       | Series 2010A Bonds (Refunding Portion) |                      |                      | Series 2010B Bonds   |                   |                      | Total Series<br>2010 Bonds | Total Debt<br>Service <sup>(2)</sup> |
|---------------------------|--------------------------------------------------|----------------------------------------|-----------------------|-----------------------|----------------------------------------|----------------------|----------------------|----------------------|-------------------|----------------------|----------------------------|--------------------------------------|
|                           |                                                  | Principal                              | Interest              | Total <sup>(2)</sup>  | Principal                              | Interest             | Total <sup>(2)</sup> | Principal            | Interest          | Total <sup>(2)</sup> |                            |                                      |
| 2011                      | \$ 43,970,940                                    | \$ -                                   | \$ 14,701,049         | \$ 14,701,049         | \$ -                                   | \$ 1,717,848         | \$ 1,717,848         | \$ 4,705,000         | \$ 271,995        | \$ 4,976,995         | \$ 21,395,892              | \$ 65,366,832                        |
| 2012                      | 44,386,703                                       | -                                      | 16,908,555            | 16,908,555            | 5,325,000                              | 1,975,800            | 7,300,800            | 4,695,000            | 277,550           | 4,972,550            | 29,181,905                 | 73,568,608                           |
| 2013                      | 44,409,268                                       | -                                      | 16,908,555            | 16,908,555            | 7,125,000                              | 1,869,300            | 8,994,300            | 4,795,000            | 183,650           | 4,978,650            | 30,881,505                 | 75,290,773                           |
| 2014                      | 49,695,083                                       | -                                      | 16,908,555            | 16,908,555            | 4,640,000                              | 1,726,800            | 6,366,800            | 2,925,000            | 87,750            | 3,012,750            | 26,288,105                 | 75,983,188                           |
| 2015                      | 54,642,373                                       | -                                      | 16,908,555            | 16,908,555            | 4,680,000                              | 1,587,600            | 6,267,600            | -                    | -                 | -                    | 23,176,155                 | 77,818,528                           |
| 2016                      | 56,988,536                                       | -                                      | 16,908,555            | 16,908,555            | 4,620,000                              | 1,447,200            | 6,067,200            | -                    | -                 | -                    | 22,975,755                 | 79,964,291                           |
| 2017                      | 56,789,837                                       | -                                      | 16,908,555            | 16,908,555            | 7,065,000                              | 1,308,600            | 8,373,600            | -                    | -                 | -                    | 25,282,155                 | 82,071,992                           |
| 2018                      | 57,132,637                                       | -                                      | 16,908,555            | 16,908,555            | 8,585,000                              | 1,096,650            | 9,681,650            | -                    | -                 | -                    | 26,590,205                 | 83,722,842                           |
| 2019                      | 52,935,929                                       | -                                      | 16,908,555            | 16,908,555            | 15,065,000                             | 753,250              | 15,818,250           | -                    | -                 | -                    | 32,726,805                 | 85,662,734                           |
| 2020                      | 63,956,582                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 80,865,137                           |
| 2021                      | 66,012,458                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 82,921,013                           |
| 2022                      | 66,881,834                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 83,790,389                           |
| 2023                      | 68,487,724                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 85,396,279                           |
| 2024                      | 70,214,384                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 87,122,939                           |
| 2025                      | 70,105,877                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 87,014,432                           |
| 2026                      | 71,052,372                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 87,960,927                           |
| 2027                      | 72,084,598                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 88,993,153                           |
| 2028                      | 71,814,757                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 88,723,312                           |
| 2029                      | 71,359,678                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 88,268,233                           |
| 2030                      | 70,693,075                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 87,601,630                           |
| 2031                      | 70,642,436                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 87,550,991                           |
| 2032                      | 70,610,382                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 87,518,937                           |
| 2033                      | 70,544,531                                       | -                                      | 16,908,555            | 16,908,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 16,908,555                 | 87,453,086                           |
| 2034                      | 56,361,887                                       | 13,940,000                             | 16,908,555            | 30,848,555            | -                                      | -                    | -                    | -                    | -                 | -                    | 30,848,555                 | 87,210,442                           |
| 2035                      | 27,439,750                                       | 43,690,000                             | 16,212,180            | 59,902,180            | -                                      | -                    | -                    | -                    | -                 | -                    | 59,902,180                 | 87,341,930                           |
| 2036                      | 27,439,750                                       | 45,860,000                             | 14,042,750            | 59,902,750            | -                                      | -                    | -                    | -                    | -                 | -                    | 59,902,750                 | 87,342,500                           |
| 2037                      | 27,441,000                                       | 48,150,000                             | 11,749,750            | 59,899,750            | -                                      | -                    | -                    | -                    | -                 | -                    | 59,899,750                 | 87,340,750                           |
| 2038                      | 27,435,750                                       | 50,565,000                             | 9,342,250             | 59,907,250            | -                                      | -                    | -                    | -                    | -                 | -                    | 59,907,250                 | 87,343,000                           |
| 2039                      | 27,436,500                                       | 53,095,000                             | 6,814,000             | 59,909,000            | -                                      | -                    | -                    | -                    | -                 | -                    | 59,909,000                 | 87,345,500                           |
| 2040                      | -                                                | 83,185,000                             | 4,159,250             | 87,344,250            | -                                      | -                    | -                    | -                    | -                 | -                    | 87,344,250                 | 87,344,250                           |
| Total <sup>(2)</sup>      | <u>\$1,628,966,628</u>                           | <u>\$ 338,485,000</u>                  | <u>\$ 465,917,994</u> | <u>\$ 804,402,994</u> | <u>\$ 57,105,000</u>                   | <u>\$ 13,483,048</u> | <u>\$ 70,588,048</u> | <u>\$ 17,120,000</u> | <u>\$ 820,945</u> | <u>\$ 17,940,945</u> | <u>\$ 892,931,987</u>      | <u>\$2,521,898,615</u>               |

(1) Interest rates for the Currently Outstanding Bonds which bear interest at a variable rate are based on the fixed interest rates under the Swaps relating to such Bonds.

(2) Totals may not add due to rounding.

## **BOND INSURANCE FOR CERTAIN SERIES 2010 BONDS**

### **Policy**

Concurrently with the issuance of the Series 2010 Bonds, Assured Guaranty Municipal Corp. will issue the Policy for all of the Series 2010 Bonds, except the Uninsured Series 2010 Bonds. The Policy guarantees the scheduled payment of principal of and interest on all of the Series 2010 Bonds, except the Uninsured Series 2010 Bonds, when due as set forth in the form of the Policy included as Appendix H to this Official Statement.

The Policy is not covered by any insurance security or guaranty fund established under New York, California, Connecticut or Florida insurance law.

### **Assured Guaranty Municipal Corp.**

Assured Guaranty Municipal Corp. is a New York domiciled financial guaranty insurance company and a wholly owned subsidiary of Assured Guaranty Municipal Holdings Inc. (“Holdings”). Holdings is an indirect subsidiary of Assured Guaranty Ltd. (“AGL”), a Bermuda-based holding company whose shares are publicly traded and are listed on the New York Stock Exchange under the symbol “AGO”. AGL through its operating subsidiaries provides credit enhancement products to the U.S. and global public finance, infrastructure and structured finance markets. No shareholders of AGL, Holdings or Assured Guaranty Municipal Corp. is liable for the obligations of Assured Guaranty Municipal Corp.

Effective November 9, 2009, Financial Security Assurance Inc. changed its name to Assured Guaranty Municipal Corp.

Assured Guaranty Municipal Corp. financial strength is rated “AAA” (negative outlook) by Standard and Poor’s Ratings Services, a Standard & Poor’s Financial Services LLC business (“S&P”) and “Aa3” (negative outlook) by Moody’s Investors Service, Inc. (“Moody’s”). On February 24, 2010, Fitch, Inc. (“Fitch”), at the request of Assured Guaranty Municipal Corp., withdrew its “AA” (negative outlook) insurer financial strength rating of Assured Guaranty Municipal Corp. at the then current rating level. Each rating of Assured Guaranty Municipal Corp. should be evaluated independently. An explanation of the significance of the above ratings may be obtained from the applicable rating agency. The above ratings are not recommendations to buy, sell or hold any security, and such ratings are subject to revision or withdrawal at any time by the rating agencies, including withdrawal initiated at the request of Assured Guaranty Municipal Corp. in its sole discretion. Any downward revision or withdrawal of any of the above ratings may have an adverse effect on the market price of any security guaranteed by Assured Guaranty Municipal Corp. Assured Guaranty Municipal Corp. does not guarantee the market price of the securities it insures, nor does it guarantee that the ratings on such securities will not be revised or withdrawn.

### *Current Financial Strength Ratings*

On May 17, 2010, S&P published a Research Update in which it affirmed its “AAA” counterparty credit and financial strength ratings on Assured Guaranty Municipal Corp. At the

same time, S&P continued its negative outlook on Assured Guaranty Municipal Corp. Reference is made to the Research Update, a copy of which is available at [www.standardandpoors.com](http://www.standardandpoors.com) for the complete text of S&P's comments.

In a press release dated February 24, 2010, Fitch announced that, at the request of Assured Guaranty Municipal Corp., it had withdrawn the "AA" (negative outlook) insurer financial strength rating of Assured Guaranty Municipal Corp. at the then current rating level. Reference is made to the press release, a copy of which is available at [www.fitchratings.com](http://www.fitchratings.com) for the complete text of Fitch's comments.

On December 18, 2009, Moody's issued a press release stating that it had affirmed the "Aa3" insurance financial strength rating of Assured Guaranty Municipal Corp., with a negative outlook. Reference is made to the press release, a copy of which is available at [www.moody.com](http://www.moody.com) for the complete text of Moody's comments.

There can be no assurance as to any further ratings action that Moody's or S&P may take with respect to Assured Guaranty Municipal Corp.

For more information regarding Assured Guaranty Municipal Corp.'s financial strength ratings and the risks relating thereto, see AGL's Annual Report on Form 10-K for the fiscal year ended December 31, 2009, which was filed by AGL with the Securities and Exchange Commission (the "SEC") on March 1, 2010, AGL's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2010, which was filed by AGL with the SEC on May 10, 2010, and AGL's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2010, which was filed by AGL with the SEC on August 9, 2010.

#### *Capitalization of Assured Guaranty Municipal Corp.*

At March 31, 2010, Assured Guaranty Municipal Corp.'s consolidated policyholders' surplus and contingency reserves were approximately \$2,220,015,145 and its total net unearned premium reserve was approximately \$2,228,912,193 in accordance with statutory accounting principles.

#### *Incorporation of Certain Documents by Reference*

Portions of the following documents filed by Assured Guaranty Municipal Corp. with the SEC that relate to Assured Guaranty Municipal Corp. are incorporated herein by reference into this Official Statement and shall be deemed to be a part hereof:

The Annual Report on Form 10-K for the fiscal year ended December 31, 2009 (which was filed by AGL with the SEC on March 1, 2010); and

The Quarterly Report of Form 10-Q for the quarterly period ended March 31, 2010 (which was filed by AGL with the SEC on May 10, 2010).

The Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2010 (which was filed by AGL with the SEC on August 9, 2010).

All information relating to Assured Guaranty Municipal Corp. included in, or as exhibits to, documents filed by AGL pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act after the filings of the last document referred to above and before the termination of the offering of the Series 2010 Bonds shall be deemed incorporated by reference into this Official Statement and to be a part hereof from the respective dates of filing such documents. Copies of materials incorporated by reference are available over the internet at the SEC's website <http://www.sec.gov>, at AGL's website at [www.assuredguaranty.com](http://www.assuredguaranty.com) or will be provided upon request to Assured Guaranty Municipal Corp. (formerly known as Financial Security Assurance Inc.): 31 West 52<sup>nd</sup> Street, New York, New York 10019, Attention: Communications Department (telephone (212) 826-0100).

Any information regarding Assured Guaranty Municipal Corp. included herein under the caption "BOND INSURANCE FOR CERTAIN SERIES 2010 BONDS - Assured Guaranty Municipal Corp." or included in a document incorporated by reference herein (collectively, the "Assured Guaranty Information") shall be modified or superseded to the extent that any subsequently included Assured Guaranty Information (either directly or through incorporation by reference) modifies or supersedes such previously included Assured Guaranty Information. Any Assured Guaranty Information so modified or superseded shall not constitute a part of this Official Statement, except as so modified or superseded.

Assured Guaranty Municipal Corp. makes no representation regarding the Series 2010 Bonds or the advisability of investing in the Series 2010 Bonds. In addition, Assured Guaranty Municipal Corp. has not independently verified, makes no representations regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding Assured Guaranty Municipal Corp. supplied by Assured Guaranty Municipal Corp. and presented under the heading "BOND INSURANCE FOR CERTAIN SERIES 2010 BONDS" and "APPENDIX H - Specimen Municipal Bond Insurance Policy" herein.

## **THE AUTHORITY**

The Authority was formed in 1994 as a body politic and corporate, a public instrumentality and agency of the State under the provisions of the Act by Ordinance No. 94-215 enacted by the Commission on December 13, 1994, as amended by Ordinance No. 96-119 enacted by the Commission on July 18, 1996. The Authority's purposes and powers include, among others, the power to (1) acquire, hold, construct, improve, maintain, operate, own and lease an expressway system; (2) fix, alter, change, establish, and collect tolls, rates, fees, rentals, and other charges for the services and facilities of its expressway system; (3) utilize surplus revenues to finance or refinance the planning, design, acquisition, construction, maintenance or improvement of a public transportation facility or facilities located in the County or any programs or projects that will improve the levels of service on an expressway system; and (4) borrow money, make and issue negotiable notes, bonds, refunding bonds and other evidence of indebtedness to finance an expressway system. Since 2008, the Authority is subject to certain oversight of the FTC pursuant to Section 20.3(2)(b) 8, Florida Statutes. The FTC has no control over the Authority's Toll rates.



The governing body of the Authority (the “Board”) consists of thirteen members, each of whom, except for the District Secretary of District Six of the Department, must at all times during his or her term of office be a resident of the County. The members consist of (a) five members appointed by the Governor of the State, (b) seven members appointed by the Commission, and (c) the District Secretary of District Six of the Department as an ex-officio voting member. Members serve without compensation.

The Authority’s Fiscal Year commences on July 1 and ends on June 30 of the following calendar year.

### **Authority Governing Board**

**Felix Lasarte, Esq. (Chair).** Mr. Lasarte opened The Lasarte Law Firm, which specializes in real estate law, with a concentration on land use and zoning. He was formerly a partner with Holland and Knight, L.L.P. He was recently appointed by the Commission as the business representative for the South Florida Regional Transportation Authority (SFRTA) board. He earned his undergraduate degree from Florida International University and graduated with honors from St. Thomas University School of Law. He was appointed to the Authority by the Commission and his term expires February 7, 2012.

**Louis V. Martinez, Esq. (Vice Chair).** Louis V. Martinez is a partner in the Law firm of Alvarez & Martinez L.L.P. His previous position was with office of the Florida’s Attorney General as the Deputy Chief Assistant Attorney General. Mr. Martinez is a member of The Florida Bar, Cuban-American Bar Association, Illinois Bar and a member of the Miami Beach Chamber of Commerce. He earned his undergraduate degree from Loyola University and graduated from DePaul University College of Law. He was appointed to the Authority by the Commission and his term expires on February 7, 2012.

**Jorge Vigil, Esq. (Treasurer).** Mr. Vigil is a member and principal of the firm of Rasco, Reininger, Perez, Esquenazi & Vigil, P.L. He focuses his practice on real estate transactions, including joint ventures, and represents foreign investors in real property transactions. Mr. Vigil is a graduate of Duke University and holds a Juris Doctorate from New York University. He is a member of The Florida Bar. He was appointed to the Authority by the Governor of Florida and his term expired on February 7, 2010. He remains a member until his successor is appointed.

**Gus Pego, P.E.** As Secretary of District Six of the Department, Mr. Pego is responsible for the overall planning, design, construction, operations and maintenance of the State Highway System in Miami-Dade and Monroe Counties. He currently serves as a board member of the Miami-Dade Metropolitan Planning Organization and the Engineering Advisory Boards of both the University of Miami and Florida International University. Mr. Pego earned his bachelor’s degree in civil engineering from the University of Florida. He is an ex-officio voting member of the Authority.

**Maurice A. Ferré.** Mr. Ferré is founder of the Office of Maurice Ferré, a business consulting firm established in 1985. He is a member of the Council on Foreign Relations and the Inter-American Dialogue. He previously served as Mayor of the City of Miami (1973 - 1985).

He has also served in the Florida House of Representatives, as a City Commissioner of Miami and as Vice-Chairman of the Miami-Dade Board of County Commissioners (1994 - 1995). Mr. Ferré earned his bachelor's degree in architectural engineering and master of business administration at the University of Miami. He was appointed to the Authority by the Commission and his term expires on February 7, 2013.

**Maritza Gutiérrez.** Ms. Gutiérrez founded Creative Ideas Advertising, Inc. in 1983. She serves as the President and Chief Executive Officer of the company. Ms. Gutiérrez's civic and community involvement includes serving as a member of the Metropolitan Planning Board for Miami-Dade County, Destination Florida Commission, and she is an emeritus member of the Community Partnership for the Homeless Center. She was appointed to the Authority by the Commission and her term expires February 7, 2013. Ms. Gutiérrez served as Chair of the Authority from July 1, 2007 through June 30, 2010.

**Robert W. Holland, Esq.** Mr. Holland is founder of The Law Office of Robert W. Holland. His practice includes government relations, land use, real estate, contracts and family law. Mr. Holland was the former Chief of Staff for County Commissioner Betty Ferguson. Mr. Holland has a Bachelor of Science in Political Science from Morehouse College and a Juris Doctorate from the University of Miami School of Law. He is a member of The Florida Bar, NAACP and the Dade County Bar Association. He was appointed to the Authority by the Commission and his term expires on February 7, 2013.

**Nick A. Inamdar.** Nick A. Inamdar is Vice President of The Gatehouse Group. The Gatehouse Group is an industry leader in the acquisition, development, marketing, and management of apartment communities throughout the United States. Mr. Inamdar is an advocate for affordable housing issues and is involved with the Legislative Committee of the statewide Coalition of Affordable Housing Providers. Prior to joining The Gatehouse Group, Mr. Inamdar was a consultant for federal, state, county and municipal elected officials and candidates. Mr. Inamdar graduated from The Florida State University. He was appointed to the Authority by the Governor of Florida and his term expired on February 7, 2010. He remains a member until his successor is appointed.

**Al Maloof, Ph.D.** Mr. Maloof is the managing director of GJB Consulting LLC, affiliate of the Genovese, Joblove & Battista, P.O. law firm. Mr. Maloof served as a member of the Governor's transition team to review the operation of the Florida Department of Transportation and on the 2025 Florida Transportation Plan Steering Committee. Mr. Maloof is a member of several organizations including the American Public Transportation Association. He currently serves on the board of directors of the Greater Miami Chamber of Commerce and is a member of the Chairman's Circle. Mr. Maloof has a bachelor's degree in political science and a master's and doctorate degree in public administration. He was appointed to the Authority by the Commission and his term expires February 7, 2013.

**Gonzalo Sanabria.** Gonzalo Sanabria is the managing member of Southern Business Brokers, LLC (SBB) and President of Real Estate Works, Inc. He formerly served as Vice Chair of the Miami-Dade Expressway Authority and as chairman of the MDX Operations Committee. In addition, Mr. Sanabria has been involved with the Beacon Council, as Honorary Chairman of the Small Business Council and serves on the Executive Committee of Baptist Hospital

Foundation and Doctors Hospital Board in Coral Gables, Florida. He earned his undergraduate degree in economics from Windham College in Vermont. He was appointed to the Authority by the Governor of Florida and his term expires on April 6, 2013.

**Shelly Smith Fano.** Ms. Smith Fano is the director of Miami Dade College, School of Business's Hospitality Management Program. She is active in local, state and federal civic organizations. She received an associate in arts degree from Miami Dade College, a bachelor's degree in modern languages and a master's degree in hospitality management from Florida International University and is currently pursuing her doctorate in organizational leadership from Northcentral University. She was appointed to the Authority by the Governor of Florida and her term expires on April 6, 2012.

**Yvonne Soler-McKinley.** Ms. Soler-McKinley is currently the City Manager for the City of Doral, Florida. Her prior positions include former City Manager of the City of South Miami, Florida, Executive Director of the Miami Bayside Foundation and Executive Director of the Presidents Advisory Board for Office of Cuba Broadcasting. Ms. Soler-McKinley holds an Associates degree in Business from Miami-Dade Community College, a Bachelor of Arts degree in International Relations and Economics from Florida International University, and a Masters degree in Public Administration from Florida International University. She was appointed to the Authority by the Commission and her term expires February 7, 2013.

**Norman Wartman.** Mr. Wartman is the immediate past Chairman of the Miami-Dade County Citizens Transportation Advisory Committee (CTAC). He has been an active member of CTAC for over 22 years and currently is the chairman of the surface transportation subcommittee. A former member of the original MDX board, he has lived in South Florida for over 44 years. He attended Florida International University where he wrote a master's thesis on traffic and transportation. He was appointed to the Authority by the Governor of Florida and his term expires on April 6, 2013.

### **Authority Management**

The management staff of the Authority is comprised of an Executive Director, a Deputy Executive Director/Director of Toll Operations, a Director of Finance/Chief Financial Officer, a Director of Engineering and a General Counsel. The Authority operates under a management philosophy which provides for a qualified administrative staff of limited size and reliance upon contracted consultant assistance for specific tasks.

Executive Director. Javier Rodriguez, P.E., was selected by the Board to serve as the second Executive Director of the Authority, commencing on March 2, 2007. Mr. Rodriguez holds a Bachelor of Science degree in Civil Engineering from Florida International University.

Prior to joining the Authority, Mr. Rodriguez worked with the Florida Department of Transportation, District Six (FDOT) for 16 years, including four years as Director of Transportation Development. While holding this position, Mr. Rodriguez supervised various projects to be implemented with future Public-Private Partnerships such as the Port of Miami Tunnel. He was responsible for the delivery of production and public transportation projects

such as the interchanges on SR 826 Palmetto Expressway, Miami International Airport and the Miami Intermodal Center.

Mr. Rodriguez's responsibilities encompass the operation and maintenance of the existing toll road system, its expansion and financing. This includes long-range planning, design, right-of-way acquisition, construction, purchasing and contracting, and enhancing relations with its partners: the State of Florida, the Department of Transportation, Florida's Turnpike Enterprise, Miami-Dade County, Metropolitan Planning Organization, state and local agencies and municipalities.

Deputy Executive Director/Director of Toll Operations. Stephan P. Andriuk has served as Director of Toll Operations for the Authority since the inception of this position in March 2003. Mr. Andriuk is a graduate of George Mason University with a Bachelor of Science degree in Business Administration. His primary duties are to oversee all aspects of toll operations and provide liaison between the Toll Operations and the Authority staff on highway maintenance and operations, design and construction of Toll plaza capital improvements, audit of Toll revenue, and public communications. Previously, Mr. Andriuk was the Administrator of the Chesapeake Expressway in Chesapeake, Virginia. He has over 20 years of management experience, including over 16 years in toll operations. His tenure in Virginia included the procurement, installation, testing, integration and oversight of four different toll projects.

Director of Finance/Chief Financial Officer. Marie T. Schafer, CPA. Ms. Schafer assumed the role of the Authority's Director of Finance/Chief Financial Officer beginning June, 2005 and reports directly to the Executive Director. Ms. Schafer is responsible for the overall financial related activities including financial reporting, budgeting, debt administration, cash management and management of information systems. In addition to financial related duties, the Chief Financial Officer is also responsible for managing the day to day operational functions and developing policies/procedures of the Authority as directed by the Executive Director. Ms. Schafer has over 20 years of experience in the accounting profession from the public and private sector. Ms. Schafer is a licensed CPA in the State of Florida and is a member of the Florida Institute of Certified Public Accountants and Government Finance Officers Association. Ms. Schafer holds a Bachelor degree in Accounting from Florida International University and a Masters degree in Accounting from Saint Thomas Archdiocese University.

Director of Engineering. Alfred Lurigados, P.E., became the Director of Engineering in November 2004, responsible for the delivery of the Five-Year Work Program and construction, maintenance and management of the Authority's planning, design and construction of projects. Prior to accepting this position, Mr. Lurigados served as program manager of production at the Authority, which required him to oversee the coordination of individual work programs with respect to design, budgets and their impact on the Five-Year Work Program. Mr. Lurigados has a Bachelor of Science degree in Civil Engineering from Florida International University and is a registered professional engineer in the State of Florida. He has over 15 years of experience working with engineering companies in Miami for the Department as well as the Authority.

General Counsel. Pamela S. Leslie, Esq. has served as General Counsel to the Authority since October of 2008. Ms. Leslie received her Bachelor of Arts degree from Florida State University in 1974 and her Juris Doctorate degree from Florida State University College of Law

in 1983. Prior to joining the Authority, she represented the State of Florida in various capacities, including counsel for the Florida Supreme Court. She represented the Florida Department of Transportation from 1990 until 2007. Ms. Leslie served as General Counsel for the Florida Department of Transportation for more than a decade during the administrations of two Governors and four different Secretaries of Transportation.

## **THE SYSTEM**

The System presently consists of five major expressways located in the County and known as the Airport Expressway (State Road 112), the East-West (Dolphin) Expressway (State Road 836), the South Dade (Don Shula) Expressway (State Road 874), the Snapper Creek Expressway (State Road 878) and the Gratigny Parkway (State Road 924). Currently, each of the System's expressways is a Toll facility. As further described below, the Authority is in the process of implementing ORT on the System. A map of the existing System appears in the front of this Official Statement. For a more complete description of the System, see "APPENDIX B – Report of General Engineering Consultant (HNTB)" herein. See also "Open Road Tolling" below for a description of ORT and its implementation on the System.

### **The Expressways**

Airport Expressway. The Airport Expressway originally opened in 1961 and extends for approximately 4.1 miles from Miami International Airport (the "Airport") on the west to I-95 on the east and contains 26.4 lane miles. It provides access from the Airport to downtown Miami, the beaches as well as northern Miami-Dade County and Broward County. The one main Toll plaza is situated across the eastbound lanes only. There are three manual Toll collection lanes, and two dedicated high-speed electronic Toll collection lanes which utilize an automatic vehicle identification concept and is known as "SunPass"®. One of the manual Toll collection lanes also has SunPass® to provide for mixed usage. The Authority anticipates implementing ORT on the Airport Expressway prior to the end of Fiscal Year 2014. See "Open Road Tolling" below for a description of ORT and its implementation on the System. For a description of the ORT gantry locations, see "APPENDIX B - Report of General Engineering Consultant (HNTB)" herein.

East-West (Dolphin) Expressway. The East-West (Dolphin) Expressway opened originally in 1965 and extends west to east for approximately 14 miles providing access from the western suburban area of the County to the Airport, downtown Miami and the beaches and contains 98.7 lane miles. In 2007 the Authority completed an extension, which results in a new four lane, 2.2 mile extension westward to a new interchange at Northwest 137<sup>th</sup> Avenue. This extension is a SunPass® only facility which has six (6) lanes of high-speed electronic SunPass® Toll collection equipment on a gantry just east of N.W. 137<sup>th</sup> Avenue. There is no manual Toll collection provided at this location. A new two way Toll plaza on the existing East-West (Dolphin) Expressway was constructed just west of 97<sup>th</sup> Avenue. This mainline Toll plaza includes one dedicated four lane high-speed electronic SunPass® collection facility in each direction. The Toll plaza also includes two manual collection facilities separated from, but immediately adjacent to, the high-speed electronic Toll collection facility. The west bound Toll plaza has five lanes, three of which are manual collections, one mixed use with SunPass® capabilities and one SunPass® only lane dedicated for N.W. 107<sup>th</sup> Avenue North ramp traffic. The east bound Toll plaza has a total of four lanes which include two manual lanes, one mixed

use and one dedicated SunPass® only lane. There is another main Toll plaza located just west of N.W. 17<sup>th</sup> Avenue interchange collecting Tolls in the east bound direction only. This Toll facility was reconstructed to include dual high-speed electronic SunPass® lanes and a separate Toll plaza with six manual Toll collection lanes separated by a barrier wall. Two of the manual Toll collection lanes are also equipped with SunPass® to provide for mixed usage. The East-West (Dolphin) Expressway also has a separate ramp with its own four lane Toll plaza to N.W. 17<sup>th</sup> Avenue, in which two lanes are mixed use collections and two lanes are dedicated to SunPass® only. The Authority anticipates implementing ORT on the East-West (Dolphin) Expressway prior to the end of Fiscal Year 2014. See “Open Road Tolling” below for a description of ORT and its implementation on the System. For a description of the ORT gantry locations, see “APPENDIX B - Report of General Engineering Consultant (HNTB)” herein.

South Dade (Don Shula) Expressway. The South Dade (Don Shula) Expressway opened in 1974. It extends southwest to northeast for 7.2 miles connecting the southwest suburban area of the County from the Homestead extension of the Florida Turnpike (the “HEFT”) to the Palmetto Expressway and contains a total of 42.6 lane miles. ORT commenced operations on the South Dade (Don Shula) Expressway on July 17, 2010. See “Open Road Tolling” below for a description of ORT and its implementation on the System. For a description of the ORT gantry locations, see “APPENDIX B - Report of General Engineering Consultant (HNTB)” herein.

Snapper Creek Expressway. The Snapper Creek Expressway opened in 1974 and extends west to east for 3 miles connecting the South Dade (Don Shula) Expressway and the southwest suburban area of the County to U.S. 1 and the southern terminus of Metrorail, the County’s rapid rail system and contains 13.6 lane miles. ORT commenced operations on the Snapper Creek Expressway on July 17, 2010. Prior to the implementation of ORT, this expressway was not a Toll road. See “Open Road Tolling” below for a description of ORT and its implementation on the System. For a description of the ORT gantry locations, see “APPENDIX B - Report of General Engineering Consultant (HNTB)” herein.

Gratigny Parkway. The Gratigny Parkway opened in 1992 and extends west to east for approximately 5.4 miles providing access from Broward County through I-75 and from the Palmetto Expressway in northwest Miami-Dade County to major arterials in northern Miami-Dade County which connect to I-95 and contains a total of 39.7 lane miles. ORT commenced operations on the Gratigny Parkway on June 7, 2010. See “Open Road Tolling” below for a description of ORT and its implementation on the System. For a description of the ORT gantry locations, see “APPENDIX B - Report of General Engineering Consultant (HNTB)” herein.

## **Open Road Tolling**

The Authority identified a substantial need to improve mobility throughout the System and to implement Tolls in a more equitable manner so that users of the System pay Tolls in proportion to the length of their drive on the System. The Authority determined that ORT was the solution to both of these needs. Beginning with the approval by the Board of the ORT master plan in 2006 (the “ORT Master Plan”), the Authority began a major initiative to fully integrate the System with ORT.

ORT, also referred to as All Electronic Tolling, is a set of integrated technologies that allows for the payment of Tolls electronically using Toll equipment that is located on overhead gantries and embedded in the roadway. ORT is essentially a Toll system without tollbooths, where traffic flows unimpeded at highway speeds.

The tolling equipment located in the Toll lanes is connected to a central computer system in a back office location where data recording, reconciliation, reporting, invoicing and auditing take place. Because of equipment and ETC system redundancy and the high level of automated processing and reporting, human error and potential for mistakes and fraud are significantly reduced. Further, cost efficiencies are realized with the elimination of cash collection and handling as well as the elimination of Toll plazas, the expansion of automated payment options for customers, and the improved ability to identify and pursue violators.

Due to the limited number of Toll locations on the existing System, Tolls are currently collected from approximately 55 percent of the users of the System. The remaining 45 percent of the users travel on the System without paying. Increasing the number of traditional Toll plazas is not feasible due to the problems of traffic congestion, tight right of way constraints and the prohibitive capital and operating costs associated with cash-based Toll systems.

The Authority has begun implementation of ORT on the System with the intent of full integration no later than the end of Fiscal Year 2014. The Gratiigny Parkway, the first expressway of the System to have ORT implemented, commenced operations on June 7, 2010. The Authority commenced commercial ORT operations on both the South Dade (Don Shula) Expressway and the Snapper Creek Expressway on July 17, 2010. Prior to the implementation of ORT, the Snapper Creek Expressway was not a Toll road. ORT is expected to be implemented on the Airport Expressway and the East-West (Dolphin) Expressway no later than the end of Fiscal Year 2014. Upon full integration of ORT to the System, the Authority will collect Tolls on all but two small segments of the System.

Toll collection with ORT will be by either SunPass<sup>®</sup> or by Toll-by-Plate (also known as video tolling). The System currently provides for the use of SunPass<sup>®</sup> at all of the existing Toll facilities. System users can continue to use SunPass<sup>®</sup> after an expressway has implemented ORT. For those customers that do not chose to use SunPass<sup>®</sup> there are two account options related to Toll-by-Plate. Customers can establish a pre-paid account or be billed on a monthly basis. Toll-by-Plate customers will be charged a transaction fee and those customers that are billed on a monthly basis will also be charged an additional invoice fee. See the table captioned “Open Road Tolling Locations and Rates Effective Beginning Fiscal Year 2011” under “HISTORICAL AND FORECASTED FINANCIAL INFORMATION - Toll Rates” herein.

For a more detailed description of ORT, payment under ORT and the ORT implementation schedule for the System, see Section 4 entitled “Open Road Tolling” of “APPENDIX B - Report of General Engineering Consultant (HNTB)” herein.

## **Department Agreements**

Pursuant to the Transfer Agreement, the Department transferred full jurisdictional control over the operation, maintenance and finances of the System, in perpetuity, to the Authority on

December 10, 1996, including all rights to regulate, establish, collect and receive Tolls thereon. In addition, the Department conveyed certain physical assets of the System (other than roadways) along with all applicable balances in the funds and accounts established under the resolution pursuant to which the State Bonds were issued. The System is part of the National Highway System, Florida's State Highway System, Florida's Strategic Intermodal System and the Florida Intrastate Highway System, except that the Snapper Creek Expressway and the East-West (Dolphin) Expressway extension (NW 137<sup>th</sup> Avenue to the HEFT) are only part of the Florida's State Highway System.

While the Transfer Agreement and the associated Toll Operations and Maintenance Agreement, Roadway Operations and Maintenance Agreement and SunPass<sup>®</sup> Agreement, each dated December 10, 1996, between the Department and the Authority (collectively with the Transfer Agreement, the "Department Agreements") contained a number of payment obligations from the Authority to the Department, virtually all of those payment obligations have been fulfilled or eliminated by the Authority. The only payment obligation surviving under the Department Agreements is a contingent obligation in connection with potential claims related to the presence of hazardous substances on the System. The Authority has agreed to reimburse the Department for liabilities resulting from such claims from Revenues deposited in the General Account within the General Fund under the Indenture on a basis subordinate to the payment of debt service on the Bonds, except that any environmental liabilities of \$200,000 or less shall be reimbursed by the Authority to the Department as part of Operations and Maintenance Expenses from Revenues prior to the application of Revenues to the payment of debt service on the Bonds. In addition, the Department is required to pay or cause to be paid certain tort liabilities that are made, levied or assessed against the Department (that are not environmental liabilities) with respect to the System and the Authority is required to reimburse the Department for such payments of tort liabilities as part of Operations and Maintenance Expenses from Revenues prior to the application of Revenues to the payment of debt service on the Bonds. To date, there have been no claims relating to the System that could give rise to environmental or tort liabilities of the Department.

Notwithstanding the definition of "Annual Repayment Requirements" contained in the Indenture, the Annual Repayment Requirements for any Fiscal Year are currently limited to the environmental liabilities described in the preceding paragraph that may become payable by the Authority to the Department for such Fiscal Year pursuant to the Department Agreements.

### **Physical Condition of the System**

The Indenture requires that the Consulting Engineer perform an annual inspection of the System and issue an annual inspection report setting forth its findings and recommendations (the "Annual Inspection Report"). The most recent Annual Inspection Report for Fiscal Year 2009 was issued in June 2009 by EAC Consulting, Inc. ("EAC"), as Consulting Engineer. EAC determined that both the System's roadways and the Toll facilities were generally in good condition. Any exceptions are isolated and have been made a part of the Five-Year Work Program (2011-2015). Each bridge is inspected by certified bridge inspectors on a two year cycle from the date such bridge is originally placed in service. In general, the bridges are considered to be in good condition with only various minor repairs required. See "APPENDIX



B – Report of General Engineering Consultant (HNTB)” for a detailed description of the most recent Annual Inspection Report.

### Summary of Level of Service for the System

The following table summarizes the level of service at which the System operates. Estimated daily roadway capacity was derived from the Florida Highway System Plan Level of Service Standard and Guidelines Manual.

#### Existing System Level of Service (LOS) Summary

| <u>Roadway/Location</u> <sup>(1)</sup>                | <u>Existing Conditions</u>             |                                                           | <u>2008<br/>AADT</u> <sup>(2)</sup> | <u>Generalized Level of Service</u> |            |
|-------------------------------------------------------|----------------------------------------|-----------------------------------------------------------|-------------------------------------|-------------------------------------|------------|
|                                                       | <u>No. of<br/>Lanes<br/>(mainline)</u> | <u>Estimated Maximum<br/>Daily Capacity<br/>(Veh/Day)</u> |                                     | <u>Volume to<br/>Capacity Ratio</u> | <u>LOS</u> |
| <b>East-West (Dolphin)</b>                            |                                        |                                                           |                                     |                                     |            |
| <b>Expressway</b>                                     |                                        |                                                           |                                     |                                     |            |
| NW 137 <sup>th</sup> Ave. to HEFT                     | 4+0                                    | 79,400                                                    | 25,500                              | 0.32                                | A          |
| NW 107 <sup>th</sup> Ave. to NW 87 <sup>th</sup> Ave. | 8+0                                    | 166,000                                                   | 136,000                             | 0.82                                | D          |
| NW 72 <sup>nd</sup> Ave. to NW 57 <sup>th</sup> Ave.  | 8+0                                    | 149,400 <sup>(4)</sup>                                    | 208,000                             | 1.39                                | F          |
| NW 27 <sup>th</sup> Ave. to NW 17 <sup>th</sup> Ave.  | 6+0                                    | 110,430 <sup>(4)</sup>                                    | 137,500                             | 1.25                                | F          |
| <b>Airport Expressway</b>                             |                                        |                                                           |                                     |                                     |            |
| LeJeune Rd to NW 27 <sup>th</sup> Ave.                | 6+0                                    | 122,700                                                   | 98,000                              | 0.80                                | D          |
| NW 17 <sup>th</sup> Ave. to NW 12 <sup>th</sup> Ave.  | 9+0                                    | 187,600                                                   | 92,000                              | 0.49                                | A          |
| <b>South Dade (Don Shula)</b>                         |                                        |                                                           |                                     |                                     |            |
| <b>Expressway</b>                                     |                                        |                                                           |                                     |                                     |            |
| HEFT to Killian Pky.                                  | 4+1 <sup>(3)</sup>                     | 91,460 <sup>(4)</sup>                                     | 88,500                              | 0.97                                | E          |
| Killian Pky. to Kendall Dr.                           | 6+0                                    | 110,430 <sup>(4)</sup>                                    | 121,000                             | 1.10                                | F          |
| S.R. 878 to S.R. 826                                  | 4+0                                    | 71,460 <sup>(4)</sup>                                     | 67,000                              | 0.97                                | E          |
| <b>Gratigny Parkway</b>                               |                                        |                                                           |                                     |                                     |            |
| S.R. 826 to NW 57 <sup>th</sup> Ave.                  | 6+0                                    | 122,700                                                   | 62,000                              | 0.51                                | A          |
| NW 57 <sup>th</sup> Ave. to LeJeune Rd.               | 6+0                                    | 122,700                                                   | 43,000                              | 0.35                                | A          |
| <b>Snapper Creek Expressway</b>                       |                                        |                                                           |                                     |                                     |            |
| S.R. 874 to SW 87 <sup>th</sup> Ave.                  | 4+0                                    | 79,400                                                    | 50,000                              | 0.63                                | C          |
| SW 87 <sup>th</sup> Ave. to SW 72 <sup>nd</sup> Ave.  | 4+0                                    | 79,400                                                    | 48,000                              | 0.60                                | C          |

Source: Report of General Engineering Consultant (HNTB).

(1) All data presented in this table pertains to mainline sections of the designated roadways in the vicinity of each existing or proposed Toll plaza, except for the Snapper Creek Expressway which has no Toll plaza.

(2) Annual average daily traffic volumes (“AADT”) for calendar year 2008 obtained from 2008 AADT Report for Miami-Dade County, May, 2008.

(3) Based on 2009 FDOT General LOS table adjusted by (+20,000 Veh/Day) for auxiliary lane.

(4) Based on 2009 FDOT General LOS table adjusted by (-10%) for oversaturated conditions.

The concept of level of service (LOS) uses qualitative measures that characterize operational conditions within a traffic stream and their perception by motorists and passengers. The descriptions of individual levels of service characterize these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions and comfort and

convenience. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions. The acceptable LOS threshold for the existing System is LOS E, which is in accordance with the Department's designated minimum level of service standards for expressways within an urban area of over 500,000 residents. See "APPENDIX B – Report of General Engineering Consultant (HNTB)" herein for a more detailed description.

The most heavily traveled portion of the System is the eight lane East-West (Dolphin) Expressway from 72<sup>nd</sup> Avenue to 57<sup>th</sup> Avenue with an AADT for 2008 of 208,000 vehicles. This portion of the East-West (Dolphin) Expressway exceeds acceptable capacity by about thirty-nine percent (39%) throughout the day and is being addressed by the various projects within the Five-Year Work Program described below under "Capital Improvement Program".

### **Capital Improvement Program**

Long Range Plan. In Fiscal Year 1998, the Authority adopted an initial Long Range Master Transportation Plan to address a portion of the transportation improvement needs of the Miami-Dade County urban area through the Fiscal Year 2020 (the "2020 Master Transportation Plan"). The 2020 Master Transportation Plan identified potential projects including improvements to the existing System, Toll collection improvements and new expansion projects. The 2020 Master Transportation Plan has been updated with the 2035 Master Transportation Plan (the "2035 Master Transportation Plan").

As described above, in May 2006, the Board approved the ORT Master Plan. In accordance with the ORT Master Plan, the Authority has begun implementation of ORT on the System. See "THE SYSTEM – Open Road Tolling" above and "APPENDIX B – Report of General Engineering Consultant (HNTB)" herein, for a more detailed description of ORT.

Five-Year Work Program. The basis for the Authority's five year work program is the 2035 Master Transportation Plan and identifies projects which the Authority anticipates funding over the next five years (the "Five-Year Work Program"). The Five-Year Work Program is changed as priorities are reevaluated, projects are completed, new projects are identified and the financial capabilities of the Authority evolve. The current Five-Year Work Program covers the five year period from Fiscal Year 2011 to Fiscal Year 2015 and includes fifty-five projects with a combined total estimated cost of approximately \$494 million, including renewal and replacement projects as well as a contingency reserve. The projects contained in the Five-Year Work Program have been grouped into one of four categories as shown in the following table plus a contingency reserve.

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## Five-Year Work Program – Category Summary

| Category                                    | Project Cost (\$000s) <sup>(1)</sup> |           |          |          |          | Total     |
|---------------------------------------------|--------------------------------------|-----------|----------|----------|----------|-----------|
|                                             | Fiscal Year                          |           |          |          |          |           |
|                                             | 2011                                 | 2012      | 2013     | 2014     | 2015     |           |
| Existing System Improvements <sup>(2)</sup> | \$112,946                            | \$101,523 | \$38,932 | \$32,213 | \$25,069 | \$310,683 |
| System Expansion Projects <sup>(3)</sup>    | 29,245                               | 38,788    | 25,049   | 554      | -        | 93,636    |
| Facilities Improvements <sup>(4)</sup>      | 36,703                               | 20,426    | 8,720    | 3,063    | 199      | 69,111    |
| New Expressways <sup>(5)</sup>              | 3,805                                | 6,539     | 3,965    | 967      | -        | 15,276    |
| Contingency Reserve                         | 5,400                                | -         | -        | -        | -        | 5,400     |
| Totals                                      | \$188,099                            | \$167,276 | \$76,666 | \$36,797 | \$25,268 | \$494,106 |

Source: Report of General Engineering Consultant (HNTB).

(1) Includes escalation.

(2) Includes widening or reconstruction of existing System roadways.

(3) Includes construction of new roadway segments or new alignments of roadway segments to become part of the System.

(4) Includes non-routine maintenance and minor roadway, Toll plaza and Intelligent Transportation System (ITS) projects throughout the System.

(5) Includes new alignments of designated State Roads that will become part of the System.

For a more detailed description of the Five-Year Work Program, including a description of major projects included in the Five-Year Work Program, see “APPENDIX B – Report of General Engineering Consultant (HNTB)” herein.

### THE SERIES 2010 PROJECT

The Series 2010 Project consists of various activities for the several projects which are included in the Five-Year Work Program of the Authority as in effect from time to time.

The estimated amount of Series 2010A Bond proceeds to be allocated to the funding of the Five-Year Work Program is approximately \$307,500,000.00 million. Such projects or portions thereof funded with the proceeds of the Series 2010A Bonds are referred to as the “Series 2010 Project.” For a more detailed description of the Five-Year Work Program, see “APPENDIX B – Report of General Engineering Consultant (HNTB).”

### HISTORICAL AND FORECASTED FINANCIAL INFORMATION

#### Toll Rates

The Authority has the exclusive right to determine, fix, impose and collect Tolls for the use of the System. There is no other State of Florida executive, administrative or regulatory body with the authority to limit or restrict such rates and charges.

The table below sets forth the historical Toll rates paid by various classes of motor vehicles since 1989:

**Historical Toll Rates by Vehicle Class  
1989 to 2010**

|                                | <u>1989-<br/>1999</u> <sup>(1)</sup> | <u>1999-<br/>2001</u> <sup>(2)</sup> | <u>2001-<br/>2003</u> <sup>(3)</sup> | <u>2003-<br/>2005</u> <sup>(4)</sup> | <u>2005-<br/>2010</u> <sup>(5)(6)</sup> |
|--------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-----------------------------------------|
| Motor Vehicles with two axles  | \$ .25                               | \$ .50                               | \$ .75                               | \$1.00                               | \$1.25                                  |
| Motor Vehicles with three      | .50                                  | .75                                  | 1.00                                 | 2.00                                 | 2.50                                    |
| Motor Vehicles with four axles | .75                                  | 1.00                                 | 1.25                                 | 3.00                                 | 3.75                                    |
| Motor Vehicles with five axles | 1.00                                 | 1.25                                 | 1.50                                 | 4.00                                 | 5.00                                    |
| Each additional axle           | .25                                  | .25                                  | .25                                  | 1.00                                 | 1.25                                    |

Source: State of Florida, Department of Transportation, Office of the Comptroller; Authority.

- (1) Effective May 1, 1989 for the Airport Expressway; the East-West (Dolphin) Expressway; the South Dade (Don Shula) Expressway; and January 6, 1992 for the Gratigny Parkway.
- (2) Effective July 11, 1999 for the System; SunPass<sup>®</sup> users receive a 10% discount from the Toll rates provided.
- (3) Effective July 1, 2001; not applicable to Airport Expressway; SunPass<sup>®</sup> users receive a 10% discount from the Toll rates provided.
- (4) Effective March 7, 2004 for the East-West (Dolphin) Expressway, the South Dade (Don Shula) Expressway and the Gratigny Parkway. Airport Expressway increased \$0.25 per motor vehicle axle.
- (5) Effective July 3, 2005 Toll adjustment equalized Toll rates on all System expressways. SunPass<sup>®</sup> users are charged \$0.25 less from the Toll rates provided.
- (6) Effective July 1, 2007, East-West (Dolphin) Expressway 97th (east and west) Toll plaza began collection. The Toll rates are \$0.75 SunPass<sup>®</sup> and \$1.00 cash or \$0.25 less than the above rates. Effective July 1, 2007, East-West (Dolphin) Expressway 137th Extension two directional (east and west) ETC began. The Toll rates are \$0.25 SunPass<sup>®</sup>.

Currently, because of the locations of the Toll plazas, Tolls are collected from approximately 45 percent of the users of the System, with the balance, utilizing the System without paying a Toll. ORT will provide for collection of Tolls from most users of the System. For a discussion on ORT and its proposed implementation, see “THE SYSTEM – Open Road Tolling” above and “APPENDIX B – Report of the General Engineering Consultant (HNTB)” hereto.

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The table below sets forth historical average daily Toll transactions for each of the System's expressways that collect Tolls:

### Historical Average Daily Toll Transactions

| Expressways                          | Average Daily Transactions                |                   |                                           |                   |                                           |                   |                                           |                   |                                           |                   |
|--------------------------------------|-------------------------------------------|-------------------|-------------------------------------------|-------------------|-------------------------------------------|-------------------|-------------------------------------------|-------------------|-------------------------------------------|-------------------|
|                                      | Gratigny                                  |                   | Airport                                   |                   | East-West (Dolphin)                       |                   | South Dade (Don Shula)                    |                   | Total System                              |                   |
|                                      | Total<br>Average<br>Daily<br>Transactions | Percent<br>Change | Total<br>Average<br>Daily<br>Transactions | Percent<br>Change | Total<br>Average<br>Daily<br>Transactions | Percent<br>Change | Total<br>Average<br>Daily<br>Transactions | Percent<br>Change | Total<br>Average<br>Daily<br>Transactions | Percent<br>Change |
| <b>Fiscal Year<sup>(1)</sup></b>     |                                           |                   |                                           |                   |                                           |                   |                                           |                   |                                           |                   |
| 1999                                 | 36,250                                    | 7.4               | 36,908                                    | -1.5              | 66,428                                    | 1.8               | 76,113                                    | 6.3               | 215,699                                   | 3.7               |
| 2000 <sup>(2)</sup>                  | 32,834                                    | -9.4              | 32,084                                    | -13.1             | 60,211                                    | -9.4              | 72,208                                    | -5.1              | 197,337                                   | -8.5              |
| 2001                                 | 33,878                                    | 3.2               | 33,197                                    | 3.5               | 61,666                                    | 2.4               | 73,948                                    | 2.4               | 202,689                                   | 2.7               |
| 2002 <sup>(3)</sup>                  | 31,319                                    | -7.6              | 33,786                                    | 1.8               | 54,588                                    | -11.5             | 66,878                                    | -9.6              | 186,571                                   | -8.0              |
| 2003                                 | 32,221                                    | 2.9               | 32,499                                    | -3.8              | 53,144                                    | -2.6              | 69,098                                    | 3.3               | 186,962                                   | 0.2               |
| 2004 <sup>(4)</sup>                  | 33,136                                    | 2.8               | 33,414                                    | 2.8               | 56,268                                    | 5.9               | 69,653                                    | 0.8               | 192,471                                   | 2.9               |
| 2005 <sup>(6)</sup>                  | 34,781                                    | 5.0               | 32,531                                    | -2.6              | 58,633                                    | 4.2               | 71,586                                    | 2.8               | 197,531                                   | 2.6               |
| 2006 <sup>(5)(6)</sup>               | 33,655                                    | -3.2              | 29,690                                    | -8.7              | 57,726                                    | -1.5              | 72,241                                    | 0.9               | 193,312                                   | -2.1              |
| 2007                                 | 33,206                                    | -1.3              | 30,443                                    | 2.5               | 60,056                                    | 4.0               | 75,543                                    | 4.6               | 199,248                                   | 3.1               |
| 2008 <sup>(7)</sup>                  | 32,247                                    | -2.9              | 32,648                                    | 7.2               | 180,142                                   | 200.0             | 78,162                                    | 3.5               | 323,199                                   | 62.2              |
| 2009                                 | 29,969                                    | -7.1              | 34,036                                    | 4.3               | 176,643                                   | -1.9              | 77,491                                    | -0.9              | 318,139                                   | -1.6              |
| <b>Average Annual Percent Change</b> |                                           |                   |                                           |                   |                                           |                   |                                           |                   |                                           |                   |
| 1999-2004                            |                                           | (1.8)             |                                           | (2.0)             |                                           | (3.3)             |                                           | (1.8)             |                                           | (2.3)             |
| 2004-2009                            |                                           | (2.0)             |                                           | 0.4               |                                           | 25.7              |                                           | 2.2               |                                           | 10.6              |
| 1999-2009                            |                                           | (1.9)             |                                           | (0.8)             |                                           | 10.3              |                                           | 0.2               |                                           | 4.0               |

Source: Authority.

(1) Fiscal Year is 12 months from July 1 through June 30.

(2) Tolls increase in July 1999 from \$0.25 to \$0.50.

(3) Tolls increased in July 2001 from \$0.50 to \$0.75 at all plazas except the Airport Expressway.

(4) Cash Tolls increased by \$0.25 Systemwide; SunPass<sup>®</sup> nominal rates unchanged.

(5) Tolls increased to \$1.25 (cash) and \$1.00 (SunPass<sup>®</sup>) at all plazas in July 2005.

(6) Due to hurricane related Toll suspensions, average daily transactions in 2004/05 based on 359 days of operation, 2005/06 based on 356 days of operation.

(7) Tolling on new mainline Toll plaza on East-West (Dolphin) Expressway west of NW 97<sup>th</sup> Avenue and Extension to NW 137<sup>th</sup> Avenue begins July 1, 2007.

The table below sets forth the ORT gantry locations and ORT rates for the Gratigny Parkway, the South Dade (Don Shula) Expressway and the Snapper Creek Expressway:

### Open Road Tolling Locations and Rates

| <u>Expressway</u>         | <u>Effective Date</u> | <u>Tolling Point<br/>Gantry Locations</u>                                           | <u>Toll Rate<br/>Two Axle vehicle</u> | <u>Toll Rate Each<br/>Added Axle</u> | <u>Additional<br/>Toll By Plate<br/>Charge Two<br/>Axle Vehicle<sup>(1)</sup></u> | <u>Toll By Plate<br/>Charge Each<br/>Additional Axle</u> |
|---------------------------|-----------------------|-------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------|
| Gratigny                  | 06/07/2010            | EB between SR 826/Palmetto Expwy & NW 57 <sup>th</sup> Ave/Red Rd                   | \$0.50                                | \$0.50                               | \$0.15                                                                            | \$0.15                                                   |
|                           |                       | EB between NW 57 <sup>th</sup> Ave/Red Road & NW 42 <sup>nd</sup> Ave/LeJeune Rd    | 0.50                                  | 0.50                                 | 0.15                                                                              | 0.15                                                     |
|                           |                       | WB between NW 42 <sup>nd</sup> Ave/LeJeune Rd & NW 57 <sup>th</sup> Ave/Red Road    | 0.50                                  | 0.50                                 | 0.15                                                                              | 0.15                                                     |
|                           |                       | WB between NW 57 <sup>th</sup> Ave/Red Rd & SR 826/Palmetto Expwy                   | 0.50                                  | 0.50                                 | 0.15                                                                              | 0.15                                                     |
| South Dade<br>(Don Shula) | 07/17/2010            | NB between HEFT & SW 104 <sup>th</sup> St/Killian Pkwy                              | 0.25                                  | 0.25                                 | 0.15                                                                              | 0.15                                                     |
|                           |                       | NB between SW 104 <sup>th</sup> St/Killian Pkwy & SW 88 <sup>th</sup> St/Kendall Dr | 0.25                                  | 0.25                                 | 0.15                                                                              | 0.15                                                     |
|                           |                       | NB between SW 88 <sup>th</sup> St/Kendall Dr & SR 826/Palmetto Expwy                | 0.50                                  | 0.50                                 | 0.15                                                                              | 0.15                                                     |
|                           |                       | SB between SR 826/Palmetto Expwy & SW 88 <sup>th</sup> St/Kendall Dr                | 0.50                                  | 0.50                                 | 0.15                                                                              | 0.15                                                     |
|                           |                       | SB between SW 88 <sup>th</sup> St/Kendall Dr & SW 104 <sup>th</sup> St/Killian Pkwy | 0.25                                  | 0.25                                 | 0.15                                                                              | 0.15                                                     |
|                           |                       | SB between SW 104 <sup>th</sup> St/Killian Pkwy & HEFT                              | 0.25                                  | 0.25                                 | 0.15                                                                              | 0.15                                                     |
| Snapper<br>Creek          | 07/17/2010            | EB between SR 874/Don Shula Expwy & SW 87 <sup>th</sup> Ave/Galloway Rd             | 0.25                                  | 0.25                                 | 0.15                                                                              | 0.15                                                     |
|                           |                       | EB between SW 87 <sup>th</sup> Ave/Galloway Rd & US 1                               | 0.25                                  | 0.25                                 | 0.15                                                                              | 0.15                                                     |
|                           |                       | WB between US 1 & SW 87 <sup>th</sup> Ave/Galloway Rd                               | 0.25                                  | 0.25                                 | 0.15                                                                              | 0.15                                                     |
|                           |                       | WB between SW 87 <sup>th</sup> Ave/Galloway Rd & South Dade Expwy                   | 0.25                                  | 0.25                                 | 0.15                                                                              | 0.15                                                     |

Source: Authority.

(1) Customers billed on a monthly basis are also charged an additional \$3.00 fee per invoice to cover the Authority's administrative cost of billing.

The table below sets forth the Toll plaza locations and current rates for the East-West (Dolphin) Expressway and the Airport Expressway, where ORT is not being implemented prior to or during Fiscal Year 2011:

### **Toll Rates for Toll Plaza Locations**

| <u><b>Expressway</b></u>       | <u><b>Tolling Plaza Locations</b></u>                 | <u><b>Toll Rate Two Axle vehicle</b></u> |                        | <u><b>Toll Rate Each Added Axle</b></u> |                        |
|--------------------------------|-------------------------------------------------------|------------------------------------------|------------------------|-----------------------------------------|------------------------|
|                                |                                                       | <u><b>Cash</b></u>                       | <u><b>SunPass®</b></u> | <u><b>Cash</b></u>                      | <u><b>SunPass®</b></u> |
| East-West (Dolphin) Expressway | Mainline EB West of NW 17th Avenue                    | \$1.25                                   | \$1.00                 | \$1.25                                  | \$1.00                 |
|                                | Ramp to 17th Avenue                                   | 1.25                                     | 1.00                   | 1.25                                    | 1.00                   |
|                                | Mainline EB/WB West of NW 97th Avenue                 | 1.00                                     | 0.75                   | 1.00                                    | 0.75                   |
|                                | Mainline EB/WB East of NW 137th Avenue <sup>(1)</sup> | N/A                                      | 0.25                   | N/A                                     | 0.25                   |
| Airport Expressway             | Mainline EB West of 12th Ave.                         | 1.25                                     | 1.00                   | 1.25                                    | 1.00                   |

Source: Authority.

(1) SunPass® only.

On June 29, 2010, the Board adopted a resolution expressing the desire of the Authority to structure and develop a customer reward program to encourage the responsible and expanded use of the System. The Board directed staff of the Authority to make initial recommendations for the program no later than October 2010, within the following constraints set forth in the resolution: the program must (a) be available only to System users possessing a valid SunPass® account; (b) be available to any SunPass® account holder who uses the System to ensure equitable application of the program; (c) not jeopardize the ability of the Authority to satisfy its covenants under the Indenture; (d) not jeopardize compliance with the Authority's goal of a minimum debt service coverage ratio of 1.4\*; (e) not jeopardize the Authority's ratings of the Bonds; (f) have a finite and fixed cost; (g) be identified as a specific marketing expense in the Authority's annual operations budget; and (h) be developed in consideration of sufficient and adequate System and facility specific usage data available after initial implementation of ORT on a minimum of three System expressways. Also, the commencement and continuation of any such program must be at the sole discretion of the Board and the program must be discontinued at any time if any of the constraints listed above are not met.

### **Revenues, Expenses and Debt Service Coverage**

Wilbur Smith Associates (the "Traffic Consultant") was retained by the Authority to develop traffic and revenue forecasts for the System to be used in connection with the issuance of the Series 2010 Bonds. Forecasts of traffic and Toll revenue for the System were prepared by the Traffic Consultant for Fiscal Years through 2035 and included in a report dated July 16, 2010. Such report is included herein in "APPENDIX C – Traffic and Revenue Study" and should be read in its entirety.

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\* For a description of the Authority's toll covenant to Bondholders set forth in the Indenture, please see "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2010 BONDS -- Toll Covenant". The goal of a minimum debt service coverage ratio of 1.4 set forth in the resolution does not represent a covenant to Bondholders to maintain such ratio.

Presented in the tables below are summaries of historical Revenues, Operation and Maintenance Expenses and Toll covenant coverage ratios for Fiscal Years 2005 through 2009 and projected, budgeted and forecasted Revenues, Operation and Maintenance Expenses and Toll covenant coverage ratios for Fiscal Years 2010 through 2020. The table assumes no Additional Bonds being issued after the issuance of the Series 2010 Bonds. Toll revenue forecast includes Toll revenues for existing Toll facilities and the implementation of ORT on the Gratiigny Expressway, the South Dade (Don Shula) Expressway and the Snapper Creek Expressway but not on the Airport Expressway or the East-West (Dolphin) Expressway. The construction associated with ORT is included in the Five-Year Work Program. The issuance of any such Additional Bonds may require additional sources of revenues, including increases in Toll rates. The forecasts represent estimates only and there can be no assurance that such estimates will be realized.

**Historical Operating Summaries**  
**Fiscal Years Ended June 30, 2005 through 2009**  
(dollars in thousands)

|                                                                     | <u>2005</u>     | <u>2006</u>     | <u>2007</u>      | <u>2008</u>                 | <u>2009</u>      |
|---------------------------------------------------------------------|-----------------|-----------------|------------------|-----------------------------|------------------|
| <u>Revenues</u>                                                     |                 |                 |                  |                             |                  |
| Toll Revenues <sup>(1)</sup>                                        | \$58,652        | \$77,462        | \$ 82,030        | \$115,799                   | \$113,075        |
| Interest Income & Misc. Income                                      | 5,742           | 12,903          | 23,017           | 20,573                      | 14,374           |
| Contributions and Grants                                            | -               | -               | 4,857            | 480                         | 1,636            |
| Total Revenues                                                      | <u>\$64,394</u> | <u>\$90,365</u> | <u>\$109,904</u> | <u>\$136,852</u>            | <u>\$129,085</u> |
| <u>Operations and Maintenance Expenses</u>                          |                 |                 |                  |                             |                  |
| Operations                                                          | \$ 7,884        | \$13,649        | \$16,340         | \$20,057                    | \$22,536         |
| Maintenance                                                         | 5,046           | 2,379           | 7,343            | 3,904                       | 4,599            |
| Administrative                                                      | 4,416           | 5,341           | 5,812            | 5,551                       | 7,443            |
| Total Operations and Maintenance Expenses                           | <u>\$17,346</u> | <u>\$21,369</u> | <u>\$29,495</u>  | <u>\$29,512</u>             | <u>\$34,578</u>  |
| Net Revenues                                                        | <u>\$47,048</u> | <u>\$68,996</u> | <u>\$80,409</u>  | <u>\$107,340</u>            | <u>\$94,507</u>  |
| Net Debt Service Requirement                                        | \$26,392        | \$32,194        | \$32,518         | \$56,458                    | \$54,505         |
| Debt Service Coverage <sup>(2)</sup>                                | 1.78            | 2.14            | 2.47             | 1.90                        | 1.73             |
| Subordinate Debt                                                    | \$1,500         | \$2,570         | \$3,394          | \$11,967                    | \$8,959          |
| Other Fund Requirements                                             | <u>2,000</u>    | <u>3,500</u>    | <u>4,000</u>     | <u>14,000<sup>(3)</sup></u> | <u>7,246</u>     |
| Total                                                               | <u>\$3,500</u>  | <u>\$6,070</u>  | <u>\$7,394</u>   | <u>\$25,967</u>             | <u>\$16,205</u>  |
| Coverage of Debt Service and Other Fund Requirements <sup>(4)</sup> | 1.57            | 1.80            | 2.01             | 1.30                        | 1.34             |

Source: Authority.

(1) Includes revenues from Toll violation enforcement.

(2) Requirement equals 1.20 times coverage per the Indenture.

(3) Includes \$10,023,138 to fund the Debt Service Reserve Fund due to ratings downgrade of the reserve surety providers.

(4) Requirement equals 1.00 times coverage per the Indenture.



**Projected, Budgeted and Forecasted Operating Summaries**  
**Fiscal Years Ending June 30, 2010 through 2020**  
(dollars in thousands)

|                                                                        | Projected<br>2010 | Budgeted<br>2011    | Forecasted       |                  |                  |                  |                  |                  |                  |                  |                  |
|------------------------------------------------------------------------|-------------------|---------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                                                                        | 2012              | 2013                | 2014             | 2015             | 2016             | 2017             | 2018             | 2019             | 2020             |                  |                  |
| <b>Revenues</b>                                                        |                   |                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Toll Revenues <sup>(1)</sup>                                           | \$106,650         | \$125,763           | \$134,804        | \$138,324        | \$142,035        | \$145,944        | \$149,883        | \$153,938        | \$158,113        | \$162,412        | \$166,837        |
| Violation Revenues                                                     | 2,817             | -( <sup>(2)</sup> ) | 1,500            | 1,500            | 1,500            | 1,500            | 1,500            | 1,500            | 1,500            | 1,500            | 1,500            |
| Interest Income & Misc. Income                                         | 5,805             | 5,148               | 11,327           | 10,977           | 10,017           | 9,547            | 9,341            | 9,110            | 9,349            | 10,516           | 11,603           |
| Total Revenues                                                         | \$115,272         | \$130,911           | \$147,631        | \$150,801        | \$153,552        | \$156,991        | \$160,724        | \$164,548        | \$168,962        | \$174,428        | \$179,940        |
| <b>Operations and<br/>Maintenance Expenses<sup>(3)</sup></b>           |                   |                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Operations                                                             | \$ 19,634         | \$ 22,829           | \$ 24,111        | \$ 24,240        | \$ 24,702        | \$ 25,577        | \$ 26,439        | \$ 27,589        | \$ 29,083        | \$ 29,490        | \$ 30,865        |
| Maintenance                                                            | 6,307             | 6,590               | 7,034            | 7,243            | 7,696            | 8,139            | 8,355            | 8,571            | 8,907            | 9,142            | 9,715            |
| Administrative                                                         | 6,956             | 7,423               | 7,890            | 8,279            | 8,681            | 9,156            | 9,506            | 9,866            | 10,237           | 10,619           | 11,012           |
| Total Operations and<br>Maintenance Expenses                           | \$ 32,897         | \$ 36,842           | \$ 39,035        | \$ 39,762        | \$ 41,079        | \$ 42,872        | \$ 44,300        | \$ 46,026        | \$ 48,227        | \$ 49,251        | \$ 51,592        |
| Net Revenues                                                           | <u>\$ 82,375</u>  | <u>\$ 94,070</u>    | <u>\$108,596</u> | <u>\$111,039</u> | <u>\$112,473</u> | <u>\$114,119</u> | <u>\$116,425</u> | <u>\$118,522</u> | <u>\$120,736</u> | <u>\$125,177</u> | <u>\$128,348</u> |
| Net Debt Service<br>Requirement <sup>(4)</sup>                         | <u>\$ 56,943</u>  | <u>\$ 60,042</u>    | <u>\$ 75,565</u> | <u>\$ 77,317</u> | <u>\$ 78,009</u> | <u>\$ 79,845</u> | <u>\$ 81,961</u> | <u>\$ 84,073</u> | <u>\$ 85,699</u> | <u>\$ 87,609</u> | <u>\$ 82,754</u> |
| Debt Service Coverage <sup>(5)</sup>                                   | 1.45x             | 1.57x               | 1.44x            | 1.44x            | 1.44x            | 1.43x            | 1.42x            | 1.41x            | 1.41x            | 1.43x            | 1.55x            |
| Subordinate Debt <sup>(6)</sup>                                        | \$ 6,758          | \$ 9,010            | \$ 13,840        | \$ 9,010         | \$ 5,356         | \$ 6,138         | \$ 6,048         | \$ 3,686         | \$ 2,936         | \$ 500           | \$ 250           |
| Other Fund Requirements <sup>(7)</sup>                                 | 3,736             | 15,123              | 7,963            | 2,349            | 576              | 291              | 26               | 111              | 182              | 57               | 10,043           |
| Total                                                                  | <u>\$ 10,494</u>  | <u>\$ 24,133</u>    | <u>\$ 21,803</u> | <u>\$ 11,359</u> | <u>\$ 5,932</u>  | <u>\$ 6,429</u>  | <u>\$ 6,074</u>  | <u>\$ 3,797</u>  | <u>\$ 3,118</u>  | <u>\$ 557</u>    | <u>\$ 10,293</u> |
| Coverage of Debt Service and<br>Other Fund Requirements <sup>(8)</sup> | 1.22x             | 1.12x               | 1.12x            | 1.25x            | 1.34x            | 1.32x            | 1.32x            | 1.35x            | 1.36x            | 1.42x            | 1.38x            |

Source: Forecasted Toll Revenues from Traffic and Revenue Study, Appendix C. Remainder from Authority.

(1) Assumes ORT for the Gratiigny Parkway began July 1, 2010 and on the South Dade (Don Shula) Expressway and the Snapper Creek Expressway beginning January 1, 2011. Assumes the Airport Expressway and the East-West (Dolphin) Expressway Tolls remain the same. Includes administrative fee for video collection. Toll Revenues are net of allowance for uncollectible video customers.

(2) Violation revenues were not budgeted for Fiscal Year 2011 because of the transition to ORT.

(3) Projection of Operations and Maintenance Expenses based on recommendations of HNTB. Administrative Expenses based on Authority's projection. A customer reward program was not included in projected Administrative Expenses as such program has not been implemented at this time.

(4) For Fiscal Year 2011, Net Debt Service Requirement includes budgeted debt service for the Series 2010 Bonds and thereafter includes debt service for the Series 2010 Bonds but not for any future Additional Bonds.

(5) Requirement equals 1.20 times coverage per the Indenture.

(6) Annual repayment requirement on SIB Loans and Toll Facilities Revolving Trust Fund loans.

(7) These disbursements reflect deposits into the Renewal and Replacement Fund, forecasted by HNTB.

(8) Requirement equals 1.00 times coverage per the Indenture.

## **MANAGEMENT'S DISCUSSION AND ANALYSIS OF RESULTS OF OPERATIONS**

### **Results of Operations: Fiscal Years 2008 and 2009**

The following is an overview of the financial results of operations for Fiscal Years 2008 and 2009.

Revenues - Revenues were \$ 129.1 million and \$ 136.6 million for Fiscal Years 2009 and 2008, respectively. Revenues include Toll revenues of approximately \$113.1 million and \$115.8 million for Fiscal Years 2009 and 2008, respectively. Toll revenues for Fiscal Year 2009 decreased \$2.7 million or 2.4% over Fiscal Year 2008, compared to an increase for Fiscal Year 2008 of \$33.8 million or 41.2% over Fiscal year 2007. For Fiscal Year 2009, the decrease was due primarily to economic conditions adversely impacted by the housing market and rising unemployment. The increase for Fiscal Year 2008 was due primarily to the opening of the new Toll plaza on the East-West (Dolphin) Expressway at 97<sup>th</sup> Avenue, as well as the new tolling points on the East-West (Dolphin) Expressway 137<sup>th</sup> Avenue extension, which was partially offset by a decrease in traffic and revenue on the East-West (Dolphin) Expressway 17<sup>th</sup> Avenue Toll plaza and the Gratigny Parkway Toll plaza.

Operating Expenses – Total operating expenses were \$55.7 million and \$49.7 million for Fiscal Years 2009 and 2008, respectively. Operating expenses increased in Fiscal Year 2009 by \$6.0 million or 12.1% over Fiscal Year 2008, as compared to an increase of \$8.4 million or 20.2% over Fiscal Year 2007.

Change in Net Assets -- The Authority's change in net assets was \$47.7 million in Fiscal Year 2009 compared to \$56.6 million in Fiscal Year 2008.

Debt Service Requirement – In Fiscal Years 2009 and 2008, the debt service requirements (principal and interest) for all Outstanding Bonds were approximately \$54.5 million and \$56.5 million, respectively. The Authority's senior debt service ratio for all Outstanding Bonds was 1.73 and 1.90 for Fiscal Years 2009 and 2008, respectively.

For more detailed information, see "APPENDIX D - Audited Financial Statements of the Authority Fiscal Years Ended June 30, 2008 and 2009".

### **Results of Operations: Fiscal Year 2010 (Unaudited 9 months)**

Revenues - For the 9-month period ended March 31, 2010, Revenues were approximately \$88.8 million, a \$1.3 million or 1.48% increase from forecasted Revenues during the same period. Revenues are comprised of Toll revenues of approximately \$81.7 million, violation revenues of \$2.1 million and investment/other income of \$5 million.

Operating Expenses - For the same period, operating expenses were approximately \$25.0 million, a \$2.4 million or 8.8% decrease from budgeted operating expenses for such period. Operating expenses are comprised of operations expenses of approximately \$14.1 million, maintenance expenses of approximately \$4.1 million and administrative expenses of approximately \$6.8 million.

Non-Operating Expenses - For the 9-month period ended March 31, 2010, non-operating expenses were approximately \$36.0 million, approximately \$1.6 million or 4.4% decrease from budgeted expenses for such period. Non-operating expenses consist entirely of interest expenses.

Change in Net Assets - The Authority's change in net assets for the 9-month period ended March 31, 2010 was approximately \$27.8 million, \$5.4 million or 24.2% above forecast.

Such results do not include depreciation and amortization expense, indirect cost allocation deduction for administration expenses and capitalized interest as these adjustments are reflected at the end of the Fiscal Year.

Cash and Cash Equivalents - As of March 31, 2010, the book value of the Authority's cash balances were approximately \$157.4 million, including \$142.9 million in restricted funds.

Investments - As of March 31, 2010, the Authority's investments were approximately \$139.2 million, including \$107.6 million of restricted investments. The Authority's investments are stated at fair value which is either a quoted market price or best available estimate.

### **Fiscal Year 2011 Budget**

On April 27, 2010, the Board approved the Fiscal Year 2011 annual operating budget, which is approximately 120.3 million. The overall budget is comprised of an operating expense budget of approximately \$38.5 million, interest expense budget of approximately \$50.7 million, a funding requirement budget of approximately \$30.5 million and a capital (non-project related) budget of \$512,000.

Revenues for Fiscal Year 2011 are projected to be approximately \$124.8 million, comprised of Toll revenues of approximately \$119.4 million (net of allowance for uncollectible video customers and hurricane allowance) and investment/other income of approximately \$5.4 million. Preliminary estimates of Revenues were utilized prior to the finalization of the Traffic and Revenue Study, which reflects a slight increase from budgeted Revenues.

### **CONTINUING DISCLOSURE**

The Authority has agreed for the benefit of the Owners and the Beneficial Owners of the Series 2010 Bonds to provide certain financial information and operating data relating to it and the Series 2010 Bonds in each year (the "Annual Report"), and to provide notices of the occurrence of certain enumerated events, if material. Such agreements shall only apply so long as the Series 2010 Bonds remain outstanding under the Indenture. The Annual Report will be provided by the Authority to The Bank of New York Mellon Trust Company, N.A., as its dissemination agent (the "Dissemination Agent"), which Dissemination Agent shall provide such Annual Report to the centralized information repository developed and operated by the Municipal Securities Rulemaking Board through the Electronic Municipal Market Access System, EMMA described in the Form of the Continuing Disclosure Agreement attached as Appendix F hereto. The notices of material events will be provided by the Dissemination Agent, upon the instructions of the Authority, to EMMA. The specific nature of the information to be contained in the Annual Report and the notices of material events are described in "APPENDIX F - The Continuing Disclosure Agreement," which shall be executed between the Authority and

the Dissemination Agent at the time of issuance of the Series 2010 Bonds. With respect to the Series 2010 Bonds, no party other than the Authority is obligated to provide, nor is expected to provide, any continuing disclosure information.

Within the past five years, the Authority is in compliance with its prior continuing disclosure undertakings entered into pursuant to SEC Rule 15c2-12.

## **LITIGATION**

There is no litigation pending or, to the knowledge of the Authority, threatened, seeking to restrain or enjoin the issuance or delivery of the Series 2010 Bonds or the operation and financial control of the System by the Authority or questioning or affecting the validity of the Series 2010 Bonds or the proceedings and authority under which the Series 2010 Bonds are to be issued. Neither the creation, organization or existence, nor the title of the present members or other officers of the Authority to their respective offices is being contested. There is no litigation pending which in any manner questions the enforceability of the Act, the Indenture, the Department Agreements, the collection of the Tolls, the receipt of Revenues, or the pledge and use thereof for the payment of the principal of and interest on the Series 2010 Bonds.

## **ENFORCEABILITY OF REMEDIES**

The remedies available to the holders of the Series 2010 Bonds upon an Event of Default under the Indenture are in many respects dependent upon judicial actions which are often subject to discretion and delay. Under existing constitutional and statutory law and judicial decisions, the remedies specified by the Indenture may not be readily available or may be limited. The various legal opinions to be delivered concurrently with the delivery of the Series 2010 Bonds will be qualified, as to enforceability of the various legal instruments, by limitations imposed by bankruptcy, reorganization, insolvency or other similar laws affecting the rights of creditors enacted before or after such delivery.

## **LEGALITY**

Certain legal matters incident to the validity of the Series 2010 Bonds are subject to the approval of Greenberg Traurig, P.A., Miami, Florida, and Edwards & Associates, P.A., Miami, Florida, Co-Bond Counsel, whose approving opinions, the proposed form of which is attached hereto as Appendix G, will be delivered at the time of issuance of the Series 2010 Bonds. Certain legal matters will be passed upon for the Authority by its General Counsel, and for the Underwriters by their counsel, Squire, Sanders & Dempsey L.L.P., Miami, Florida. Payment of fees for services rendered by Co-Bond Counsel and counsel to the Underwriters relating to authorization, sale, execution and delivery of the Series 2010 Bonds is contingent on the issuance and delivery of the Series 2010 Bonds.

## **TAX MATTERS**

### **General**

In the opinion of Greenberg Traurig, P.A. and Edwards & Associates, P.A., Co-Bond Counsel, under existing statutes, regulations, rulings and court decisions and assuming

continuing compliance with certain covenants and the accuracy of certain representations, (1) interest on the Series 2010 Bonds will be excludable from gross income for federal income tax purposes, (2) interest on the Series 2010A Bonds will not be an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations and such interest on the Series 2010A Bonds will not be taken into account in determining adjusted current earnings for the purpose of computing the alternative minimum tax imposed on certain corporations, (3) interest on the Series 2010B Bonds will not be an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations; however, such interest will be taken into account in determining adjusted current earnings for the purpose of computing the alternative minimum tax imposed on certain corporations, and (4) the Series 2010 Bonds and the income thereon will not be subject to taxation under the laws of the State, except estate taxes and taxes under Chapter 220, Florida Statutes, as amended, on interest, income or profits on debt obligations owned by corporations as defined therein.

The above opinion on federal tax matters will be based on and will assume the accuracy of certain representations and certifications, and compliance with certain covenants, of the Authority to be contained in the transcript of proceedings and that are intended to evidence and assure the foregoing, including that the Series 2010 Bonds will be and will remain obligations, the interest on which is excludable from gross income for federal income tax purposes. Co-Bond Counsel will not independently verify the accuracy of those certifications and representations. Co-Bond Counsel will express no opinion as to any other tax consequences regarding the Series 2010 Bonds.

The Code prescribes a number of qualifications and conditions for the interest on state and local government obligations to be and to remain excludable from gross income for federal income tax purposes, some of which require future or continued compliance after issuance of the obligations in order for the interest to be and to continue to be so excludable from the date of issuance. Noncompliance with these requirements by the Authority may cause the interest on the Series 2010 Bonds to be included in gross income for federal income tax purposes and thus to be subject to federal income tax retroactively to the date of issuance of the Series 2010 Bonds. The Authority has covenanted to take the actions required of it for the interest on the Series 2010 Bonds to be and to remain excludable from gross income for federal income tax purposes, and not to take any actions that would adversely affect that excludability.

Except as described above, Co-Bond Counsel will express no opinion regarding the federal income tax consequences resulting from the ownership of, receipt of interest on, or disposition of the Series 2010 Bonds. Prospective purchasers of the Series 2010 Bonds should be aware that the ownership of Series 2010 Bonds may have certain collateral federal income tax consequences on items of income, deduction or credit for certain taxpayers, including financial institutions, certain insurance companies, recipients of Social Security and Railroad Retirement benefits, those that are deemed to incur or continue indebtedness to acquire or carry tax-exempt obligations, foreign corporations doing business in the United States, S corporations and individuals otherwise eligible for the earned income tax credit. The applicability and extent of these or other tax consequences will depend upon the particular tax status or other tax items of the owner of the Series 2010 Bonds. Prospective purchasers of the Series 2010 Bonds should consult their own tax advisors as to the impact of these other tax consequences. Co-Bond Counsel will express no opinion regarding those consequences.

Purchasers of the Series 2010 Bonds at other than their original issuance at the respective prices or yields indicated on the inside cover of this Official Statement should consult their own tax advisors regarding other tax considerations such as the consequences of market discount.

From time to time, there are legislative proposals pending in Congress that, if enacted into law, could alter or amend one or more of the federal tax matters described above including, without limitation, the excludability from gross income of interest on the Series 2010 Bonds, adversely affect the market price or marketability of the Series 2010 Bonds, or otherwise prevent the holders from realizing the full current benefit of the status of the interest thereon. It cannot be predicted whether or in what form any such proposal may be enacted, or whether, if enacted, any such proposal would apply to the Series 2010 Bonds.

### **Original Issue Discount and Original Issue Premium**

Certain of the Series 2010 Bonds as indicated on the inside cover of this Official Statement (“Discount 2010 Bonds”) were offered and sold to the public at an original issue discount (“OID”). OID is the excess of the stated redemption price at maturity (the principal amount) over the “issue price” of a Discount 2010 Bond. The issue price of a Discount 2010 Bond is the initial offering price to the public (other than to bond houses, brokers or similar persons acting in the capacity of underwriters or wholesalers) at which a substantial amount of the Discount 2010 Bonds of the same maturity is sold pursuant to that offering. For federal income tax purposes, OID accrues to the owner of a Discount 2010 Bond over the period to maturity based on the constant yield method, compounded semiannually (or over a shorter permitted compounding interval selected by the owner). The portion of OID that accrues during the period of ownership of a Discount 2010 Bond (i) is interest excludable from the owner’s gross income for federal income tax purposes to the same extent, and subject to the same considerations discussed above, as other interest on the Series 2010 Bonds, and (ii) is added to the owner’s tax basis for purposes of determining gain or loss on the maturity, redemption, prior sale or other disposition of that Discount 2010 Bond. A purchaser of a Discount 2010 Bond in the initial public offering at the price for that Discount 2010 Bond stated on the inside cover of this Official Statement who holds that Discount 2010 Bond to maturity will realize no gain or loss upon the retirement of that Discount 2010 Bond.

Certain of the Series 2010 Bonds as indicated on the inside cover of this Official Statement (“Premium Bonds”) were offered and sold to the public at a price in excess of their stated redemption price (the principal amount) at maturity. That excess constitutes bond premium. For federal income tax purposes, bond premium is amortized over the period to maturity of a Premium Bond, based on the yield to maturity of that Premium Bond (or, in the case of a Premium Bond callable prior to its stated maturity, the amortization period and yield may be required to be determined on the basis of an earlier call date that results in the lowest yield on that Premium Bond), compounded semiannually (or over a shorter permitted compounding interval selected by the owner). No portion of that bond premium is deductible by the owner of a Premium Bond. For purposes of determining the owner’s gain or loss on the sale, redemption (including redemption at maturity) or other disposition of a Premium Bond, the owner’s tax basis in the Premium Bond is reduced by the amount of bond premium that accrues during the period of ownership. As a result, an owner may realize taxable gain for federal income tax purposes from the sale or other disposition of a Premium Bond for an amount equal

to or less than the amount paid by the owner for that Premium Bond. A purchaser of a Premium Bond in the initial public offering at the price for that Premium Bond stated on the inside cover of this Official Statement who holds that Premium Bond to maturity (or, in the case of a callable Premium Bond, to its earlier call date that results in the lowest yield on that Premium Bond) will realize no gain or loss upon the retirement of that Premium Bond.

Owners of Discount 2010 Bonds and Premium Bonds should consult their own tax advisers as to the determination for federal income tax purposes of the amount of OID or bond premium properly accruable in any period with respect to the Discount 2010 Bonds or Premium Bonds and as to other federal tax consequences and the treatment of OID and bond premium for purposes of state and local taxes on, or based on, income. Reference is made to the proposed form of the opinion of Co-Bond Counsel attached hereto as “APPENDIX D — Proposed Form of Co-Bond Counsel Opinion” for the complete text thereof. *See also* “CERTAIN LEGAL MATTERS” herein.

### **Information Reporting and Backup Withholding**

Interest paid on tax-exempt bonds such as the Series 2010 Bonds is subject to information reporting to the Internal Revenue Service in a manner similar to interest paid on taxable obligations. This reporting requirement does not affect the excludability of interest on the Series 2010 Bonds from gross income for federal income tax purposes. However, in conjunction with that information reporting requirement, the Code subjects certain non-corporate owners of Series 2010 Bonds, under certain circumstances, to “backup withholding” at (i) the fourth lowest rate of tax applicable under Section 1(c) of the Code (i.e., a rate applicable to unmarried individuals) for taxable years beginning on or before December 31, 2010; and (ii) the rate of 31% for taxable years beginning after December 31, 2010, with respect to payments on the Series 2010 Bonds and proceeds from the sale of Series 2010 Bonds. Any amount so withheld would be refunded or allowed as a credit against the federal income tax of such owner of Series 2010 Bonds. This withholding generally applies if the owner of Series 2010 Bonds (i) fails to furnish the payor such owner’s social security number or other taxpayer identification number (“TIN”), (ii) furnished the payor an incorrect TIN, (iii) fails to properly report interest, dividends, or other “reportable payments” as defined in the Code, or (iv) under certain circumstances, fails to provide the payor or such owner’s securities broker with a certified statement, signed under penalty of perjury, that the TIN provided is correct and that such owner is not subject to backup withholding. Prospective purchasers of the Series 2010 Bonds may also wish to consult with their tax advisors with respect to the need to furnish certain taxpayer information in order to avoid backup withholding.

### **RATINGS**

Fitch, Moody’s and S&P have assigned underlying ratings of “A-” (positive outlook), “A3” (stable outlook) and “A” (stable outlook), respectively, to the Series 2010 Bonds. Moody’s and S&P are expected to assign ratings of “Aa3” (negative outlook) and “AAA” (negative outlook), respectively, to the Series 2010 Bonds, except the Uninsured Series 2010 Bonds, with the understanding that the Policy will be issued by the Insurer upon the delivery of the Series 2010 Bonds. Such ratings reflect the views of such rating agencies and an explanation of the significance of such ratings may be obtained only from the rating agencies. There is no

assurance that such ratings will be in effect for any given period of time or that they will not be revised downward or withdrawn entirely by the rating agencies, if, in the judgment of the rating agencies, circumstances so warrant. Any such downward revision or withdrawal of such ratings may have an adverse effect upon the market price of the Series 2010 Bonds. See “BOND INSURANCE FOR CERTAIN SERIES 2010 BONDS” herein.

### **VERIFICATION OF MATHEMATICAL COMPUTATIONS**

The arithmetical accuracy of certain computations included in the schedules provided by the Underwriters on behalf of the Authority relating to the computation of the adequacy of the proceeds and other available moneys held under the 2004A Escrow Deposit Agreement and the 2000 Escrow Deposit Agreement to pay all principal of and interest and redemption premium, as applicable, on the Refunded Bonds through their redemption dates has been verified by Causey Demgen & Moore Inc. Such computations are based solely on information supplied by the Underwriters on behalf of the Authority.

### **DISCLOSURE PURSUANT TO SECTION 517.051, FLORIDA STATUTES**

Pursuant to Section 517.051, Florida Statutes, no person may directly or indirectly offer or sell securities of the Authority except by an offering circular containing full and fair disclosure of all defaults as to principal or interest on its obligations since December 31, 1975, as provided by rule of the Florida Department of Banking and Finance (the “Banking and Finance Department”). Pursuant to Rule 3E-400.003, Florida Administrative Code, the Banking and Finance Department has required the disclosure of the amounts and types of defaults, any legal proceedings resulting from such defaults, whether a trustee or receiver has been appointed over the assets of the Authority, and certain additional information, unless the Authority believes in good faith that such information would not be considered material by a reasonable investor. The Authority has not defaulted as to principal of and interest on any of its obligations.

### **UNDERWRITING**

The Underwriters have agreed, subject to certain conditions, to purchase the Series 2010 Bonds from the Authority at an original aggregate purchase price of \$409,859,136.79 (representing the original principal amount of \$412,710,000.00 less net original issue discount of \$783,212.25 and less Underwriters’ discount of \$2,067,650.96). The Underwriters’ obligations are subject to certain conditions precedent, and they will be obligated to purchase all of the Series 2010 Bonds if any Series 2010 Bonds are purchased. The Series 2010 Bonds may be offered and sold to certain dealers (including dealers depositing such Series 2010 Bonds into investment trusts, including investment trusts managed by the Underwriters) at prices lower than the public offering prices, and such public offering prices may be changed from time to time by the Underwriters.

Citigroup Inc. and Morgan Stanley, the respective parent companies of Citigroup Global Markets Inc. and Morgan Stanley & Co. Incorporated, each an Underwriter of the Series 2010 Bonds, have entered into a retail brokerage joint venture. As part of the joint venture each of Citigroup Global Markets Inc. and 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, each of Citigroup Global Markets Inc. and Morgan Stanley & Co. Incorporated will compensate Morgan Stanley Smith Barney LLC for its selling efforts in connection with their respective allocations of Series 2010 Bonds.

J.P.Morgan Securities Inc. (“JPMSI”), one of the Underwriters of the Series 2010 Bonds, has entered into negotiated dealer agreements (each, a “Dealer Agreement”) with each of UBS Financial Services Inc. (“UBSFS”) and Charles Schwab & Co., Inc. (“CS&Co.”) for the retail distribution of certain securities offerings, including the Series 2010 Bonds, at the original issue prices. Pursuant to each Dealer Agreement, each UBSFS and CS&Co. will purchase bonds from JPMSI at the original issue price less a negotiated portion of the selling concession applicable to any bonds that such firm sells.

## **PROFESSIONAL CONSULTANTS**

### **Financial Advisor**

First Southwest Company, Aventura, Florida is serving as Financial Advisor to the Authority with respect to the sale of the Series 2010 Bonds. The Financial Advisor assisted in matters relating to the planning, structuring and issuance of the Series 2010 Bonds and provided other advice. The Financial Advisor will not engage in any underwriting activities with regard to the issuance and sale of the Series 2010 Bonds. The fee payable to the Financial Advisor is contingent upon the issuance and delivery of the Series 2010 Bonds.

### **Accountants**

The Financial Statements of the Authority as of and for the years ended June 30, 2009 and 2008 included in Appendix D have been audited by TCBA Watson Rice LLP, independent auditors, as stated in their report appearing in Appendix D. Such financial statements have been included in reliance upon the report of TCBA Watson Rice LLP. TCBA Watson Rice LLP has not examined, compiled or applied agreed-upon procedures to the projected and/or forecasted data contained herein and, therefore, assumes no responsibility for such data.

### **General Engineering Consultant; Traffic Consultant**

The Authority has retained two firms to perform separate duties of the General Engineering Consultant. HNTB Corporation (“HNTB”) serves as the General Engineering Consultant for Program Management/Production, while EAC Consulting, Inc. (“EAC”) serves as the General Engineering Consultant for Construction Management. Wilbur Smith Associates serves as the Authority’s Traffic and Revenue Consultant. HNTB, EAC and Wilbur Smith Associates are each a Consulting Engineer for purposes of the Indenture.

## **FORWARD LOOKING STATEMENTS**

Certain statements included or incorporated by reference in this Official Statement constitute “forward-looking statements.” Such statements generally are identifiable by the terminology used, such as “plan,” “expect,” “estimate,” “budget” or other similar words. The achievement of certain results or other expectations contained in such forward-looking

statements involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements described to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Aside from its customary financial reporting activities, the Authority does not plan to issue any updates or revisions to those forward-looking statements if or when its expectations or events, conditions or circumstances on which such statements are based occur, subject to any contractual or legal responsibilities to the contrary.

### **MISCELLANEOUS**

This Official Statement is not to be construed as a contract with the purchasers of the Series 2010 Bonds. The information and expressions of opinion in this Official Statement are subject to change without notice and neither the delivery of this Official Statement nor any sale made shall under any circumstances create any implication that there has been no change in the matters referred to in this Official Statement since its date. The references, excerpts and summaries of all documents referred to herein do not purport to be complete statements of the provisions of such documents, and reference is directed to all such documents for full and complete statements of all matters of fact relating to the Series 2010 Bonds, the security for and the source of repayment for the Series 2010 Bonds and the rights and obligations of the holders thereof. Copies of such documents may be obtained from the Authority by writing or calling the Miami-Dade County Expressway Authority, 3790 N.W. 21st Street, Miami, Florida 33142, Telephone No. (305) 637-3277.

So far as any statements made in this Official Statement involve matters of opinion or of estimates, whether or not expressly stated, they are set forth as such and not as representations of fact. No representation is made that any of the opinions or estimates will be realized.

### **AUTHORIZATION OF OFFICIAL STATEMENT**

The delivery of this Official Statement has been duly authorized by the governing body of the Authority. At the time of delivery of the Series 2010 Bonds, the Chair of the Authority will furnish a certificate to the effect that nothing has come to his attention which would lead him to believe that the Official Statement, as of its date and as of the date of delivery of the Series 2010 Bonds, contains an untrue statement of a material fact or omits to state a material fact which should be included therein for the purposes for which the Official Statement is intended to be used, or which is necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

### **MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY**

By: /s/ Felix Lasarte

Chair

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## **APPENDIX A**

### **GENERAL INFORMATION RELATING TO MIAMI-DADE COUNTY, FLORIDA**

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## **GENERAL INFORMATION RELATING TO MIAMI-DADE COUNTY, FLORIDA**

Set forth below is certain general information concerning Miami-Dade County, Florida (the “County”).

### **History**

The County is the largest county in the southeastern United States in terms of population. The County currently covers 2,209 square miles, located in the southeastern corner of the State of Florida (the “State”), and includes, among other municipalities, the cities of Miami, Miami Beach, Coral Gables and Hialeah. In 2009, the population of the County was estimated at 2,532,000.

The County was created on January 18, 1836 under the Territorial Act of the United States. It included the land area now forming Palm Beach County and Broward County, together with the land area of the present County. In 1909, Palm Beach County was established from the northern portion of what was then Dade County. In 1915, Palm Beach County and the County contributed nearly equal portions of land to create what is now Broward County. There have been no significant boundary changes to the County since 1915.

### **Economy**

The County’s economy has transitioned from mixed service and industrial in the 1970s to a knowledge-based economy. The shift to knowledge-based sectors, such as life sciences, aviation, financial services and IT/Telecom has diversified the local economy. Other important sectors include international trade, health services and the tourism industry, which remains one of the largest sectors in the local economy. Wholesale and retail trades are strong economic forces in the local economy, as well and are projected to continue, which is reflective of the County’s position as a wholesale center in Southeast Florida, serving a large international market. The diversification of the economy creates a more stable economic base.

In an effort to further strengthen and diversify the County’s economic base, the County commissioned a private consulting firm in 1984 to identify goals and objectives for various public and private entities. The Beacon Council was established as a public-private partnership to promote these goals and objectives.

### **International Commerce**

The Greater Miami Area is the center for international commerce for the southeastern United States as well as Latin America and the Caribbean. Its proximity to the Caribbean, Mexico, Central America and South America makes it a natural center of commerce in the Americas. Approximately 1,200 multinational corporations are established in South Florida. In addition, the international background of many of its residents is an important labor force characteristic for multinational companies which operate across language and cultural differences.

Trade with Latin America, Europe and Caribbean countries has generated substantial growth in the number of financial institutions conducting business in the County. The large Spanish-speaking labor force and the County's proximity to Latin America have also contributed to the growth of the banking industry in the County. According to the Federal Reserve Bank of Atlanta, as of September 30, 2009 there were 14 Edge Act Banks throughout the United States; five of those institutions were located in the County with over \$11.6 billion on deposit. Edge Act Banks are federally chartered organizations offering a wide range of banking services, but limited to international transactions only. These banking institutions are: Bancafe International, Banco Itau Europa International, Banco Santander International, HSBC Private Bank International and Standard Chartered Bank International America.

The County had the highest concentration of international bank agencies on the east coast south of New York City, with a total of 23 foreign chartered banks and over \$8 billion on deposit as of September 30, 2009, according to the Florida Department of Financial Services, Office of Financial Regulations.

### **Corporate Expansion**

The favorable geographic location of the County, a well-trained labor force and the favorable transportation infrastructure have allowed the economic base of the County to expand by attracting and retaining many national and international firms doing business in Latin America, the Caribbean, the United States and the rest of the world. Among these corporations with world or national headquarters in the County are: Burger King, Carnival Cruise Lines, Royal Caribbean Cruises, and Lennar. Those corporations with Latin American regional headquarters include: Federal Express Corporation, Kraft Foods International, Porsche Latin America, Telefonica, and Caterpillar.

### **Industrial Development**

The role of the Miami-Dade County Industrial Development Authority (the "IDA") is the development and management of the tax-exempt industrial development revenue bond program, which serves as a financial incentive to support private sector business and industry expansion and location in the County. Programs developed are consistent with the IDA's legal status and compatible with the economic development goals established by the Board of County Commissioners and other economic development organizations operating in the County.

Between 1979 and the creation of the Beacon Council in 1986, the IDA provided expansion and location assistance to 195 private sector businesses, accounting for a capital investment of \$695 million and the creation of over 11,286 new jobs.

The IDA's principal program, the Tax-Exempt Industrial Development Revenue Bond Program, has generated 439 applications through October 2009. From 1986 to November 2009, bonds for 216 company projects have been issued in an aggregate principal amount in excess of \$1.5 billion. Approximately 9,409 new jobs have been generated by these projects. The IDA continues to manage approximately 54 outstanding Industrial Development Revenue Bond Issues, approximating \$802 million in capital investment.

### **Other Developmental Activities**

In October 1979, the Miami-Dade County Health Facilities Authority (the “Health Facilities Authority”) was formed to assist local not-for-profit health care corporations to acquire, construct, improve or refinance health care projects located in the County through the issuance of tax-exempt bonds or notes. As of November 2009, the Health Facilities Authority has issued 24 series of bonds totaling over \$1.9 billion.

In October 1969, the Board created the Miami-Dade County Educational Facilities Authority (the “EFA”) to assist institutions of higher learning within the County to have an additional means to finance facilities and structures needed to maintain and expand learning opportunities and intellectual development. As of November 2009, the EFA has issued 52 series of bonds totaling over \$1.7 billion.

In December 1978, the Housing Finance Authority of Miami-Dade County (Florida) (the “HFA”) was formed to issue bonds to provide the HFA with moneys to purchase mortgage loans secured by mortgages on single family residential real property owned by low and moderate income persons residing in the County. Since its inception, the HFA has generated \$1.18 billion in mortgage funds through the issuance of revenue bonds under the Single Family Mortgage Revenue Bond Program. As of November 2009, under the HFA’s Multi-Family Mortgage Revenue Bond Program, revenue bonds aggregating approximately \$917 million have been issued for new construction or rehabilitation of 16,752 units.

The bonds issued by the foregoing authorities and the IDA are not debts or obligations of the County or the State or any political subdivision thereof, but are payable solely from the revenues provided by the respective private activity borrower as security therefor.

### **Film Industry**

The County’s film and entertainment industry was challenged in 2009 with both a declining economy and lack of production incentive funding from the State contributing to a downturn in the sector. Major motion pictures were almost entirely non-existent during the year, due to the lack of incentive funding. Television was the bright spot in the County’s production economy at \$55 million through the first 10 months of 2009, with USA Networks’ “Burn Notice” filming its 13 episode third season entirely in South Florida, numerous reality series and the very active Spanish language television business contributing about \$20 million to the bottom line during such period. This represents a decrease of approximately 38% in estimated spending from the previous year. In all, more than 800 productions were filmed or shot on location in the County in 2009, spending an estimated \$90-\$100 million.

### **Surface Transportation**

The County owns and operates through its Transit Department a unified multi-modal public transportation system. Operating in a fully integrated configuration, the County’s Transit Department provides public transportation services through: (i) Metrorail - a 22.6-mile, 22-station elevated electric rail line connecting South Miami-Dade and the City of Hialeah with the Downtown and Civic Center areas, providing 18.5 million passenger trips annually; (ii) Metromover - a fully automated, driverless 4.4-mile elevated electric double-loop people-



mover system interfaced with Metrorail and completing approximately 8.8 million passenger trips annually throughout 21 stations in the central business district and south to the Brickell international banking area and north to the Omni area; and (iii) Metrobus, including both directly operated and contracted conventional urban bus service, operating over 29.2 million miles per year, interconnecting with all Metrorail stations and key Metromover stations, and providing over 115 million passenger trips annually.

The County also provides para-transit service to qualified elderly and handicapped riders through its Special Transportation Service, which supplies over 1.56 million passenger trips per year in a demand-response environment.

Additionally, the County's Transit Department is operating the Bus Rapid Transit ("BRT") on the South Miami-Dade Busway, a dedicated-use BRT corridor that runs parallel to US1/South Dixie Highway. Service commenced in 1997 and was extended from North Kendall Drive/SW 88<sup>th</sup> Street to SW 244<sup>th</sup> Street. A final segment was recently completed in December 2007. The South Miami-Dade Busway traverses over twenty miles, connecting Florida City (SW 344<sup>th</sup> Street) with the Metrorail system, with connection to downtown Miami.

### **Airport**

The County owns and operates the Miami International Airport (the "Airport"), the principal commercial airport serving Southeast Florida. The Airport also has the third highest international passenger traffic in the U.S. During Fiscal Year 2009, the Airport handled 33,875,470 passengers and 1,699,219 tons of air freight. The Airport is classified by the Federal Aviation Administration as a large hub airport, the highest classification given by that organization. The Airport is also one of the principal maintenance and overhaul bases, as well as a principal training center, for the airline industry in the United States, Central and South America, and the Caribbean.

A five year summary of the passengers served and cargo handled by the Airport is shown below:

#### **Passengers and Cargo Handled by Miami International Airport 2005-2009**

| <u>Fiscal Year</u> | <u>Passengers<br/>(in thousands)</u> | <u>Cargo<br/>(in millions)</u> | <u>Total Landed<br/>Weight<br/>(million lbs.)</u> |
|--------------------|--------------------------------------|--------------------------------|---------------------------------------------------|
| 2005               | 30,912                               | 1.96                           | 31,148                                            |
| 2006               | 32,094                               | 1.97                           | 30,735                                            |
| 2007               | 33,278                               | 2.10                           | 31,420                                            |
| 2008               | 34,066                               | 2.08                           | 31,590                                            |
| 2009               | 33,875                               | 1.70                           | 30,172                                            |

Source: Miami-Dade County Aviation Department

## **Seaport**

The Dante B. Fascell Port of Miami (the “Port”) is an island port, which covers 640 acres of land, operated by the Seaport Department. It is the world’s largest multi-day cruise port. Embarkations and debarkations on cruise ships totaled over 4.1 million passengers for Fiscal Year 2009. With the increase in activity from the Far-East markets and South and Central America, cargo tonnage transiting the Port amounted to over 6.8 million tons for Fiscal Year 2009.

The following table sets forth a five-year summary of both cruise passengers served and cargo handled:

### **Passengers and Cargo Handled by Port 2005-2009**

| <u>Fiscal Year</u> | <u>Cruise Passengers<br/>(in thousands)</u> | <u>Cargo Tonnage<br/>(in millions)</u> |
|--------------------|---------------------------------------------|----------------------------------------|
| 2005               | 3,605                                       | 9.47                                   |
| 2006               | 3,731                                       | 8.65                                   |
| 2007               | 3,787                                       | 7.83                                   |
| 2008               | 4,137                                       | 7.42                                   |
| 2009               | 4,110                                       | 6.83                                   |

Source: Miami-Dade County Seaport Department

## **Tourism**

The Greater Miami Area is a leading center for tourism in the State. Miami was a primary destination for domestic air travelers after Orlando according to the Florida Division of Tourism. It is also the principal port of entry in the State for international air travelers. During 2008, approximately 81% of international air travelers (excluding travelers from Canada) entering the State arrived through the Airport. The Airport has the third highest international passenger traffic behind New York’s John F. Kennedy International Airport and the Los Angeles International Airport.

An estimated 11.9 million visitors spent at least one night in Greater Miami and the Beaches in 2009. Due to the economy’s impact on travel, Miami visitors were down -1.6% in 2009 compared to 2008. Domestic visitors accounted for 52% of all overnight visitors and were down -1.4 compared to the previous year. International visitors were down -1.8% in 2009 compared to 2008 and made up 48% of all overnight visitors

While the majority of international visitors to Greater Miami Beach and the Beaches continue to originate from Latin America, visitors originating from Europe accounted for 1.2 million in 2009 a decline from 1.4 in 2008. Visitors from Canada and Japan were also accounted for in 2009, with 537,000 visitors in total.

The following is a five-year summary of domestic and international visitors, including a further breakdown of international visitors by region of origin, and the estimated economic impact produced by those visitors:

**Tourism Statistics  
2005-2009**

|      | Visitors<br>(in thousands) |              |              | Estimated Economic Impact<br>(in millions) |              |              |
|------|----------------------------|--------------|--------------|--------------------------------------------|--------------|--------------|
|      | <u>Domestic</u>            | <u>Int'l</u> | <u>Total</u> | <u>Domestic</u>                            | <u>Int'l</u> | <u>Total</u> |
| 2005 | 6,029                      | 5,273        | 11,302       | \$ 6,883                                   | \$ 6,875     | \$ 12,457    |
| 2006 | 6,263                      | 5,322        | 11,585       | 7,688                                      | 9,108        | 16,796       |
| 2007 | 6,473                      | 5,493        | 11,966       | 7,146                                      | 10,759       | 17,905       |
| 2008 | 6,341                      | 5,787        | 12,128       | 6,557                                      | 10,745       | 17,302       |
| 2009 | 6,251                      | 5,684        | 11,935       | 5,954                                      | 11,156       | 17,110       |

Source: Greater Miami Convention and Visitors Bureau

**International Visitors by Region  
2005-2009  
(in thousands)**

|      | <u>European</u> | <u>Caribbean</u> | <u>Latin<br/>American</u> | <u>Canada<br/>Japan/Other</u> | <u>Total</u> |
|------|-----------------|------------------|---------------------------|-------------------------------|--------------|
| 2005 | 1,213           | 686              | 2,673                     | 701                           | 5,273        |
| 2006 | 1,224           | 665              | 2,778                     | 655                           | 5,322        |
| 2007 | 1,294           | 683              | 2,835                     | 680                           | 5,492        |
| 2008 | 1,361           | 702              | 3,020                     | 704                           | 5,787        |
| 2009 | 1,279           | 682              | 3,067                     | 656                           | 5,684        |

Source: Greater Miami Convention and Visitors Bureau

## **Employment**

The following table illustrates the economic diversity of the County's employment base. No single industry clearly dominates the County's employment market, and there have not been any significant decreases within the industry classifications displayed for the latest years for which information is available.

### **Estimated Employment In Non-Agricultural Establishments 2007-2009**

|                                              | <b>September<br/>2007</b> | <b>Percent</b> | <b>September<br/>2008</b> | <b>Percent</b> | <b>September<br/>2009</b> | <b>Percent</b> |
|----------------------------------------------|---------------------------|----------------|---------------------------|----------------|---------------------------|----------------|
| <b>Goods Producing Sector</b>                |                           |                |                           |                |                           |                |
| Construction                                 | 56,200                    | 5.3            | 45,800                    | 4.4            | 39,100                    | 3.9            |
| Manufacturing                                | 47,300                    | 4.4            | 44,400                    | 4.3            | 41,400                    | 4.1            |
| Mining & Natural Resources                   | 600                       | 0.1            | 500                       | 0.0            | 400                       | 0.0            |
| <b>Total Goods Producing Sector</b>          | <b>104,100</b>            | <b>9.8</b>     | <b>90,700</b>             | <b>8.7</b>     | <b>80,900</b>             | <b>8.0</b>     |
| <b>Service Providing Sector</b>              |                           |                |                           |                |                           |                |
| Transportation, Warehousing<br>and Utilities | 61,400                    | 5.8            | 60,300                    | 5.8            | 59,000                    | 5.8            |
| Wholesale Trade                              | 75,600                    | 7.1            | 73,800                    | 7.2            | 74,100                    | 7.3            |
| Retail Trade                                 | 128,500                   | 12.1           | 125,700                   | 12.1           | 120,300                   | 11.9           |
| Information                                  | 20,800                    | 2.0            | 19,600                    | 1.9            | 18,600                    | 1.9            |
| Financial Activities                         | 74,800                    | 7.0            | 72,600                    | 7.0            | 70,800                    | 7.0            |
| Professional and Business Services           | 145,500                   | 13.6           | 139,500                   | 13.4           | 134,900                   | 13.4           |
| Education and Health Services                | 150,900                   | 14.2           | 155,400                   | 15.0           | 156,000                   | 15.4           |
| Leisure and Hospitality                      | 103,700                   | 9.7            | 102,000                   | 9.8            | 101,100                   | 10.0           |
| Other Services                               | 41,800                    | 3.9            | 43,700                    | 4.2            | 42,700                    | 4.3            |
| Government                                   | 157,500                   | 14.8           | 155,000                   | 14.9           | 151,800                   | 15.0           |
| <b>Total Service Providing Sector</b>        | <b>960,500</b>            | <b>90.2</b>    | <b>947,600</b>            | <b>91.3</b>    | <b>929,300</b>            | <b>92.0</b>    |
| <b>Total Non-Agricultural Employment</b>     | <b>1,064,600</b>          | <b>100%</b>    | <b>1,038,300</b>          | <b>100%</b>    | <b>1,010,200</b>          | <b>100%</b>    |

Sources: Florida Agency for Workplace Innovation, Labor Market Statistics, Current Employment Statistics Program (in cooperation with U.S. Department of Labor, Bureau of Labor Statistics).  
Miami-Dade County, Department of Planning and Zoning, Research Section, November 2009.

## County Demographics

### **Estimates of Population by Age Miami-Dade County 2000 to 2030**

| <b>Age Group</b> | <b>2000</b> | <b>2005</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> |
|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Under 16         | 495,375     | 522,784     | 537,561     | 572,850     | 593,548     | 630,244     | 654,791     |
| 16-64            | 1,457,435   | 1,558,892   | 1,683,790   | 1,776,675   | 1,877,694   | 1,947,052   | 2,023,662   |
| 65 & Over        | 300,552     | 321,796     | 342,534     | 375,098     | 414,197     | 468,786     | 527,834     |
| Total            | 2,253,362   | 2,403,472   | 2,563,885   | 2,724,623   | 2,885,439   | 3,046,082   | 3,206,287   |

Sources: U.S. Census Bureau, Decennial Census Report for 2000. Projections provided by Miami-Dade County, Department of Planning and Zoning, Research Section, November 2009.

### **Trends and Forecasts, Population in Incorporated and Unincorporated Areas 1960 – 2015**

| <b>Year</b>              | <b>Population in<br/>Incorporated<br/>Areas</b> | <b>Population in<br/>Unincorporated<br/>Areas</b> | <b>Total</b> | <b>Percentage<br/>Growth in<br/>Population</b> |
|--------------------------|-------------------------------------------------|---------------------------------------------------|--------------|------------------------------------------------|
| <b><u>Trends:</u></b>    |                                                 |                                                   |              |                                                |
| 1960                     | 582,713                                         | 352,334                                           | 935,047      | N/A                                            |
| 1970                     | 730,425                                         | 537,367                                           | 1,267,792    | 36.5%                                          |
| 1980                     | 829,881                                         | 795,900                                           | 1,625,781    | 28.2                                           |
| 1990                     | 909,371                                         | 1,027,723                                         | 1,937,094    | 19.1                                           |
| 1995                     | 973,912                                         | 1,110,293                                         | 2,084,205    | 7.6                                            |
| 2000                     | 1,049,074                                       | 1,204,288                                         | 2,253,362    | 8.1                                            |
| 2001                     | 1,087,033                                       | 1,202,189                                         | 2,289,222    | 1.6                                            |
| 2002                     | 1,095,529                                       | 1,221,147                                         | 2,316,676    | 1.2                                            |
| 2003                     | 1,127,234                                       | 1,216,799                                         | 2,344,033    | 1.2                                            |
| 2004                     | 1,271,676                                       | 1,099,261                                         | 2,370,937    | 1.1                                            |
| 2005                     | 1,298,454                                       | 1,105,018                                         | 2,403,472    | 1.4                                            |
| 2006                     | 1,350,926                                       | 1,084,591                                         | 2,435,517    | 1.3                                            |
| 2007                     | 1,372,281                                       | 1,095,302                                         | 2,467,583    | 1.3                                            |
| 2008                     | 1,398,177                                       | 1,101,490                                         | 2,499,667    | 1.3                                            |
| 2009                     | 1,418,558                                       | 1,113,211                                         | 2,531,769    | 1.2                                            |
| <b><u>Forecasts:</u></b> |                                                 |                                                   |              |                                                |
| 2010                     | 1,417,608                                       | 1,146,277                                         | 2,563,885    | 2.6                                            |
| 2015                     | 1,506,519                                       | 1,218,104                                         | 2,724,623    | 6.3                                            |

Sources: U.S. Census Bureau, Decennial Census Report for 1960-2000. Projections provided by Miami-Dade County, Department of Planning and Zoning, Research Section, November 2009.

**Population By Race and Ethnic Group<sup>(1)</sup>**  
**Miami-Dade County**  
**1970 - 2020**  
(in thousands)

| <u><b>Year</b></u>  | <u><b>Total<sup>(2)</sup></b></u> | <u><b>Hispanic<sup>(1)</sup></b></u> | <u><b>Blacks<sup>(1)</sup></b></u> | <u><b>Non-Hispanic<br/>Whites and<br/>Others</b></u> |
|---------------------|-----------------------------------|--------------------------------------|------------------------------------|------------------------------------------------------|
| 1970                | 1,268                             | 299                                  | 190                                | 782                                                  |
| 1975                | 1,462                             | 467                                  | 237                                | 765                                                  |
| 1980                | 1,626                             | 581                                  | 284                                | 773                                                  |
| 1985                | 1,771                             | 768                                  | 367                                | 656                                                  |
| 1990                | 1,967                             | 968                                  | 409                                | 618                                                  |
| 1995                | 2,084                             | 1,155                                | 446                                | 519                                                  |
| 2000                | 2,253                             | 1,292                                | 457                                | 534                                                  |
| 2005                | 2,402                             | 1,455                                | 461                                | 497                                                  |
| 2010 <sup>(3)</sup> | 2,551                             | 1,621                                | 526                                | 442                                                  |
| 2015 <sup>(3)</sup> | 2,703                             | 1,794                                | 554                                | 395                                                  |
| 2020 <sup>(3)</sup> | 2,858                             | 1,972                                | 583                                | 347                                                  |
| (In Percentages)    |                                   |                                      |                                    |                                                      |
| 1970 <sup>(2)</sup> | 100%                              | 24%                                  | 15%                                | 62%                                                  |
| 1975 <sup>(2)</sup> | 100                               | 32                                   | 16                                 | 52                                                   |
| 1980 <sup>(2)</sup> | 100                               | 36                                   | 17                                 | 48                                                   |
| 1985 <sup>(2)</sup> | 100                               | 43                                   | 21                                 | 37                                                   |
| 1990 <sup>(2)</sup> | 100                               | 49                                   | 21                                 | 31                                                   |
| 1995 <sup>(2)</sup> | 100                               | 55                                   | 21                                 | 25                                                   |
| 2000 <sup>(2)</sup> | 100                               | 57                                   | 20                                 | 24                                                   |
| 2005 <sup>(2)</sup> | 100                               | 61                                   | 21                                 | 20                                                   |
| 2010 <sup>(3)</sup> | 100                               | 64                                   | 21                                 | 17                                                   |
| 2015 <sup>(3)</sup> | 100                               | 66                                   | 21                                 | 15                                                   |
| 2020 <sup>(3)</sup> | 100                               | 69                                   | 20                                 | 12                                                   |

Sources: U.S. Census Bureau, Census of Population Reports for 1970-2000. Projections provided by Miami-Dade County, Department of Planning and Zoning, Research Section, November 2009.

Notes:

- (1) Persons of Hispanic origin may be of any race. Hispanic Blacks are counted as both Hispanic and Black. Other Non-Hispanics are grouped with Non-Hispanic White category. Sum of components exceeds total.
- (2) Numbers may not add due to rounding.
- (3) Projections.

The following tables set forth the leading public and private County employers:

### **Fifteen Largest Public Employers**

| <b><u>Employers' Name</u></b>          | <b><u>Number of Employees</u></b> |
|----------------------------------------|-----------------------------------|
| Miami-Dade County Public Schools ..... | 38,819                            |
| Miami-Dade County .....                | 29,000                            |
| U.S. Federal Government .....          | 19,900                            |
| Florida State Government .....         | 16,100                            |
| Jackson Health System .....            | 12,468                            |
| Florida International University ..... | 8,000                             |
| Miami-Dade Community College .....     | 5,798                             |
| City of Miami .....                    | 4,400                             |
| VA Healthcare System .....             | 2,385                             |
| Homestead Air Reserve Base .....       | 2,056                             |
| City of Hialeah .....                  | 2,000                             |
| City of Miami Beach .....              | 1,900                             |
| U.S. Southern Command .....            | 1,600                             |
| City of Coral Gables .....             | 828                               |
| City of North Miami Beach .....        | 689                               |

### **Fifteen Largest Private Employers**

| <b><u>Employers' Name</u></b>                         | <b><u>Number of Employees</u></b> |
|-------------------------------------------------------|-----------------------------------|
| University of Miami .....                             | 12,000                            |
| Baptist Health Systems of South Florida .....         | 12,000                            |
| Publix Super Markets .....                            | 11,625                            |
| American Airlines .....                               | 9,000                             |
| University of Miami Health .....                      | 7,025                             |
| United Parcel Service .....                           | 4,982                             |
| BellSouth/AT&T. ....                                  | 4,100                             |
| Florida Power & Light Company .....                   | 3,840                             |
| Winn Dixie Stores .....                               | 3,500                             |
| Carnival Cruise Lines .....                           | 3,500                             |
| Mount Sinai Medical Center .....                      | 3,391                             |
| Royal Caribbean International/Celebrity Cruises ..... | 3,330                             |
| University of Miami Hospital .....                    | 2,975                             |
| Miami Children's Hospital .....                       | 2,900                             |
| Sedano's Supermarkets. ....                           | 2,500                             |

Source: The Beacon Council/Miami-Dade County, Florida,  
*Miami Business Profile & Relocation Guide, January 2010*

The following table sets forth the unemployment rates within the County and comparative rates for the United States and the State:

**Unemployment Rates  
2005-2009**

| <b><u>Area</u></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> |
|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| USA                | 5.1%               | 4.6%               | 4.6%               | 5.8%               | 9.7%                |
| Florida            | 3.8                | 3.4                | 4.1                | 6.2                | 11.6                |
| Miami-Dade County  | 4.6                | 4.1                | 4.4                | 5.8                | 11.3                |

Sources: Florida Agency for Workplace Innovation, Office of Workforce Information Services, Labor Market Statistics and Miami-Dade County, Department of Planning and Zoning, Research Section, December 2009.

\*12 month average thru December.

The following table sets forth the per capita personal income within the County and comparative per capita personal income for the United States, the Southeastern region and the State:

**Per Capita Personal Income  
2003 - 2007**

| <b><u>Year</u></b> | <b><u>USA</u></b> | <b><u>Southeastern</u></b> | <b><u>Florida</u></b> | <b><u>Miami-Dade</u></b> |
|--------------------|-------------------|----------------------------|-----------------------|--------------------------|
| 2003               | \$ 31,530         | \$ 28,380                  | \$ 30,369             | \$ 27,908                |
| 2004               | 33,157            | 29,970                     | 32,672                | 29,830                   |
| 2005               | 34,690            | 31,324                     | 34,709                | 31,863                   |
| 2006               | 36,794            | 33,457                     | 37,099                | 34,708                   |
| 2007               | 38,615            | 34,859                     | 38,417                | 36,081                   |

\*Note that this table contains the most current information available as of the date of this Official Statement.

Sources: U.S. Department of Commerce, Economic and Statistical Administration Bureau of Economic Analysis/Regional Economic Information System; Miami-Dade County Department of Planning and Zoning, Research Section, November 2009.



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## **APPENDIX B**

### **REPORT OF GENERAL ENGINEERING CONSULTANT (HNTB)**

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# Miami-Dade Expressway Authority

## Fiscal Year 2011-2015 Consulting Engineer's Report

July 16, 2010

**HNTB**

General Engineering Consultants to the  
Miami-Dade Expressway Authority



MIAMI-DADE EXPRESSWAY AUTHORITY

HNTB Corporation  
Engineers Architects Planners

8700 West Flagler Street  
Suite 200  
Miami, Florida 33174

Telephone (305) 551-8100  
Facsimile (305) 551-2800  
www.hntb.com

July 16, 2010

Ms. Marie Schafer  
Director of Finance /CFO  
Miami-Dade Expressway Authority  
3790 NW 21<sup>st</sup> Street  
Miami, Florida 33142

**HNTB**

General Consultants to the  
Miami-Dade Expressway Authority

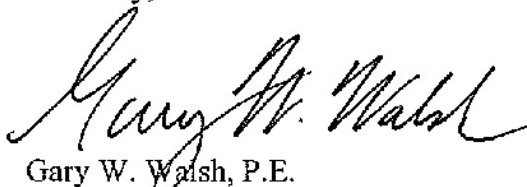
Re: Consulting Engineer's Report for Series 2010 Bonds  
MDX Contract No. RFP-10-03 GEC A  
HNTB Project No. 49924

Dear Ms. Schafer,

We are pleased to provide herewith our Consulting Engineer's Report for the MDX Series 2010 Bonds. This report summarizes the physical condition of the existing System, and describes and reports on the status of MDX's Capital Improvement and Transportation Improvement Projects, specifically those projects in the current FY 2011-2015 Five-Year Work Program. This report also includes Operations and Maintenance Projections, as well as Renewal and Replacement Projections for the MDX System.

It has been a pleasure assisting you in the preparation of documentation for this financing.

Sincerely,



Gary W. Walsh, P.E.  
GEC Deputy Program Director

Cc: Alfred Lurigados, P.E., MDX  
Mary H. Conway, P.E., HNTB  
Sandra Herdocia, HNTB

**CONSULTING ENGINEER'S REPORT  
FISCAL YEAR 2011 – 2015 PROJECTS**

**July 16, 2010**

Prepared for

**MIAMI-DADE  
EXPRESSWAY AUTHORITY  
MDX**

Prepared by

**HNTB Corporation**

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## **INTRODUCTION AND PURPOSE**

The purpose of this document is to provide a report from the General Engineering Consultant on (i) the physical condition of the existing Miami-Dade County Expressway Authority (MDX) System, (ii) ongoing projects within the Transportation Improvement, Capital Improvement and Renewal and Replacement(R&R) Programs, and (iii) specifically those projects included in the adopted MDX Five-Year Work Program, which covers Fiscal Years (FY) 2011–2015 (the “Five-Year Work Program”) to be partially paid from the proceeds of the Toll System Revenue Bonds, the “Series 2010 Bonds”.

This report also documents the estimated costs associated with the projects included within the adopted MDX Five-Year Work Program and provides commentary on other ongoing MDX developments relative to its operations and maintenance activities. The cost for the Five-Year Work Program is \$494.1 million.

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## **Section 1**

### **1. MIAMI-DADE EXPRESSWAY AUTHORITY**

#### **1.1 EXPRESSWAY AUTHORITY MISSION AND GOVERNANCE**

In 1994, the Florida Legislature amended Florida Statutes, Chapter 348, Part 1, enabling the creation of the MDX. On December 13, 1994, through Ordinance 94-215, the Board of County Commissioners (“County Commission”) of Miami-Dade County, Florida created MDX. The intent behind the formation of MDX was to establish a responsive additional funding source to address transportation needs in Miami-Dade County (the “County”). The MDX Governing Board (the “Board”) has formally adopted the following mission and vision statements:

##### **Mission Statement**

*“It is the mission of the Miami-Dade Expressway Authority to be an innovative transportation agency dedicated to the enhancement of mobility in Miami-Dade County.”*

##### **Vision Statement**

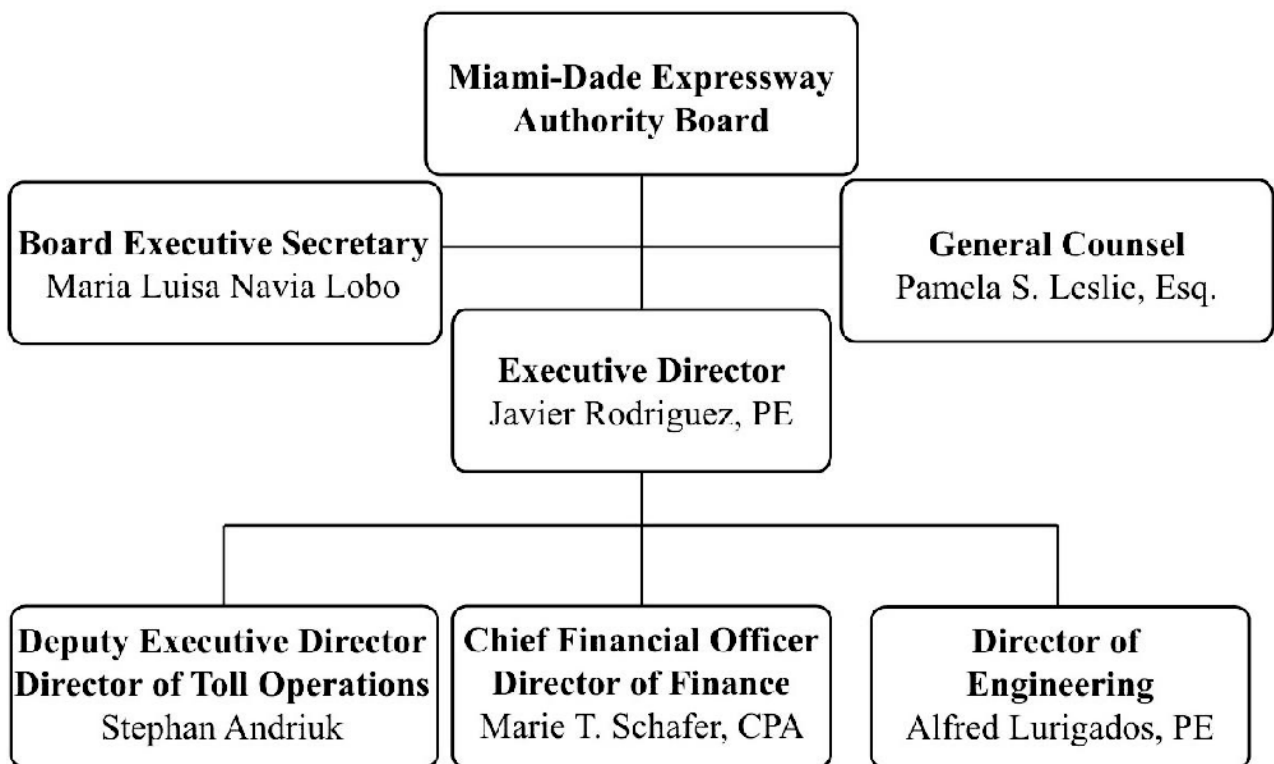
*“The MDX transportation system (System) will provide safe, affordable choices for the movement of people and goods in Miami-Dade County. The System will support and sustain economic opportunities in the South Florida region. It will be equitably tolled, well maintained, reliable, multimodal and aesthetically pleasing while also being environmentally sensitive. This System will be planned, delivered and operated in cooperation with MDX’s partners in the public and private sectors.”*

MDX is governed by a thirteen-member volunteer Board consisting of business and civic leaders. Florida’s Governor appoints five members of the Board, while the County Commission appoints seven. The thirteenth member, the Florida Department of Transportation District Six Secretary, serves as an ex-officio member. Board members serve four-year terms without compensation. The Board provides overall policy direction for MDX activities.

## 1.2 STAFFING

MDX operates under a management philosophy that provides for a qualified administrative staff of limited size, with reliance on contracted consultant assistance for specific tasks. Key management positions currently retained by MDX include the following: Executive Director, Board Executive Secretary, General Counsel, Director of Finance/Chief Financial Officer, Director of Toll Operations/Deputy Executive Director, and Director of Engineering. The current staff organization is shown in Figure 1-1. MDX currently has a total staff of 49.

**Figure 1-1**  
**MDX STAFF ORGANIZATION**



**MDX Total Staff = 49**

The Executive Director reports to the Board on expressway planning, engineering, construction, financing and operating activities. The Executive Director in turn, provides guidance and direction to MDX functional area directors and managers. The Board provides overall policy direction to the Executive Director for implementation of MDX activities. Javier Rodriguez, P.E. has served as Executive Director of MDX since March 2007.

In March 2010, MDX reselected HNTB Corporation (HNTB) as their GEC A Work Program/Production General Engineering Consultant (GEC). EAC Consulting, Inc. (EAC) is currently the MDX GEC B Construction Management General Engineering Consultant, who was responsible for the MDX 2009 Annual Inspection and Report, which forms the basis for a portion of this report. MDX is currently going through a Procurement Process for GEC B, which is expected to be complete by the beginning of FY 2011. MDX management staff is supported by multi-disciplined consulting firms, all of which have extensive experience in their respective fields.

Table 1-1 details the key supporting firms under contract to MDX.

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**Table 1-1**  
**MDX CONSULTANTS**

| <b>Area of Expertise</b>                                           | <b>Firm Type</b> | <b>Participants</b>                                      |
|--------------------------------------------------------------------|------------------|----------------------------------------------------------|
| Bond Counsel                                                       | Joint Venture    | Greenberg Traurig, P.A.<br>Edwards & Associates, P.A.    |
| General Engineering<br>Consultant A – Work<br>Program / Production | Prime Consultant | HNTB Corporation                                         |
| General Engineering<br>Consultant B – Construction<br>Management   | Prime Consultant | EAC Consulting, Inc.                                     |
| Financial Advisor                                                  | Prime Consultant | First Southwest Company                                  |
| External Independent Auditor                                       | Prime Consultant | TCBAWatson Rice LLP                                      |
| Traffic and Revenue<br>Consultant                                  | Prime Consultant | Wilbur Smith Associates                                  |
| Roadway Maintenance                                                | Prime Contractor | Virginia Maintenance Systems,<br>Inc. (VMS)              |
| Toll Enforcement Center<br>Operations <sup>1</sup>                 | Prime Contractor | Faneuil II, Inc.                                         |
| Toll Operations <sup>2</sup>                                       | Prime Contractor | Faneuil Toll Operations, LLC                             |
| Toll System Software<br>Maintenance <sup>2</sup>                   | Prime Contractor | United Toll Systems, LLC (UTS)                           |
| ORT Toll Operations and<br>Software Maintenance <sup>1,2</sup>     | Prime Contractor | Electronic Transaction<br>Consultants Corporation (ETCC) |

In addition to the firms indicated in Table 1-1, MDX is supported by a number of additional firms in various areas such as design, construction engineering and inspection, materials testing, structures inspections, financial services, advertising, legislative advocacy, operations, and construction.

### **1.3 TRANSFER AGREEMENT**

In December 1996, the Florida Department of Transportation (“FDOT”) transferred operational and financial control of five expressway facilities in the County to MDX,

---

<sup>1</sup> MDX is currently in the process of transitioning from Faneuil II, Inc. to ETCC. The transition is currently anticipated to be complete by June 2010

<sup>2</sup>MDX is currently in the process of transitioning from Faneuil Toll Operations, LLC and UTS to ETCC. The transition is currently anticipated to be complete by FY 2015

including the toll collection facilities. These five facilities make up the existing MDX System. MDX is fully responsible for operation and maintenance of the System, as described in Section 2 hereof.

#### **1.4 MDX LONG RANGE MASTER TRANSPORTATION PLAN**

The current MDX Long Range Master Transportation Plan ("Master Transportation Plan"), covers transportation needs and includes projects through FY 2035. This Master Transportation Plan is updated every three to five years; the most recent update was just completed in December of 2009. Six major system expansion projects and three major managed lanes projects are included in the 2035 Long Range Master Transportation Plan.

##### **Major System Expansion Projects**

- State Road (SR) 836 Southwest Extension.
- SR 874 Ramp Connector.
- SR 924 Extension West to the Homestead Extension of Florida's Turnpike (HEFT).
- SR 924 Extension East to I-95.
- Connect 4 Xpress
- US 27 – New Limited Access facility (SR 826 to Krome Av.).

##### **Major Managed Lanes Projects**

- Airport – Seaport Managed Lanes.
- US 1 Managed Lanes (Florida City to Dadeland South).
- US 1 Managed Lanes (Dadeland South to I-95).

The MDX focus on projects to be implemented in the next several years that are part of the Master Transportation Plan is contained in the adopted Five-Year Work Program which sets forth the status of all projects. A more detailed discussion of these projects is included in Section 3.

#### **1.5 THE FIVE-YEAR WORK PROGRAM**

The Five-Year Work Program is intended to be a dynamic document that reflects and prioritizes the needs of MDX. As such, changes are made on an annual basis as priorities

are re-evaluated, projects are completed, new projects are identified and the financial capabilities of MDX evolve.

The Five-Year Work Program is an important tool used by MDX to effectively manage its program of System expansions, improvements, renewals and replacements. It identifies projects that MDX anticipates funding during the next five Fiscal Years, from project inception through construction. The current Five-Year Work Program includes fifty-five (55) projects, including 3 New Expressway projects that provide benefits and/or additional mobility to the existing System, with a combined total estimated cost of approximately \$494.1 million.

The Five-Year Work Program consists of three aspects of infrastructure construction:

- Five-Year Transportation Improvement Program – Improvements and expansions to the MDX highway system, including planning projects, new expressways and implementation of Intelligent Transportation Systems (ITS) and toll collection systems.
- Five-Year Renewal and Replacement (R&R) Program – Paying the cost of unusual or extraordinary maintenance or repairs, maintenance or repairs not recurring annually and renewals and replacements; repairs or replacements resulting from an emergency caused by some extraordinary occurrence; and all or any part of any System improvement.
- Five-Year Capital Improvement Program – Capital improvements to other MDX assets other than highway facilities and system-wide roadway improvement projects.

The Five-Year Work Program projects are identified and tracked through a control system to monitor funding and project levels, budgets, schedules, cash flows, and funding sources. Funding strategies are based on financial analyses performed during the Five-Year Work Program development process, which includes an annual analysis of availability of funds, monthly project schedules, projected cash draw down requirements updated quarterly, and

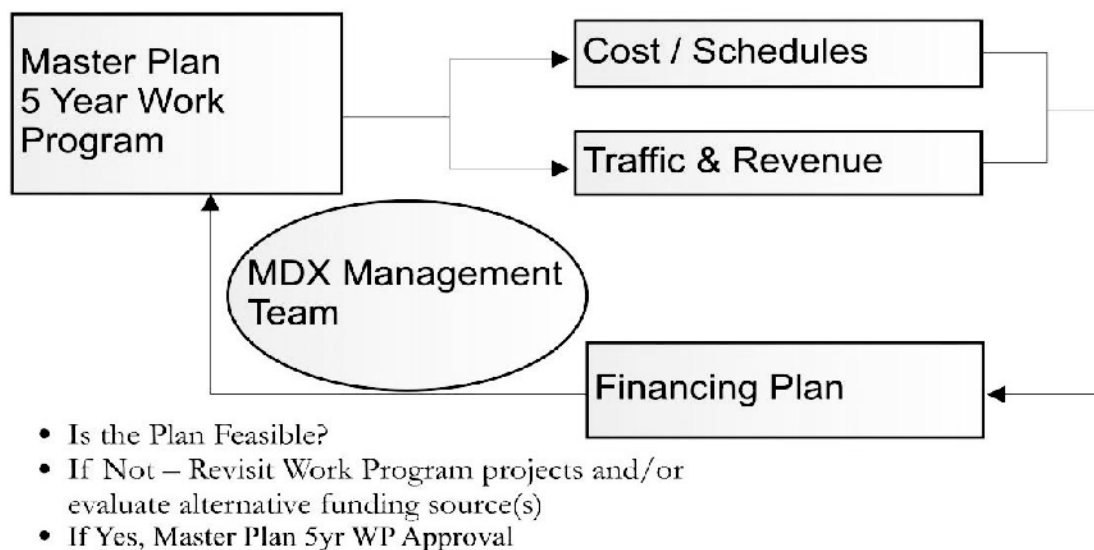
ultimately, financial feasibility. Figure 1-2 illustrates the process used by MDX to update its Five-Year Work Program.

The Five-Year Work Program for FY 2011-2015 was approved and adopted by the MDX Board in February 2010 and submitted to the Miami-Dade County Metropolitan Planning Organization (MPO).

It should be noted that only Transportation Improvement Program and Capital Improvement Program projects contained in the Board approved MDX Five-Year Work Program are eligible for funding from the Series 2010 Bonds. Projects contained in the Renewal and Replacement Program are funded out of Operations.

The current Five-Year Work Program is described in greater detail in Section 3.

**Figure 1-2**  
**FIVE-YEAR WORK PROGRAM PROCESS**



## **Section 2**

### **2. THE EXPRESSWAY SYSTEM**

#### **2.1 OVERVIEW OF THE MDX SYSTEM**

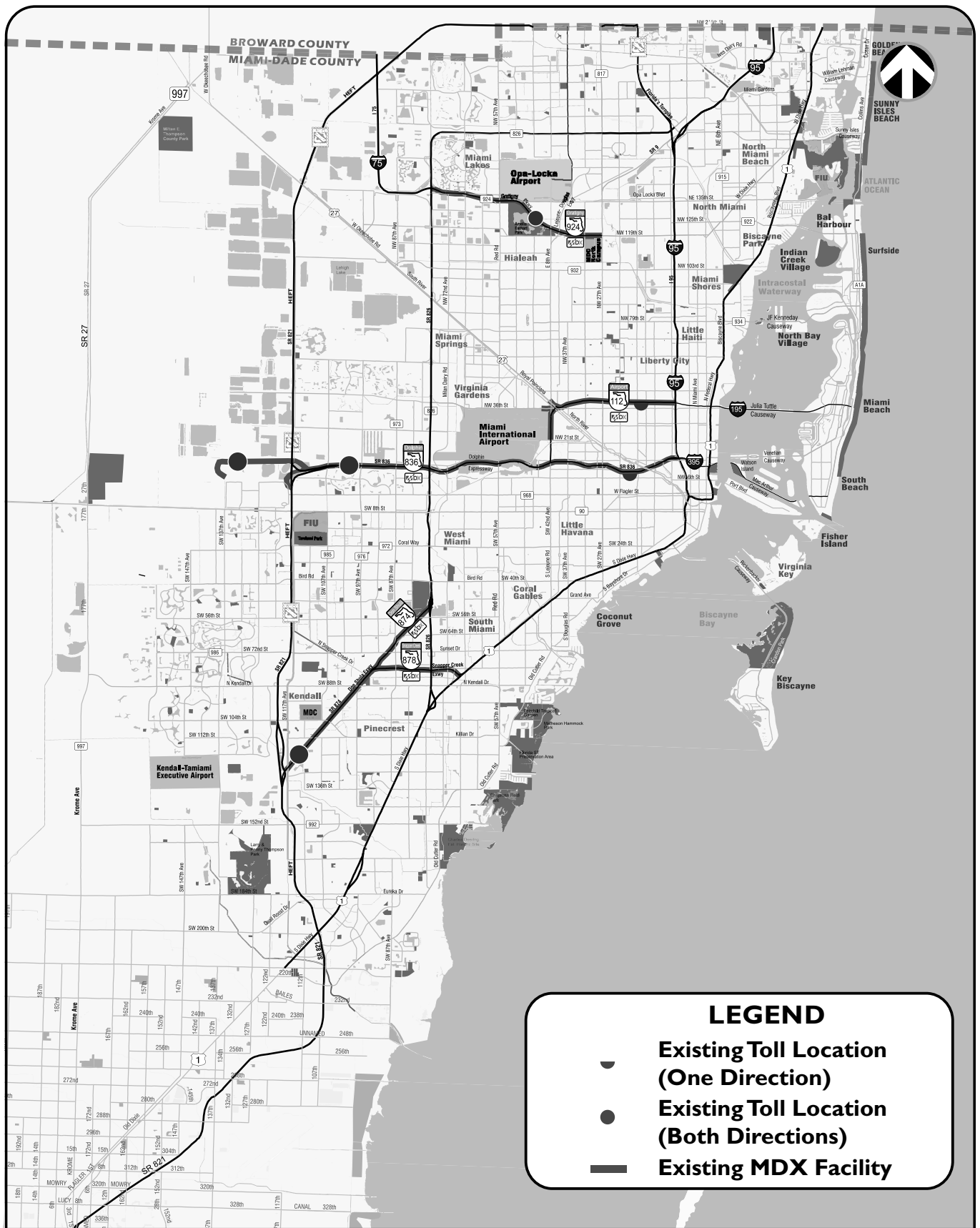
The existing MDX System, shown in Figure 2-1, consists of the five primary roadways noted below. The existing System contains 33.6 centerline miles of highway, 221.1 lane-miles, 5 mainline Toll plazas, two electronic Toll collection gantry sites and one ramp plaza, an administrative headquarters facility, 127 bridges and various other structures along the following expressways (collectively the “System”).

- Airport Expressway (SR 112) from LeJeune Road & NW 21<sup>st</sup> Street to the I-95 / I-195 Interchange.
- East-West Expressway (SR 836) or Dolphin Expressway from NW 137<sup>th</sup> Avenue to the I-95 / I-395 Interchange.
- South Dade Expressway (SR 874) or Don Shula Expressway from Florida’s Turnpike to the Palmetto Expressway (SR 826).
- Snapper Creek Expressway (SR 878) from the South Dade Expressway (SR 874) to US 1.
- Gratigny Parkway (SR 924) from the Palmetto Expressway (SR 826) to NW 27<sup>th</sup> Avenue.

A summary of the historical traffic volumes is shown in Table 2-1. For more information on traffic volumes, please refer to the Traffic and Revenue Report prepared by Wilbur Smith & Associates.

The existing System is discussed in more detail in the following sections that include:

- A description of the facilities;
- A description of the overall System’s physical condition; and
- A summary of the Five-Year Work Program.



**HNTB**

**Figure 2-1: Existing System**

**Table 2-1**  
**Historical Average Annual Daily Traffic Volumes (AADT)**  
**Existing System**

| Calendar Year | East-West Expressway / SR 836            |                                   |                            |                                  | Airport Expressway / SR 112      |                                  | South Dade Expressway / SR 874 |                                      |                      | Gratigny Parkway / SR 924  |                                  | Snapper Creek Expressway / SR 878 |                                  |
|---------------|------------------------------------------|-----------------------------------|----------------------------|----------------------------------|----------------------------------|----------------------------------|--------------------------------|--------------------------------------|----------------------|----------------------------|----------------------------------|-----------------------------------|----------------------------------|
|               | Bet. NW 137 Avenue - HEFT <sup>(4)</sup> | Bet. NW 107 Avenue - NW 87 Avenue | Bet. SR 826 - NW 57 Avenue | Bet. NW 27 Avenue - NW 17 Avenue | Bet. LeJeune Road - NW 27 Avenue | Bet. NW 17 Avenue - NW 12 Avenue | Bet. HEFT - Killian Parkway    | Bet. Killian Parkway - Kendall Drive | Bet. SR 878 - SR 826 | Bet. SR 826 - NW 57 Avenue | Bet. NW 57 Avenue - LeJeune Road | Bet. SR 874 - SW 87 Avenue        | Bet. SW 87 Avenue - SW 72 Avenue |
| <b>2008</b>   | 25,500                                   | 136,000 <sup>(5)</sup>            | 208,000                    | 137,500                          | 98,000                           | 92,000                           | 88,500                         | 121,000                              | 67,000               | 62,000                     | 43,000                           | 50,000                            | 48,000                           |
| <b>2007</b>   |                                          | - <sup>(6)</sup>                  | 207,000                    | 139,500                          | 99,000                           | 90,500                           | 90,000                         | 119,500                              | 70,500               | 61,500                     | 42,000                           | 51,000                            | 50,500                           |
| <b>2006</b>   |                                          | 157,000                           | 207,000                    | 162,500                          | 100,000                          | 93,500                           | 77,000                         | 102,500                              | 48,000               | 52,500                     | 38,500                           | 44,500                            | 52,000                           |
| <b>2005</b>   |                                          | 146,000                           | 186,000                    | 161,000                          | 89,500                           | 95,500                           | 71,000                         | 111,000                              | 48,000               | 52,500                     | 38,500                           | 43,500                            | 52,000                           |
| <b>2004</b>   |                                          | 135,305                           | 197,000                    | 161,000                          | 89,500                           | 97,000                           | 71,000                         | 111,000                              | 48,000               | 63,000                     | 40,000                           | 47,500                            | 52,000                           |
| <b>2003</b>   |                                          | 131,893                           | 191,500                    | 146,500                          | 90,000                           | 109,000                          | 74,000                         | 118,000                              | 45,500               | 63,500                     | 37,500                           | 52,500                            | 50,000                           |
| <b>2002</b>   |                                          | 130,966                           | 175,500                    | 138,500                          | 96,000                           | 90,500                           | 70,500                         | 111,500                              | 63,000               | 77,000                     | 40,000                           | 51,500                            | 52,000                           |
| <b>2001</b>   |                                          | 126,000                           | 194,000                    | 135,000                          | 107,500                          | 100,000                          | 72,500                         | 107,000                              | 53,000               | 63,000                     | 46,000                           | 54,000                            | 52,000                           |
| <b>2000</b>   |                                          | 116,996                           | 189,500 <sup>(7)</sup>     | 135,000                          | 91,500                           | 109,000                          | 70,000                         | 112,000                              | 53,000               | 61,000                     | 44,000                           | 51,000                            | 52,000                           |
| <b>1999</b>   |                                          | 113,091                           | 192,500                    | 146,500                          | 97,500                           | 107,000                          | 70,500                         | 120,000                              | 60,500               | 57,500                     | 33,500                           | 51,000                            | 52,000                           |

Notes:

- 1) All data presented in this table pertains to mainline sections of the designated roadways in the vicinity of each existing or proposed toll gantry/plaza.
- 2) The annual average daily traffic volumes ("AADT") presented in this table were obtained from the 2008 FDOT Traffic Information DVD.
- 3) FDOT Traffic Information DVD documents FDOT's Annual Traffic Count Program that conducts traffic surveys to determine the volumes and types of vehicles using the State Highway System on an annual basis.
- 4) Only 2008 traffic data was available since this is a new segment of the East-West Expressway that opened to the public in mid-2007.
- 5) FDOT Traffic Information DVD reports "Manual Estimate from best data available".
- 6) Data for this site for the year 2007 was not reported (This roadway section was under construction during the first part of 2007).
- 7) FDOT Traffic Information DVD reports 89,500 vehicles/day. Since reported volume is clearly erroneous, it was corrected to 189,500 vehicles/day.

## **2.2 EXISTING SYSTEM DESCRIPTION PRE-ORT**

The expressway System as it exists prior to Open Road Tolling (ORT) is discussed in more detail below. For information regarding expressway System Tolling locations post-ORT refer to Section 4.

**The Airport Expressway (SR 112)** is a six-lane toll road that serves east-west commuter traffic in the eastern portion of the County, providing access to and from Miami International Airport (MIA) on the west, and to the I-95 and I-195 Interchange on the east (see Figure 2-3). The Airport Expressway is 4.1 miles in length, contains 26.4 lane miles, and extends from LeJeune Road and NW 21<sup>st</sup> Street to an interchange with I-95. East of I-95, the Airport Expressway connects to I-195, which is another major access road to and from the city of Miami Beach. The toll plaza is situated across the eastbound lanes only, and is located east of NW 17<sup>th</sup> Avenue. There are two dedicated high-speed Electronic toll Collection (ETC) lanes and three manual toll collection lanes, one of which also supports ETC thereby serving as a (mixed use) lane, serving the three eastbound through lanes.

**The East-West Expressway (SR 836)**, also known as the “Dolphin Expressway” (see Figure 2-2), is generally a six-lane Toll road with the most heavily travelled section upgraded to eight-lanes, oriented in the east-west direction serving as the main expressway link between downtown Miami, the central and western areas of the County, and Miami International Airport (MIA). The East-West Expressway is 14.0 miles in length, contains a total of 98.7 lane miles, and extends from an interchange with NW 137<sup>th</sup> Avenue to an interchange with I-95 near downtown Miami. East of I-95, the East-West Expressway connects to I-395 and the MacArthur Causeway, which serves as one of the major access roads to and from Miami Beach.

In 2007, MDX completed the East-West Expressway extension, which provides a new four lane, 2.2 mile extension of the East-West Expressway westward on new alignment to a new interchange at NW 137<sup>th</sup> Avenue and included the reconstruction of NW 137<sup>th</sup> Avenue to SW 8<sup>th</sup> Street. This extension is an ETC SunPass® only facility. As part of



the extension project, MDX constructed an ETC SunPass® gantry just east of NW 137<sup>th</sup> Avenue. This gantry has six (6) lanes of high-speed ETC equipment installed for the collection of tolls. No manual toll collection is provided at this location. Together with the extension project, MDX constructed a new two-way toll plaza on the existing East-West Expressway just west of 97<sup>th</sup> Avenue. This mainline toll plaza included two EastBound/WestBound(EB/WB) four-lane high-speed ETC gantries over the mainline for collecting tolls electronically. This tolling point also includes two conventional toll plazas (EB/WB) separated from but immediately adjacent to the mainline gantries.

The WB toll plaza has a total of five lanes. This toll plaza has three manual toll collection lanes for mainline traffic and one mixed use and one dedicated ETC lane for NW 107<sup>th</sup> Avenue north ramp traffic. The EB toll plaza has a total of four lanes. This toll plaza includes two manual lanes, one mixed use lane and one dedicated ETC lane. The final mainline toll plaza is located just west of the NW 17<sup>th</sup> Avenue interchange, collecting tolls in the EB direction only. MDX previously completed reconstruction of this toll facility with a mainline plaza containing six conventional toll lanes with two of these lanes equipped with ETC for mixed usage, two dedicated high-speed ETC lanes, and a separate ramp with its own four-lane toll plaza to NW 17<sup>th</sup> Avenue. Two of the lanes in the ramp plaza are dedicated ETC lanes. The other two lanes are mixed use lanes.

**The South Dade Expressway (SR 874)**, also known as the “Don Shula Expressway” (see Figure 2-4), serves commuter traffic traveling from the southwest area of the County. This Toll road has three lanes South of, and two lanes North of, the existing toll plaza. The South Dade Expressway is 7.2 miles long, contains a total of 42.6 lane miles, and extends from an interchange with the HEFT to an interchange with the Palmetto Expressway (SR 826). The South Dade Expressway’s only toll plaza is located just north of the interchange with the HEFT at the southern terminus of the South Dade Expressway (SR 874). The toll plaza has a total of ten lanes that collect tolls in both directions; each side having two dedicated high-speed ETC lanes and three manual toll collection lanes, with the right most lanes in each direction equipped with ETC for mixed usage.

**The Snapper Creek Expressway (SR 878)** is located between the South Dade Expressway (SR 874) and US 1 (see Figure 2-4). The Snapper Creek Expressway is a four-lane divided expressway with two lanes in each direction. The Snapper Creek Expressway is 3.0 miles in length, and contains a total of 13.6 lanes miles. There are no toll plazas on this expressway.

**The Gratigny Parkway (SR 924)** is a six-lane divided toll road located in the northern area of the County (see Figure 2-5). The Gratigny Parkway is 5.4 miles in length, contains a total of 39.7 lane miles, and extends from an interchange with I-75 and the Palmetto Expressway to approximately NW 27<sup>th</sup> Avenue, at which point it transitions into NW 119<sup>th</sup> Street. The toll plaza has a total of 17 lanes and is located west of the interchange of Gratigny Parkway (SR 924) with LeJeune/Douglas Connector Road. The toll plaza includes three reversible lanes which have been closed to traffic, four dedicated ETC lanes, four former automatic coin machine toll collection lanes which have been closed, and six manual toll collection lanes, with one in each direction equipped with ETC for mixed use.

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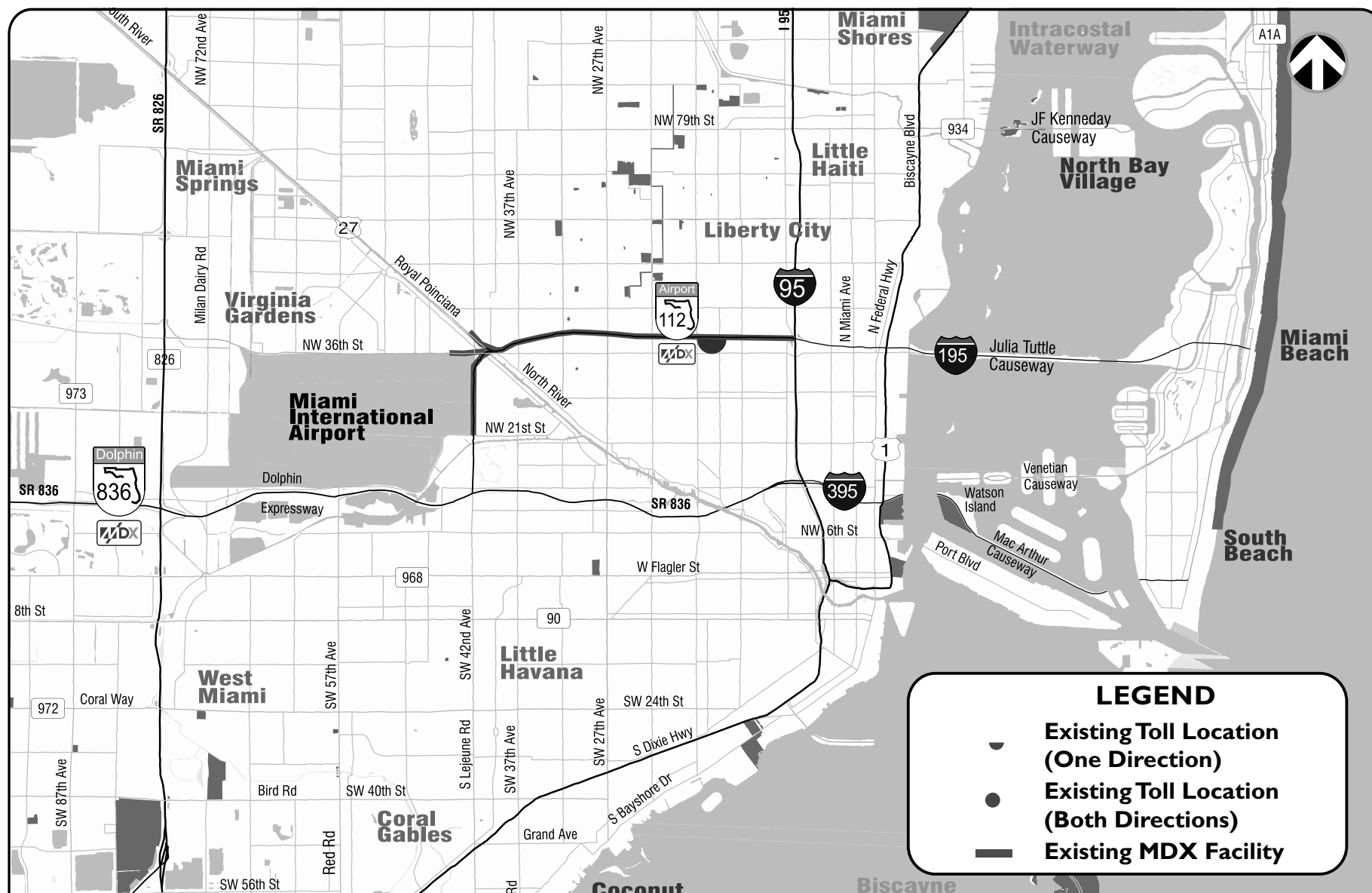
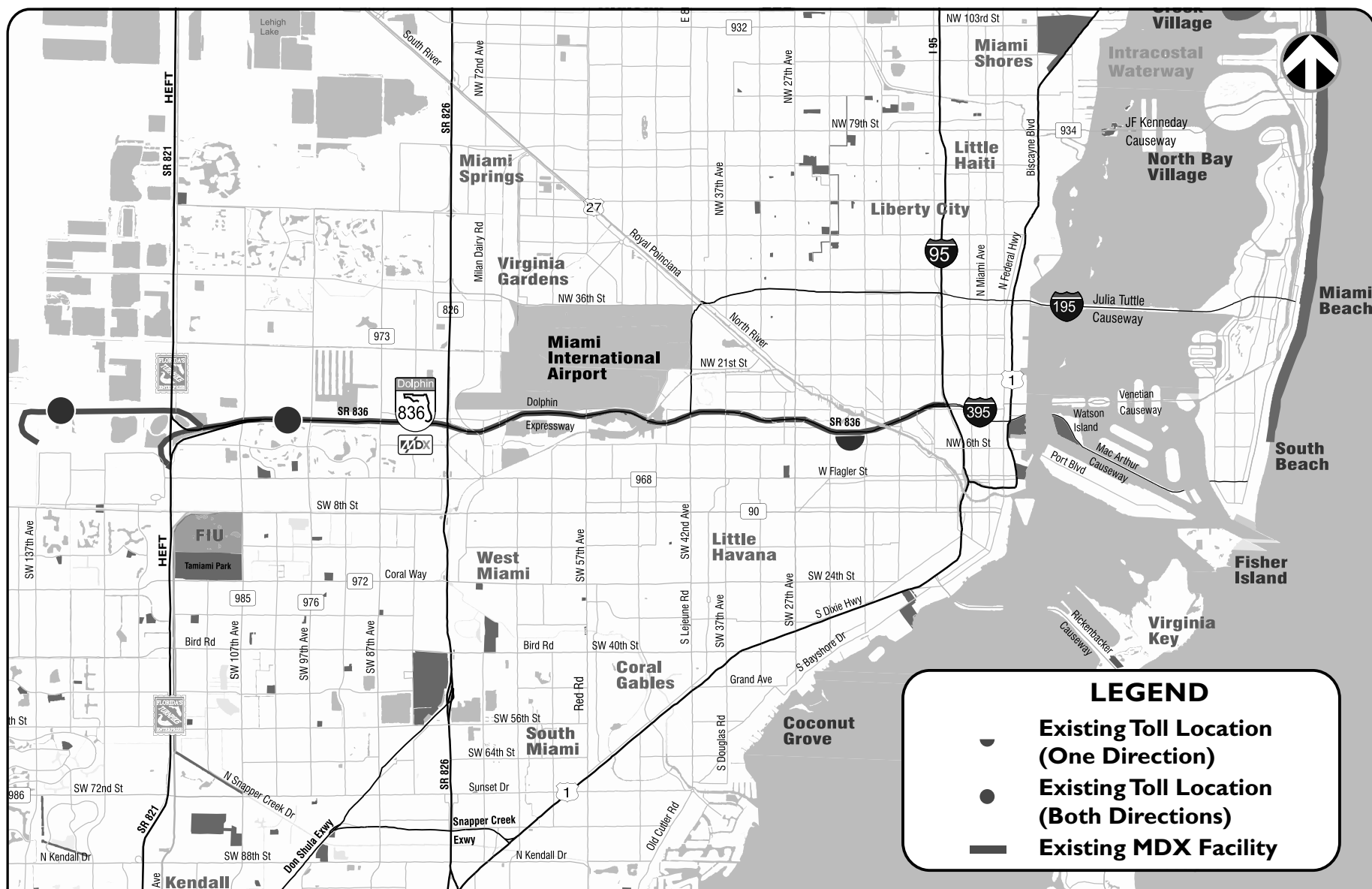
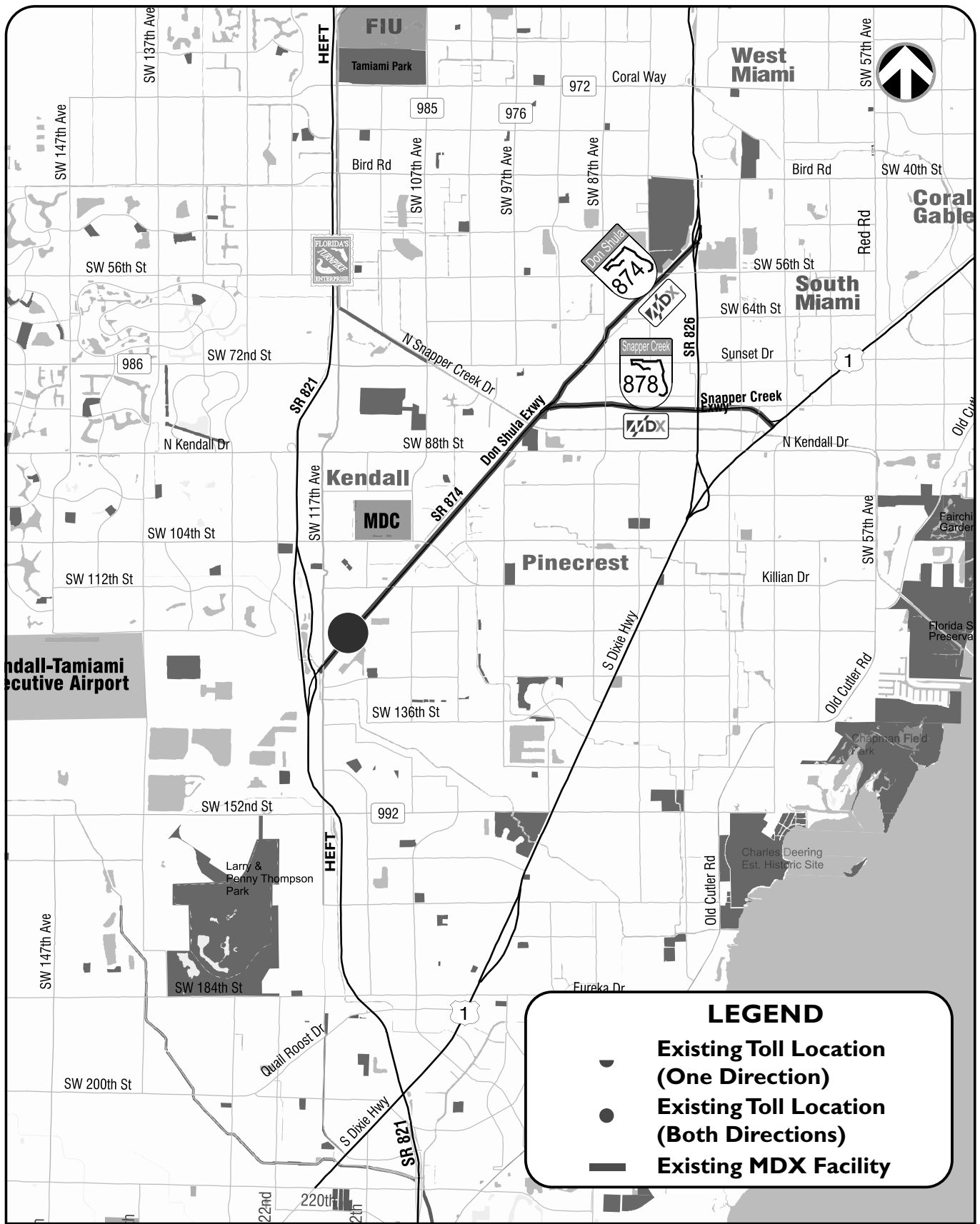

**HNTB**

Figure 2-2: Airport Expressway (SR 112)


**HNTB**
**Figure 2-3: East-West Expressway (SR 836)**



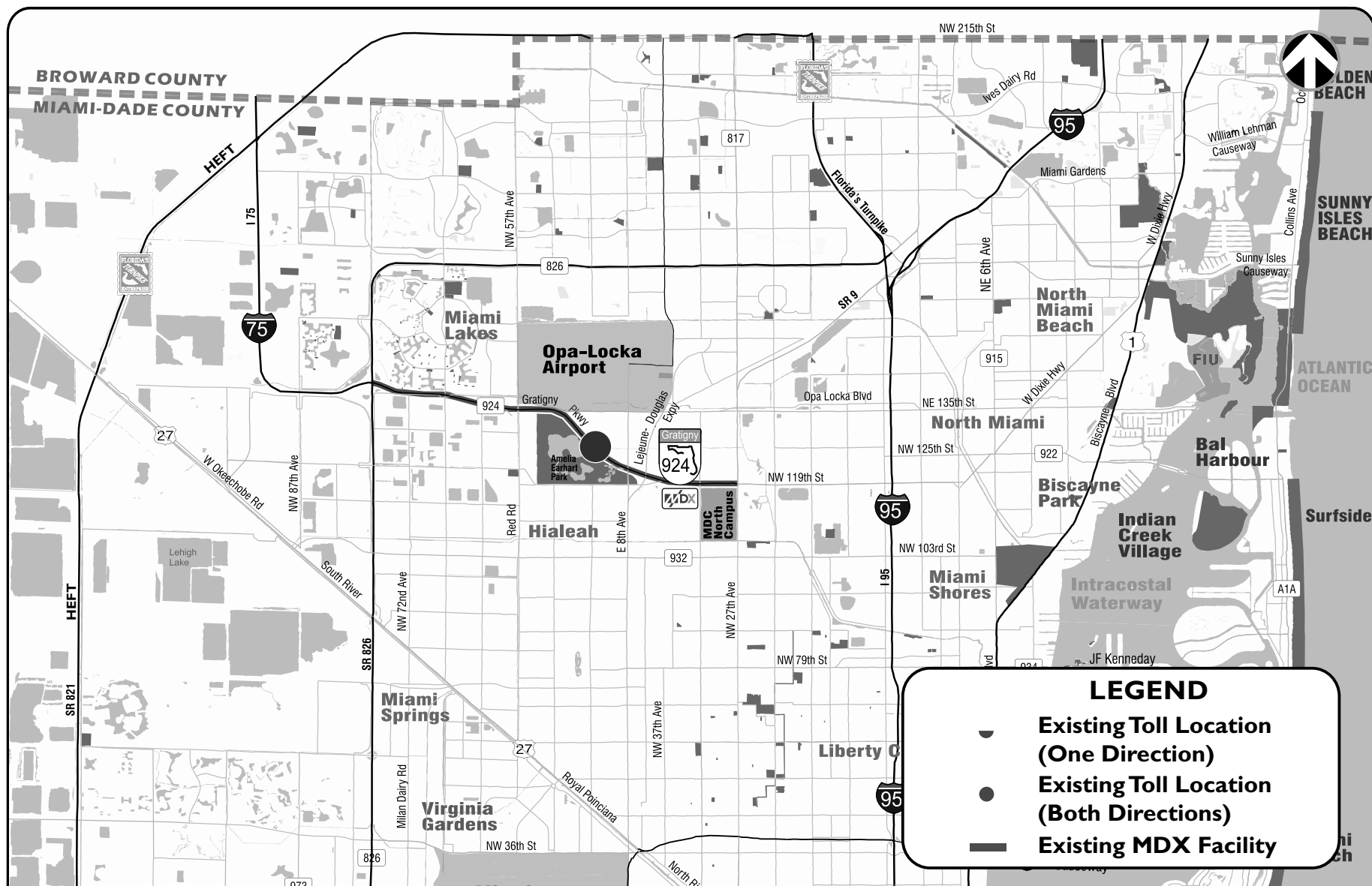

**HNTB**

Figure 2-5: Gratigny Parkway (SR 924)

## **2.3 SYSTEM CAPACITY**

Table 2-2 provides a general summary of the level of service (LOS) at which the existing System is operating. Generalized levels of service and estimated daily roadway capacities were derived from the 2009 FDOT Quality/Level of Service Handbook.

The concept of LOS uses qualitative measures that characterize operational conditions within a traffic stream and their perception by motorists and passengers. The descriptions of individual levels of service characterize these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. It is important to note that LOS is simply a quantitative breakdown from the roadway user's perspectives of transportation quality of service.

Based on the Highway Capacity Manual (HCM), the level of service grading criteria ranges from LOS A to LOS F, with LOS A representing a free-flow condition and LOS F representing failing conditions. The letter grades in between represent the various levels of congestion. LOS E is recognized as the minimum acceptable level of service for MDX roadways, as defined by Rule Chapter 14-94, Florida Administrative Code (F.A.C.) - Statewide Minimum Level of Service Standards for limited access roadways in urbanized areas with a population over 500,000 residents.

The following definitions reflect the general qualitative measure for each level of service.

- LOS A – Completely free flow conditions with operation of vehicles virtually unaffected by the presence of other vehicles.
- LOS B – Free flow, with presence of other vehicles becoming noticeable and average travel speeds slightly diminished from LOS A.
- LOS C – Influence of traffic density on operations is apparent, with ability to maneuver within the traffic stream clearly affected by the presence of other vehicles.
- LOS D – Bordering on unstable flow, with speeds and ability to maneuver severely restricted because of traffic congestion.

- LOS E – Operations at or near capacity, with unstable conditions.
- LOS F – Forced or breakdown flow, where vehicles traveling on the roadway arrive at a roadway segment at a rate greater than that at which they are discharged, forcing queues to form on the roadway. In this LOS, demand on the roadway exceeds the capacity.

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**Table 2-2**  
**Existing System Level of Service (LOS) Summary**

| Roadway <sup>(1)</sup>                   | Existing Conditions             |                                              |                             | Generalized Level of Service |     |
|------------------------------------------|---------------------------------|----------------------------------------------|-----------------------------|------------------------------|-----|
|                                          | No. of Lanes<br>(mainline+aux.) | Maximum Daily<br>Service Volume<br>(veh/day) | AADT <sup>(2)</sup><br>2008 | Volume to<br>Capacity Ratio  | LOS |
| <b>East-West Expressway / SR 836</b>     |                                 |                                              |                             |                              |     |
| Bet. NW 137 Avenue - HEFT                | 4+0                             | 79,400                                       | 25,500                      | 0.32                         | A   |
| Bet. NW 107 Avenue - NW 87 Avenue        | 8+0                             | 166,000                                      | 136,000                     | 0.82                         | D   |
| Bet. NW 72 Avenue - NW 57 Avenue         | 8+0                             | 149,400 <sup>(4)</sup>                       | 208,000                     | 1.39                         | F   |
| Bet. NW 27 Avenue - NW 17 Avenue         | 6+0                             | 110,430 <sup>(4)</sup>                       | 137,500                     | 1.25                         | F   |
| <b>Airport Expressway / SR 112</b>       |                                 |                                              |                             |                              |     |
| Bet. LeJeune Road - NW 27 Avenue         | 6+0                             | 122,700                                      | 98,000                      | 0.80                         | D   |
| Bet. NW 17 Avenue - NW 12 Avenue         | 9+0                             | 187,600                                      | 92,000                      | 0.49                         | A   |
| <b>South Dade Expressway / SR 874</b>    |                                 |                                              |                             |                              |     |
| Bet. HEFT - Killian Parkway              | 4+1 <sup>(3)</sup>              | 91,460 <sup>(4)</sup>                        | 88,500                      | 0.97                         | E   |
| Bet. Killian Parkway - Kendall Drive     | 6+0                             | 110,430 <sup>(4)</sup>                       | 121,000                     | 1.10                         | F   |
| Bet. SR 878 - SR 826                     | 4+0                             | 71,460 <sup>(4)</sup>                        | 67,000                      | 0.94                         | E   |
| <b>Gratigny Parkway / SR 924</b>         |                                 |                                              |                             |                              |     |
| Bet. SR 826 - NW 57 Avenue               | 6+0                             | 122,700                                      | 62,000                      | 0.51                         | A   |
| Bet. NW 57 Avenue - LeJeune Road         | 6+0                             | 122,700                                      | 43,000                      | 0.35                         | A   |
| <b>Snapper Creek Expressway / SR 878</b> |                                 |                                              |                             |                              |     |
| Bet. SR 874 - SW 87 Avenue               | 4+0                             | 79,400                                       | 50,000                      | 0.63                         | C   |
| Bet. SW 87 Avenue - SW 72 Avenue         | 4+0                             | 79,400                                       | 48,000                      | 0.60                         | C   |

Notes:

- 1) All data presented in this table pertains to mainline sections of the designated roadways in the vicinity of each existing or proposed toll
- 2) Annual average daily traffic volumes ("AADT") for calendar year 2008 obtained from the 2008 FDOT Traffic Information DVD.
- 3) Based on the 2009 FDOT Generalized Level of Service table, Max. Daily Service Volume adjusted by (+20,000 veh/day) for auxiliary lane.
- 4) Based on the 2009 FDOT Generalized Level of Service table, Max. Daily Service Volume adjusted by (-10%) for oversaturated conditions.

The most heavily traveled portion of the System is the East-West Expressway between NW 72<sup>nd</sup> Avenue and NW 57<sup>th</sup> Avenue with an AADT for the calendar year 2008 of 208,000 vehicles. The AADT volumes vary significantly on each segment (between interchanges), and sometimes exceed the total number of transactions at the toll gantries/plazas by a significant amount, as tolls are collected only in one direction, and not at the most congested sections of the expressways in some cases. Demand exceeds

capacity in various roadway segments along the East-West Expressway, mostly east of SR 826.

## **2.4 EXPRESSWAY SYSTEM ANNUAL INSPECTION AND REPORT**

### **2.4.1 Overview**

In accordance with the requirements of MDX's Amended and Restated Trust Indenture dated as of June 15, 2002 (Trust Indenture), the Consulting Engineers for MDX are required to perform an annual inspection of the System and submit a report of the inspection and condition of the System. The Annual Inspection Report summarizes the findings of the inspection by category as follows:

- Roadway,
- Bridges,
- Buildings.

The annual inspection of the System used for this report was performed by EAC serving as the MDX General Engineering Consultant, GEC B, and included a System-wide visual inspection of conditions throughout the System's roadways and at the Toll plaza facilities. The results of the inspection were documented in the Annual Inspection Report for FY 2009, dated June of 2009 and are summarized herein.

Each bridge structure is inspected by certified bridge inspectors on a two year cycle from the date such structure is originally placed in service. Inspections for the 127 bridges within the System are staggered within a two-year period. In general, MDX's bridge structures are in good condition, with various minor repairs required.

### **2.4.2 Summary of Annual Inspection Report**

This section contains a summary of the inspection assessment contained in the 2009 Annual Inspection Report prepared by EAC. The condition of the System is evaluated by the asset maintenance contractor under the FDOT Maintenance Rating Program (MRP) and by the consulting engineer during the annual inspection. The MRP is conducted three times a year at randomly selected locations to provide an in-depth quality assurance

assessment of services provided by the asset maintenance contractor. MDX adopted the rating program procedures of FDOT. Analysis of data assembled during the annual inspections assists in developing the Renewal and Replacement Program and the Capital Improvement Program components of the MDX Five-Year Work Program.

#### **2.4.3 Annual Inspection Program Objective**

This inspection program was conducted to meet the requirements set forth by the Trust Indenture. It provides MDX with an assessment of the overall condition of the System and includes any specific work needs or deficiencies noted. The objective of the inspection program is to collect information and make observations in each of the areas outlined, determine whether or not System needs are adequately addressed in the current MDX maintenance program or improvement projects, analyze the data and provide an overall assessment of the condition of the System.

The inspection program consists of a visual review of the infrastructure's condition throughout the roadway Systems roadways and its Toll plaza facilities. The summary of the inspection report provides information on the operational and physical condition of each roadway and toll plaza facility.

#### **2.4.4 Annual Inspection Program Scope**

To accomplish the objective of this inspection program, the following format was followed to collect the data, assess conditions and provide information in a format conducive for inclusion in MDX's maintenance and improvement program.

An inventory system was developed to collect data in order to record the conditions and assess the necessary repairs/maintenance of all facilities of the System. A System-wide inspection was conducted to identify the condition of roadways, drainage structures, toll plaza structures, buildings, toll equipment and all appurtenances (i.e., lighting, signing, pavement striping and markings). The inspections of bridges were conducted by two independent bridge inspection firms certified within the State of Florida. Data from these bridge inspection reports were relied on for this report as allowed by the Trust Indenture.

The work needs and repair items noted were transferred to detailed data collection sheets and supplemented with photographs taken of typical conditions to visually record the conditions observed. Any condition adequately being addressed in the routine maintenance program or in the ongoing Five-Year Work Program is then annotated with the appropriate MDX Project/Contract Number. A listing was then prepared of needs not specifically addressed in the current Five-Year Work Program. This listing is presented in the 'Recommendations' section of the report.

#### **2.4.5 Maintenance Rating Program (MRP)**

MDX utilizes the FDOT MRP to assess the overall condition of its roadway system with respect to maintenance. The MRP provides a method of conducting a visual and mechanical evaluation of routine highway maintenance conditions. Inspection scores are weighted in accordance with FDOT procedures based on element type and facility type (all MDX facilities are "Urban Limited Access").

The purpose of this evaluation is to provide information that can be used to schedule and prioritize routine maintenance activities and to provide uniform maintenance conditions that meet established objectives. Additionally the MRP provides a uniform means of comparing one roadway facility to another or of comparing prior inspections on the same roadway. General program requirements are outlined in the Maintenance Rating Handbook published by the FDOT. MRP inspections are performed three times per year jointly by MDX staff and an independent MRP inspection firm. Both MDX staff and the MRP inspection firm are trained and certified by FDOT in MRP inspections.

The MDX Performance Criteria Goal is an overall FY 2009 MRP score of 90. Subsequent fiscal years require a minimum MRP score of 91. The MDX Asset Maintenance Contract contains significant financial disincentives that encourage the Asset Maintenance Contractor to maintain the MDX roadway system at or above this minimum rating level. Please see Section 2.5.3 for information on the Florida Transportation Commission requirements for MRP for Toll Agencies.

FY 2009 MRP results are provided in Table-2-3 below.

TABLE 2-3

| Existing Expressway System MRP<br>Condition Rating - FY 2009 |               |         |
|--------------------------------------------------------------|---------------|---------|
| No.                                                          | Date          | Results |
| 1                                                            | July 2008     | 91      |
| 2                                                            | February 2009 | 89      |
| 3                                                            | May 2009      | 93      |
| FY 2009 Overall                                              |               | 91      |

Source: MDX

The most recent trimester MRP conducted by MDX was completed during May 2009 and resulted in a score of 93. The most recent year end MRP overall score of 91 exceeds the Performance Criteria Goal for FY 2009 of 90, and indicates a satisfactory level of maintenance of the System's roadway.

#### **2.4.6 Assessment of Expressways and Toll Facilities**

The assessment of the expressways and Toll facilities operations and conditions is based on the inspection, data collection and data characterization categorized by corridor for roadway features, toll plazas and administration buildings within the roadway corridors. A System inspection was performed by EAC of the entire length of each expressway in both travel directions, of all Toll collection facilities and the MDX headquarters building. Additionally, toll personnel, MDX maintenance personnel, MDX maintenance contractor personnel and GEC personnel involved in the Five-Year Work Program development were interviewed for clarification of existing programs in place as well as identification of needs not apparent in the inspection process.

The assessment classifies the inspection information and identifies any work needs or necessary repairs and assesses whether or not they are being addressed in current MDX projects in order to develop an implementation program for unaddressed needs.

#### **2.4.7 Inspection**

The findings of the inspection for each expressway and Toll facility continue to show above average levels of maintenance.

The overall analysis of the assets on a given expressway or of the MDX System as a whole is a subjective assessment based on the following:

- Consideration of the number of and type of work needs noted in relation to the expressway length;
- Determination as to whether the work needs or repair needs are being adequately addressed under current MDX projects/contracts;
- Consideration of the expressway classification (all MDX expressways are classified as urban corridors);
- Consideration of the Average Annual Daily Traffic (AADT) for that expressway;
- Acknowledgement that at any given point in time there will be a “normal” backlog of items resulting from vehicular impact damage awaiting repair; and
- Consideration of residual effect of any previous year’s natural disasters. In this region typically hurricane damage is a factor to contend with in some years.

#### **2.4.7.1 Roadway Assessment**

##### **2.4.7.1.1 Roadway**

The results of the inspections of the roadway areas of the System indicate that most of the roadway pavement is in good condition with the exception of some isolated areas along SR 112. The asphalt pavement on SR 112 has reached the end of its useful life and has been scheduled for milling and resurfacing in FY 2011 and FY 2012. Concrete pavement areas on the east end of SR 836 appear to be from original construction and are exhibiting cracking and repetitive repairs of potholes. Correction of this area has been included in MDX Project No. 30021, scheduled for completion in late FY 2010 to early FY 2011.

##### **2.4.7.1.2 Drainage**

The drainage system is in good condition System-wide. No indication of erosion or excessive roadway ponding was observed. Most drainage structures and culverts show a normal condition of sedimentation, except in some areas where sedimentation has brought

the original roadway template above existing outfall structures. Correction of this condition on SR 836 is included in MDX Project No. 30027.

#### **2.4.7.1.3 Structural**

Structural components, curbs, gutters, barrier walls are in good to excellent condition. With the exception of one isolated section of barrier wall location on SR 112, which is being addressed under the miscellaneous Systemwide bridge repairs project and Concrete Repair Contract. Construction is scheduled for FY 2010.

With regard to bridges, extensive and detailed inspections are performed for each bridge by independent Consultants (TransSystems Corporation Consultants and Marlin Engineering, Inc.) to MDX on a bi-annual schedule. Inspections are required to be performed by a Florida Certified Bridge Inspection/Engineering firm. MDX has chosen to group these inspections into 2-year cycles for the purposes of tracking and programming. VMS performs maintenance of the System including routine bridge repairs. MDX reported to the Florida Transportation Commission for FY 2008 that 97% of its bridges were rated as good or better according to FDOT Structural Condition Appraisals rating criteria and no bridges have posted weight restrictions.

#### **2.4.7.1.4 Barriers and Fences**

Overall the guardrails exhibit a normal state of vehicular impact damage and are being addressed through routine maintenance.

Limited-Access fencing in some corridors is in good condition. However, significant portions of SR 836 still have the old standard 4-foot limited access fencing used at the time of original construction. Current standard 6-foot black vinyl coated fencing is desirable. Attenuators are in excellent conditions System-wide. Although the guardrail is in good condition, there is a normal backlog of accident related locations where the guardrail is damaged. All guardrail assemblies function as designed. MDX has implemented a major guardrail improvement project to bring aging components in line with current design criteria and for fence replacement on SR 836.

#### **2.4.7.1.5 Pavement Markings and Signage**

The majority of existing sign panels is in good to excellent condition. Deteriorated signs throughout SR 112 and SR 836 continue to be replaced under MDX Project No. 40028.

Pavement markings on asphalt were recapped this year System-wide. Raised pavement markings were also replaced throughout the mainline System-wide.

#### **2.4.7.1.6 Electrical**

The roadway light fixtures are in good condition. Stolen, vandalized or missing hand hole and pole base covers continue to be a problem. In 2008 and 2009 under MDX Project No. 30017 numerous improvements were made in corridors not scheduled to undergo capacity improvements. Antiquated steel shaft light poles were replaced, all aging secondary load centers were replaced, all substandard/antiquated under-deck fixtures were replaced, and all light pole bases not protected by barrier were fitted with modern breakaway bases. An inspection of the lighting system at night showed that 99% of the lights were working.

#### **2.4.7.1.7 Vegetation/Aesthetics**

Roadways are for the most part in good condition as relates to vegetation and aesthetics. While the percentage of invasive and exotic vegetation decreased dramatically, there are isolated areas of Brazilian Pepper and Australian Pines that still remain. The overall appearance of the System continues to improve due to a substantial increase in the amount of new landscape installations.

### **2.4.7.2 Facility / Buildings Assessment**

#### **2.4.7.2.1 Architectural / Structural**

The administration buildings at the toll facilities are generally in good condition. Some of the features and finishes appear to be somewhat outdated. The terrazzo floors



throughout the interior of SR 112 building and isolated areas in the SR 836 building, display cracks and sporadic concrete patches but are well maintained.

The vinyl tile floors at the SR 112 plaza and SR 924 plazas are in good condition. In all the facilities, the ceilings are drop ceilings with acoustical tiles which are all in good condition. The windows of the buildings are in fair condition. The doors throughout the facilities are in good condition.

The exterior walls of some of the buildings need to be painted and in the case of the SR 924 Toll plaza, need to be repaired. They exhibit cracks in the stucco and brick facades and are typically located at the roof slab line. Repair of the SR 924 Toll plaza building has been completed under MDX Project No. 30024. The sidewalks are in fair condition. The roof at each location appears to be in good condition, but have reached the end of their useful life. Replacement is scheduled for FY 2011 and FY 2012 under MDX Project No. 30024. Water stains on the interior ceiling tiles were noted in some locations but active leaks were not found in any of the buildings.

The tunnels at SR 836 and SR 924 from the toll facility administration building to the toll islands are architecturally and structurally in good repair. The concrete walls have minor cracks. The tunnel slabs are in fair to good condition and exhibits minor cracks. The SR 924 tunnel is scheduled to be filled and abandoned in place in FY 2010 as part of the Open Road Tolling (ORT) conversion.

The roof supports/columns for the canopies generally exhibit some degree of corrosion including SR 836 which is the newest canopy structure. The Toll booths of all plaza facilities vary from fair to excellent. The structural framing of some of the older booths is old and worn with some cases of damage due to vehicular impact. The concrete curb and pavement slabs within the booth areas have minor cracks and deterioration as well as vehicular impact damage. It should be noted that the Toll plazas, including Toll booths, islands and canopies, are scheduled to be removed as part of the ORT conversion, except for “The Wing” on SR 836.

#### **2.4.7.2.2 Mechanical**

The mechanical systems in the administration buildings System-wide are in good repair. HVAC equipment received cleaning and general routine maintenance. New HVAC back up units were added in FY 2008 to existing toll plazas server rooms on SR 112, SR 836, SR 874 and SR 924 but the main units have reached the end of their useful life. Replacement is scheduled for FY 2011 and FY 2012 under MDX Project No. 30024.

The plumbing fixtures and drains for the toilet rooms and kitchens are in good repair.

The canopies of the toll plazas exhibit fair to good roof drainage. There is some ponding on the roof around drains. Drainage from A/C units has been directed to the roof drains. On the interior of the tollbooths, the heating and cooling units and their controls are in good repair. Toll booths have been equipped with portable heaters.

The fuel systems for the standby generators are generally in good condition. The generators at SR 874 and SR 112 Toll plazas are old but are functional with sufficient capacity. SR 874 in particular has a generator showing significant age. The generators at all of the Toll plazas, with the exception of the generators at the new Toll plaza on SR 836, have reached the end of their useful life, and are scheduled for replacement in FY 2011 and FY 2012 under MDX Project No. 30024. The generator muffler/exhaust systems are insulated and show minor signs of corrosion. The propane fuel tanks for SR 112 and SR 836 (NW 17th Ave) Toll plazas are in good repair.

The lift station pump at SR 924 exhibits signs of age and extensive corrosion. The pump will be replaced under MDX Project No. 30024 in FY 2010 or FY 2011.

#### **2.4.7.2.3 Electrical**

The electrical inspections of the administration buildings reveal components in good repair. The lighting conditions and illumination levels seem to be low in some facilities, but fixtures are in good repair for the tunnels and toll island areas. The lighting and power supplies for the signs on the canopy and the booths are in good repair.

### **2.4.7.3 Recommendations**

The 2009 annual inspection has found the MDX System to be in good repair, working order and condition.

Recommendations are offered for work to be included in either the MDX Maintenance Program, as accomplished by VMS under the Facility and Roadway Asset Maintenance Contract, see Section 2.5.3 for additional information, or the R&R Program. The recommended actions are outlined in the following sections of this report and represent issues identified through the inspection process as well as those identified by MDX Maintenance and Operations. Recommendations are categorized by discipline and degree of urgency. Some recommendations are more general in nature and are directed to the Maintenance and R&R Programs as a whole.

Recommendations are made for only those items that may not be adequately addressed in the ongoing maintenance program or repair and improvement programs.

General recommendations - *should be considered for inclusion in the work effort at the earliest date that funding allows.*

Urgent recommendations - *should be addressed as soon as possible to avoid deterioration and additional long term expense.*

Critical recommendations - *should be addressed immediately to protect the safety of MDX patrons and the System.*

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### **General Recommendations**

There are no recommendations categorized as general.

### **Urgent Recommendations**

There are no recommendations categorized as urgent.

### **Critical Recommendations**

There are no recommendations categorized as critical.

## **2.5 MDX OPERATIONS AND MAINTENANCE PROGRAM**

### **2.5.1 Toll Operations**

MDX entered into a contract for Toll System Development with United Toll Systems (“UTS”) on October 26, 2001. Key components include the licensing by UTS to MDX of certain software and documentation and the provision of software maintenance and technical support services in relation to the Toll management and collection system for the existing MDX Toll collection system. This agreement expires on December 31, 2010. It is anticipated that MDX will extend this agreement until the transition to ORT is complete, no later than the end of FY 2014.

MDX is currently performing its own Toll Collection System Hardware Maintenance with in-house personnel; including the maintenance, repair and replacement of all equipment that is part of the Toll collection system as well as the maintenance of inventory parts and monitoring of the Maintenance On-line Management System (MOMS) among other duties.

Personnel for Toll collection and Toll Enforcement Center (TEC) staffing are currently provided by Faneuil Toll Operations, LLC and Faneuil II, Inc. respectively. Those contracts were executed on July 01, 2009. The term of these contracts run until June 30,

2012. ETCC will take over operational responsibilities for the Toll Enforcement Center in June of 2010, at which time the existing Contract with Faneuil II, Inc. will be terminated. The Contract with Faneuil Toll Operations, LLC will need to either be extended or re-procured to provide for cash Toll collection services until MDX fully converts to ORT, no later than the end of FY 2014.

MDX is currently in the process of converting the entire System to ORT. For a description of the ORT conversion, see Section 4 of this report. As part of this conversion, MDX executed a contract with ETCC on April 14, 2009, to provide a new System-wide ORT Toll collection system. As part of this contract, ETCC will assume operation of the TEC. ETCC will provide for operations, system hardware maintenance and warranty for the new ORT System for a period of three (3) years, with seven (7), one (1) year renewal options. ETCC will also provide software maintenance for a period of ten (10) years after provisional acceptance of Phase I. As the MDX Toll collection system is converted to ORT, the Contracts with UTS and Faneuil Toll Operations, LLC will be phased out.

### **2.5.2 Roadway Operations**

MDX is currently operating a Traffic Management Center (TMC) which provides oversight for all five System roadways. The TMC is staffed by EAC, and provides for monitoring of the System and dispatch of emergency vehicles and Road Ranger Services. The TMC is co-located within the FDOT District 6 TMC, which provides for certain efficiencies and proper coordination during events that affect multiple facilities.

MDX also has a contract with Anchor Towing, Inc. to provide Road Ranger Service Patrols. The services provided are free to MDX patrons who break down or run out of gas on a System Roadway. This service rapidly clears breakdowns from the System roadways, thereby improving the safety of the roadways. The current contract ends on June 30, 2013.

MDX currently obtains the insurance for their buildings and structures as required by the Trust Indenture through FDOT on an annual basis. MDX's share of the insurance premiums is based on the Annual Facility and Bridge Assessment, Insurance Coverage Update, prepared by HNTB.

Also funded out of roadway Operations are MDX costs for electrical service for roadway lighting, ITS and communications systems; utility locate services; Rapid Incident Scene Clearance (RISC); and National Pollutant Discharge Elimination System (NPDES) permit compliance.

### **2.5.3 Roadway Maintenance**

Facility and roadway asset maintenance on the System continue to be provided by VMS, under the Facility and Roadway Asset Maintenance Contract executed in January 2009 with an Initial Term ending on June 30, 2014, with two 2-year renewal options. This is a performance based contract where the key responsibility of VMS is to ensure that all of the components of the System, including, but not limited to buildings, asphalt, turf, bridges, guardrail, attenuators, barrier & noise walls, signs, fence, landscaping, lighting and drainage structures are kept at or above certain performance levels set forth by MDX in the contract documents. MDX bases its ratings on the FDOT MRP. The performance of VMS is based on the established MRP rating of 90 as the minimum acceptable rating for FY 2009 and a minimum rating of 91 thereafter. The rating of 91 exceeds the Florida Transportation Commission (FTC) required MRP rating for toll roads, which is an annual average MRP score of 90. It should be noted that the FTC required MRP rating for non tolled limited access roads is 80, so Toll roads have to meet a much higher standard. VMS is required to conduct ratings based on the MRP every four months, as prescribed in the latest FDOT MRP Handbook. The contract also includes financial disincentives for not meeting (i) various contract requirements, (ii) required repair time frames and (iii) required MRP scores as well as false self reporting..

The last complete rating cycle that VMS conducted was for FY 2009. The rating resulted in an average score of 91, which exceeds the mandatory requirement of the contract.

In addition to the maintenance activities described above, the following activities are also accomplished under Roadway Maintenance:

- Non-routine guardrail/signing/lighting replacements.
- ITS field repair services.
- Toll infrastructure repairs (existing system only).
- Structural inspections/emergency structure design.
- Maintenance of the MIAMIS (MDX Inventory and Asset Management Information System) asset maintenance software.
- Maintenance support services.

#### **2.5.4 Operations and Maintenance Projections**

The following projections were developed through a collaborative effort among MDX directors and staff and HNTB staff according to the following parameters:

- The approved MDX FY 2010 Operation and Maintenance budget was used as a baseline.
- HNTB then compared the FY 2010 budget to the FY 2009 actual amounts and/or projected actual amounts to determine if there was any need to adjust costs for future projections.
- This information, together with any known proposed changes in Operation and Maintenance procedures, was then discussed with MDX directors and staff to assist in developing the projections.
- HNTB also reviewed existing contracts and used the amounts dictated by these contracts for future projections.
- HNTB also incorporated any changes in Operation and Maintenance costs resulting from existing MDX 5-Year Work Program projects that would be completed and put into operation during the projection period.
- HNTB did not include any Operation and Maintenance costs for any projects currently in the planning or design phase, unless money for construction was also included in the MDX 5-Year Work Program. These Operation and Maintenance costs, as well as potential future revenue, will be evaluated on a case-by-case basis prior to any of these projects being funded for construction in the MDX 5-Year Work Program.

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Table 2-4 contains projected Operations and Maintenance costs for the System.

**Table 2-4**  
**Summary of Administrative, Maintenance and Operations Expense Projections**  
**Based on Implementation of the Five-Year Work Program (in \$000s)**

| <b>FISCAL<br/>YEAR</b> | <b>ADMINISTRATIVE</b> | <b>MAINTENANCE</b> | <b>OPERATIONS</b> | <b>TOTAL</b> |
|------------------------|-----------------------|--------------------|-------------------|--------------|
| 2011                   | \$10,123              | \$6,590            | \$22,598          | \$39,311     |
| 2012                   | 10,590                | 7,035              | 23,869            | 41,494       |
| 2013                   | 10,979                | 7,243              | 23,781            | 42,003       |
| 2014                   | 11,381                | 7,696              | 26,090            | 45,167       |
| 2015                   | 11,856                | 8,139              | 26,930            | 46,925       |
| 2016                   | 12,206                | 8,356              | 27,776            | 48,338       |
| 2017                   | 12,566                | 8,572              | 28,938            | 50,076       |
| 2018                   | 12,937                | 8,908              | 30,356            | 52,201       |
| 2019                   | 13,319                | 9,143              | 30,719            | 53,181       |
| 2020                   | 13,712                | 9,716              | 32,149            | 55,577       |

Source for Administrative: MDX.

### **2.5.5 Renewal and Replacement Projections**

The following Renewal and Replacement Program was developed through a collaborative effort among MDX directors and staff and HNTB staff according to the following parameters:

- HNTB developed this Renewal and Replacement Program based on information obtained from the 2009 Annual Inspection Report, the Systemwide Bridge Rehabilitation/Replacement Planning Study, HNTB's familiarity with the System and experience preparing similar programs for other toll agencies.
- The Renewal and Replacement Program is intended to cover unusual or extraordinary maintenance or repairs, maintenance or repairs not recurring annually, and renewals and replacements on the System.
- The Renewal and Replacement Program also anticipates Renewal and Replacement requirements for projects that are currently funded for construction in the FY 2011-2015 Five-Year Work Program.
- Costs used in the development of this program were derived from bids received on recent MDX Projects, together with FDOT local unit bid prices.



- This information was then discussed with MDX directors and staff to assist in developing the projections.
- It should be noted that only the first five years of the Renewal and Replacement costs are currently funded within the MDX Work Program.

Table 2-5 contains projected Renewal and Replacement costs for the system.

**Table 2-5**  
**Summary of projected Renewal and Replacement costs for the System**  
(in \$000s)

| <b>FISCAL<br/>YEAR</b> | <b>RENEWAL AND<br/>REPLACEMENT<br/>COSTS</b> |
|------------------------|----------------------------------------------|
| 2011                   | \$14,996                                     |
| 2012                   | 8,000                                        |
| 2013                   | 2,444                                        |
| 2014                   | 569                                          |
| 2015                   | 199                                          |
| 2016                   | 5,418                                        |
| 2017                   | 8,272                                        |
| 2018                   | 14,152                                       |
| 2019                   | 8,592                                        |
| 2020                   | 5,878                                        |

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### Section 3

## 3. FISCAL YEAR 2011 - 2015 FIVE-YEAR WORK PROGRAM PROJECTS

### 3.1 INTRODUCTION

The projects in the current Work Program have been grouped into one of the four categories as shown in Table 3-1. Renewal and Replacement (R&R) Program Projects have been separated from the capital Projects since they are not eligible for the use of bond proceeds. Program category groupings have been organized within the following definitions. **Existing System Improvement** projects include any widening or reconstruction within an existing roadway segment. **System Expansion** projects include all construction of new roadway segments on new alignments adjacent to the existing System. **Facility Improvement** projects designate all non-routine maintenance and minor roadway and bridge improvements/enhancements and toll plaza, toll and ITS projects throughout the System. **New Expressway** projects include construction of new alignments and modifications/improvements of existing portions of roads acquired by MDX that will be added to the System.

**Table 3-1**  
**FY 2011-2015 Five-Year Work Program Categories**

| Program Category             | Number of Projects | Estimated Capital Project Cost (\$000s) | Estimated R&R Project Cost (\$000s) | Total (\$000s)   |
|------------------------------|--------------------|-----------------------------------------|-------------------------------------|------------------|
| Existing System Improvements | 16                 | \$310,683                               | --                                  | \$310,683        |
| System Expansion Projects    | 6                  | 93,636                                  | --                                  | 93,636           |
| Facility Improvements        | 30                 | 43,103                                  | \$26,008                            | 69,111           |
| New Expressway               | 3                  | 15,276                                  | --                                  | 15,276           |
| Contingency Reserve          | --                 | 5,200                                   | 200                                 | 5,400            |
| <b>TOTAL</b>                 | <b>55</b>          | <b>\$467,898</b>                        | <b>\$26,208</b>                     | <b>\$494,106</b> |

Note: All costs are Fiscal Year-of-expenditure costs

Individual project descriptions, projected date of completion and estimated costs of both Capital and R&R Projects within the five-year window from FY 2011-2015 are summarized in Table 3-2. These figures are totaled by project phase.

**Table 3-2**  
**FY 2011-2015 Five-Year Work Program – Project Summaries**  
**Transportation Improvement Program**

| Project Number               | Project Name                                                                                                                                                                                                                                                    | Estimated In Service Date (FY) | Phase               | Project Cost FY 2011-2015 |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|---------------------------|
|                              | Description                                                                                                                                                                                                                                                     |                                |                     |                           |
| <b>11205</b>                 | <b>Interconnector from MIA to SR 112</b>                                                                                                                                                                                                                        |                                |                     |                           |
| System Expansion             | Identify improvements to LeJeune Road, SR 112, and Iron Triangle Interchange. Develop a master plan for the future direct connection between SR 836 and SR 112 with coordination of right-of-way acquisition with Miami-Dade Transit Authority between NW 25th  | 2011                           | Project Development | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$48                      |
|                              |                                                                                                                                                                                                                                                                 |                                | Right-of-Way        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>11209</b>                 | <b>SR 112 Infrastructure Modifications for Open Road Tolling</b>                                                                                                                                                                                                |                                |                     |                           |
| Existing System Improvements | Removal of existing toll plaza, installation of gantries, shelter and signage, and modification to the SR 112 roadway in the area of the gantries to accommodate highway-speed vehicle traffic for implementation of Open Road Tolling.                         | 2012                           | Project Development | \$77                      |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$591                     |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$7,199                   |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>11211</b>                 | <b>Central Boulevard Reconstruction</b>                                                                                                                                                                                                                         |                                |                     |                           |
| System Expansion             | JPA with FDOT and Miami International Airport for partial funding and construction of Central Boulevard, the primary access roadway between MIA and SR 112 and SR 836.                                                                                          | 2013                           | Project Development | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$83,722                  |
| <b>83608</b>                 | <b>SR 826 / SR 836 Interchange Improvements</b>                                                                                                                                                                                                                 |                                |                     |                           |
| Existing System Improvements | Includes Design, Construction and Right-of-Way JPA w/ FDOT for partial funding of SR 826 / SR 836 interchange. Refer to FM 249581.                                                                                                                              | 2020                           | Project Development | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$115,345                 |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>83611</b>                 | <b>SR 836 / I-95 Interchange Environmental Assessment</b>                                                                                                                                                                                                       |                                |                     |                           |
| Existing System Improvements | Coordination of operational improvements to SR 836 from NW 17th Avenue to I-95 Interchange with City of Miami, FDOT-6, and others. JPA established with FDOT.                                                                                                   | 2011                           | Project Development | \$95                      |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>83618</b>                 | <b>SR 836 Southwest Extension</b>                                                                                                                                                                                                                               |                                |                     |                           |
| System Expansion             | Preparation of concept report and PD&E Study for new expressway extension of SR 836 from NW 137th Avenue to SW 136th Street as part of the MDX Master Plan and the MPO Long Range Transportation Plan.                                                          | 2014                           | Project Development | \$5,341                   |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>83622</b>                 | <b>SR 836 EB Auxiliary Lane</b>                                                                                                                                                                                                                                 |                                |                     |                           |
| Existing System Improvements | Design and construction of an eastbound auxiliary lane along SR 836 from west of NW 57th Ave to NW 42 Ave.                                                                                                                                                      | 2011                           | Project Development | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$8,604                   |
| <b>83624</b>                 | <b>SR 836 Infrastructure Modifications for Open Road Tolling</b>                                                                                                                                                                                                |                                |                     |                           |
| Existing System Improvements | Removal of existing toll plaza, installation of gantries, shelter and signage, and reconstruction of the SR 836 roadway to accommodate highway-speed vehicle traffic for implementation of Open Road Tolling.                                                   | 2014                           | Project Development | \$288                     |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$724                     |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$19,499                  |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>83625</b>                 | <b>SR 836 Emergency Ramp</b>                                                                                                                                                                                                                                    |                                |                     |                           |
| Existing System Improvements | Design and construction of emergency access ramp from west of NW 107th Avenue westbound to SR 836 Extension. Includes emergency vehicle opening between 127th and 137th Avenues.                                                                                | 2012                           | Project Development | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$137                     |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$3,654                   |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>83627</b>                 | <b>SR 836 Express Bus Service Study</b>                                                                                                                                                                                                                         |                                |                     |                           |
| Existing System Improvements | Study of current conditions and needed improvements for potential development of express bus service along the SR 836 outside shoulders in the eastbound and westbound directions; with potential park and ride lots at selected locations in coordination with | 2011                           | Project Development | \$108                     |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Right-of-Way        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>83628</b>                 | <b>SR 836 Auxiliary Lanes and Interchange Improvements</b>                                                                                                                                                                                                      |                                |                     |                           |
| Existing System Improvements | Project development for the construction of SR 836 Eastbound Auxiliary Lane from 42nd Ave. to 27th Ave.; SR 836 Westbound additional lanes from 27th Ave. to 57th Ave. and improvements to the SR 836/LeJeune Interchange as well as to the SR 836/27th Ave. In | 2013                           | Project Development | \$1,227                   |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$8,871                   |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>83629</b>                 | <b>SR 836 Interchange Modifications at 87th Avenue</b>                                                                                                                                                                                                          |                                |                     |                           |
| Existing System Improvements | Reconstruction of the SR 836 Mainline and NW 87th Avenue Interchange to 500 feet west of NW 82nd Avenue.                                                                                                                                                        | 2012                           | Project Development | \$97                      |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$6,600                   |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |

**Table 3-2**  
**FY 2011-2015 Five-Year Work Program – Project Summaries**  
**Transportation Improvement Program**

| Project Number               | Project Name                                                                                                                                                                                                                                                    | Estimated In Service Date (FY) | Phase               | Project Cost FY 2011-2015 |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|---------------------------|
|                              | Description                                                                                                                                                                                                                                                     |                                |                     |                           |
| <b>83630</b>                 | <b>SR 836 and NW 14 Street Interchange Improvements</b>                                                                                                                                                                                                         |                                |                     |                           |
| Existing System Improvements | Widening of Westbound Exit Ramp at NW 14th Street and SR 836.                                                                                                                                                                                                   | 2012                           | Project Development | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$75                      |
|                              |                                                                                                                                                                                                                                                                 |                                | Right-of-Way        | \$10                      |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$732                     |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>87404</b>                 | <b>SR 874 / Killian Parkway Interchange</b>                                                                                                                                                                                                                     |                                |                     |                           |
| Existing System Improvements | Modification of Killian Parkway Interchange and provision for new northbound and southbound electronic toll collection gantries. Includes removal of existing northbound and southbound toll plazas; roadway widening and installation of sound barrier walls.  | 2012                           | Project Development | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Right-of-Way        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$24,829                  |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>87409</b>                 | <b>SR 874 Mainline Reconstruction</b>                                                                                                                                                                                                                           |                                |                     |                           |
| Existing System Improvements | Widening and resurfacing of SR 874 mainline from Kendall Drive to SR 826. Preparation of noise analysis report and installation of sound barrier walls.                                                                                                         | 2012                           | Project Development | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$886                     |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$85,944                  |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>87410</b>                 | <b>SR 874 Ramp Connector</b>                                                                                                                                                                                                                                    |                                |                     |                           |
| System Expansion             | Project development and preparation of concept report and PD& E Study for a connection from SR 874 to SW 136th Street as part of the MDX Master Plan and the MPO Long Range Transportation Plan.                                                                | 2011                           | Project Development | \$534                     |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>87411</b>                 | <b>SR 874 / SR 826 Interchange Improvements</b>                                                                                                                                                                                                                 |                                |                     |                           |
| Existing System Improvements | JPA with FDOT to contribute monies towards the reconstruction of the SR 874 / SR 826 Interchange to facilitate the construction of MDX Project 87409.                                                                                                           | 2011                           | Project Development | \$22                      |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$15,005                  |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>87412</b>                 | <b>SR 874 Infrastructure Modifications for Open Road Tolling</b>                                                                                                                                                                                                |                                |                     |                           |
| Existing System Improvements | Installation of gantries, shelter and signage for implementation of Open Road Tolling on SR 874.                                                                                                                                                                | 2011                           | Project Development | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$829                     |
| <b>87801</b>                 | <b>SR 878 Infrastructure Modifications for Open Road Tolling</b>                                                                                                                                                                                                |                                |                     |                           |
| Existing System Improvements | Installation of gantries, shelter and signage for implementation of Open Road Tolling on SR 878.                                                                                                                                                                | 2011                           | Project Development | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$660                     |
| <b>92404</b>                 | <b>SR 924 Extension West to the Homestead Extension of the Florida Turnpike</b>                                                                                                                                                                                 |                                |                     |                           |
| System Expansion             | Project development and preparation of concept report and PD&E Study for a new expressway extension from SR 924 west to the Homestead Extension of the Florida's Turnpike (HEFT) as part of the MDX Master Plan and the MPO Long Range Transportation Plan.     | 2012                           | Project Development | \$1,794                   |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>92405</b>                 | <b>SR 924 Infrastructure Modifications for Open Road Tolling</b>                                                                                                                                                                                                |                                |                     |                           |
| Existing System Improvements | Removal of existing toll plaza, installation of gantries, shelter and signage, and reconstruction, milling and resurfacing of the SR 924 roadway to accommodate highway-speed vehicle traffic for implementation of Open Road Tolling. Also includes milling, r | 2011                           | Project Development | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$8,576                   |
| <b>92407</b>                 | <b>SR 924 Extension East to I-95</b>                                                                                                                                                                                                                            |                                |                     |                           |
| System Expansion             | Preparation of PD&E Study for a new expressway extension from SR 924 east to I-95 as part of the MDX Master Plan and the MPO Long Range Transportation Plan.                                                                                                    | 2012                           | Project Development | \$2,196                   |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>20001</b>                 | <b>Connect 4 Xpress</b>                                                                                                                                                                                                                                         |                                |                     |                           |
| New Expressway               | Project development for new expressway connecting SR 836, SR 112 and SR 924. Includes system interchanges with SR 112 and SR 924 and potential service interchanges with NW 54th Street, NW 79th Street and NW 103rd Street with connectors to NW 37th Avenue.  | 2014                           | Project Development | \$10,099                  |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| <b>20002</b>                 | <b>Systemwide Planning</b>                                                                                                                                                                                                                                      |                                |                     |                           |
| New Expressway               | Systemwide planning studies.                                                                                                                                                                                                                                    | 2011                           | Project Development | \$94                      |
|                              |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                              |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |

**Table 3-2**  
**FY 2011-2015 Five-Year Work Program – Project Summaries**  
**Transportation Improvement Program**

| Project Number                            | Project Name                                                                                                                                                                                                                          | Estimated In Service Date (FY) | Phase               | Project Cost FY 2011-1015 |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|---------------------------|
|                                           | Description                                                                                                                                                                                                                           |                                |                     |                           |
| 20003                                     | U.S. 1 Express Lanes                                                                                                                                                                                                                  |                                |                     |                           |
| New Expressway                            | Preparation of PD&E Study to convert existing Busway into Managed Lane facility as part of the MDX Master Plan and the MPO Long Range Transportation Plan.                                                                            | 2012                           | Project Development | \$5,084                   |
|                                           |                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Construction        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Design/Build        | \$0                       |
| 10013                                     | SR 924 Toll System Conversion                                                                                                                                                                                                         |                                |                     |                           |
| Facility Improvements                     | SR 924 toll system conversion from the existing toll collection system to an Open Road Tolling (ORT) system.                                                                                                                          | 2011                           | Project Development | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Construction        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Design/Build        | \$434                     |
| 10014                                     | SR 878 Toll System Conversion                                                                                                                                                                                                         |                                |                     |                           |
| Facility Improvements                     | SR 878 toll system conversion from the existing toll collection system to an Open Road Tolling (ORT) system.                                                                                                                          | 2011                           | Project Development | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Construction        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Design/Build        | \$216                     |
| 10015                                     | SR 874 Toll System Conversion                                                                                                                                                                                                         |                                |                     |                           |
| Facility Improvements                     | SR 874 toll system conversion from the existing toll collection system to an Open Road Tolling (ORT) system.                                                                                                                          | 2011                           | Project Development | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Construction        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Design/Build        | \$875                     |
| 10016                                     | SR 112 Toll System Conversion                                                                                                                                                                                                         |                                |                     |                           |
| Facility Improvements                     | SR 112 toll system conversion from the existing toll collection system to an Open Road Tolling (ORT) system.                                                                                                                          | 2013                           | Project Development | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Construction        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Design/Build        | \$2,814                   |
| 10017                                     | SR 836 Toll System Conversion                                                                                                                                                                                                         |                                |                     |                           |
| Facility Improvements                     | SR 836 toll system conversion from the existing toll collection system to an Open Road Tolling (ORT) system.                                                                                                                          | 2014                           | Project Development | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Construction        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Design/Build        | \$7,794                   |
| 10018                                     | Systemwide Open Road Tolling Hardware/Software Development                                                                                                                                                                            |                                |                     |                           |
| Facility Improvements                     | Development of systemwide hardware and software and enhancements to the violation enforcement system to accommodate requirements from Open Road Tolling.                                                                              | 2011                           | Project Development | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Construction        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Design/Build        | \$2,745                   |
| 10019                                     | Systemwide Implementation of Dynamic Message Signs (DMS)                                                                                                                                                                              |                                |                     |                           |
| Facility Improvements                     | Procurement and installation of dynamic message signs (DMS) at specific locations throughout the MDX System to provide travelers information on traffic conditions.                                                                   | 2013                           | Project Development | \$56                      |
|                                           |                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Construction        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Design/Build        | \$8,530                   |
| 10020                                     | ITS Master Plan                                                                                                                                                                                                                       |                                |                     |                           |
| Facility Improvements                     | Development/update of ITS Master Plan to identify future use of technology, benefits of ITS applications for operational improvements, perform local and regional ITS system analysis and prepare an interagency communications plan. | 2011                           | Project Development | \$185                     |
|                                           |                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Construction        | \$0                       |
|                                           |                                                                                                                                                                                                                                       |                                | Design/Build        | \$0                       |
| TRANSPORTATION IMPROVEMENT PROGRAM TOTALS |                                                                                                                                                                                                                                       |                                |                     | \$443,244                 |

**Table 3-2**  
**FY 2011-2015 Five-Year Work Program – Project Summaries**  
**Capital Improvement Program**

| Project Number                     | Project Name                                                                                                                                                                                                                                          | Estimated In Service Date (FY) | Phase               | Project Cost FY 2011-1015 |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|---------------------------|
|                                    | Description                                                                                                                                                                                                                                           |                                |                     |                           |
| 40025                              | Integrated Financial Contract Management System                                                                                                                                                                                                       |                                |                     |                           |
| Facility Improvements              | Procurement and implementation of an Integrated Financial Contract Management System.                                                                                                                                                                 | 2012                           | Project Development | \$45                      |
|                                    |                                                                                                                                                                                                                                                       |                                | Final               | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Construction        | \$2,692                   |
|                                    |                                                                                                                                                                                                                                                       |                                | Design/Build        | \$0                       |
| 40027                              | Systemwide Safety Improvements                                                                                                                                                                                                                        |                                |                     |                           |
| Facility Improvements              | Safety improvements including those resulting from and recommended through the MDX systemwide safety studies.                                                                                                                                         | 2011                           | Project Development | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Construction        | \$1,670                   |
|                                    |                                                                                                                                                                                                                                                       |                                | Design/Build        | \$0                       |
| 40028                              | Roadway Signing Improvements                                                                                                                                                                                                                          |                                |                     |                           |
| Facility Improvements              | Systemwide replacement of speed limit and ramp speed signing to comply with MUTCD. Replacement of non-reflective and deteriorated roadway signs on the SR-112 and SR-836 corridors.                                                                   | 2011                           | Project Development | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Construction        | \$169                     |
|                                    |                                                                                                                                                                                                                                                       |                                | Design/Build        | \$0                       |
| 40029                              | Systemwide Landscaping Improvements                                                                                                                                                                                                                   |                                |                     |                           |
| Facility Improvements              | Implementation of landscaping improvements at various locations throughout the MDX system. Focus will be improvements to highly visual interchange areas as prioritized through coordination with state and county agencies and local municipalities. | 2012                           | Project Development | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Construction        | \$476                     |
|                                    |                                                                                                                                                                                                                                                       |                                | Design/Build        | \$0                       |
| 40035                              | Steel Bridge / Structure Painting and Repairs                                                                                                                                                                                                         |                                |                     |                           |
| Facility Improvements              | Steel structures repairs and steel girders painting on bridges along SR 836, SR 874, SR 878 and SR 112.                                                                                                                                               | 2012                           | Project Development | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Construction        | \$3,947                   |
|                                    |                                                                                                                                                                                                                                                       |                                | Design/Build        | \$0                       |
| 40036                              | Concrete Coating for SR 924 Bridges and Systemwide Barrier Walls                                                                                                                                                                                      |                                |                     |                           |
| Facility Improvements              | Concrete coating of bridges on SR 924 and retaining, sound and barrier walls systemwide.                                                                                                                                                              | 2012                           | Project Development | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Construction        | \$2,001                   |
|                                    |                                                                                                                                                                                                                                                       |                                | Design/Build        | \$0                       |
| 40037                              | Improvements to the SR 836 Bridge over the Miami River                                                                                                                                                                                                |                                |                     |                           |
| Facility Improvements              | Replacement of bridge fender system, lighting and access ladder to protect bridge piers from vessel impacts.                                                                                                                                          | 2011                           | Project Development | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Final Design        | \$57                      |
|                                    |                                                                                                                                                                                                                                                       |                                | Construction        | \$3,877                   |
|                                    |                                                                                                                                                                                                                                                       |                                | Design/Build        | \$0                       |
| 40038                              | MDX Headquarters Improvements                                                                                                                                                                                                                         |                                |                     |                           |
| Facility Improvements              | MDX Headquarters facility upgrades to include interior modifications and improvements, structural modifications and minor parking lot modifications.                                                                                                  | 2011                           | Project Development | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Construction        | \$267                     |
|                                    |                                                                                                                                                                                                                                                       |                                | Design/Build        | \$0                       |
| 40039                              | Systemwide Mile Marker Furnishing & Installation                                                                                                                                                                                                      |                                |                     |                           |
| Facility Improvements              | Systemwide mile markers retrofit in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) standard.                                                                                                                                   | 2011                           | Project Development | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Final Design        | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Construction        | \$168                     |
|                                    |                                                                                                                                                                                                                                                       |                                | Design/Build        | \$0                       |
| 40040                              | Systemwide Landscaping Improvements (Phase II)                                                                                                                                                                                                        |                                |                     |                           |
| Facility Improvements              | Implementation of landscape systemwide on specific segments sytemwide.                                                                                                                                                                                | 2013                           | Project Development | \$0                       |
|                                    |                                                                                                                                                                                                                                                       |                                | Final Design        | \$331                     |
|                                    |                                                                                                                                                                                                                                                       |                                | Construction        | \$3,754                   |
|                                    |                                                                                                                                                                                                                                                       |                                | Design/Build        | \$0                       |
| CAPITAL IMPROVEMENT PROGRAM TOTALS |                                                                                                                                                                                                                                                       |                                |                     | \$19,453                  |

**Table 3-2**  
**FY 2011-2015 Five-Year Work Program – Project Summaries**  
**Renewal and Replacement Program**

| Project Number                         | Project Name                                                                                                                                                                                                                                                    | Estimated In Service Date (FY) | Phase               | Project Cost FY 2011-1015 |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|---------------------------|
|                                        | Description                                                                                                                                                                                                                                                     |                                |                     |                           |
| 30020                                  | Systemwide Bridge Rehabilitation / Replacement Planning Study                                                                                                                                                                                                   |                                |                     |                           |
| Facility Improvements                  | Planning study of bridges systemwide to assess current conditions, identify and prioritize rehabilitation or replacement as part of the R&R program.                                                                                                            | 2011                           | Project Development | \$172                     |
|                                        |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Construction        | \$0                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| 30021                                  | Systemwide Pavement Rehabilitation                                                                                                                                                                                                                              |                                |                     |                           |
| Facility Improvements                  | Pavement rehabilitation on SR 836 & SR 924 to include pavement evaluation, identification and prioritization of repairs as part of the R&R program.                                                                                                             | 2012                           | Project Development | \$0                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$34                      |
|                                        |                                                                                                                                                                                                                                                                 |                                | Construction        | \$1,615                   |
|                                        |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| 30023                                  | Systemwide Fence Replacement                                                                                                                                                                                                                                    |                                |                     |                           |
| Facility Improvements                  | Systemwide fence replacement and upgrades including the replacement of 4' fencing and installation of fence for right-of-way outside of I/A fence line.                                                                                                         | 2011                           | Project Development | \$0                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Construction        | \$1,320                   |
|                                        |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| 30024                                  | Systemwide Facilities Upgrades                                                                                                                                                                                                                                  |                                |                     |                           |
| Facility Improvements                  | Systemwide facilities upgrade to include painting, HVAC upgrades and replacement of roofs, floor coverings and generators/tanks.                                                                                                                                | 2011                           | Project Development | \$0                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Construction        | \$1,517                   |
|                                        |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| 30026                                  | SR 836 Drainage Trough Replacement from NW 57th Ave. to I-95.                                                                                                                                                                                                   |                                |                     |                           |
| Facility Improvements                  | Drainage trough replacement at isolated locations along the SR 836 corridor from NW 57th Avenue to I-95.                                                                                                                                                        | 2011                           | Project Development | \$0                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$0                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Construction        | \$2,815                   |
|                                        |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| 30027                                  | SR 836 Milling, Resurfacing and Misc. Upgrades from NW 57 to I-95                                                                                                                                                                                               |                                |                     |                           |
| Facility Improvements                  | Perform milling and resurfacing along SR 836 mainline and ramps from NW 57th Avenue to I-95; provide pavement markings, perform sign inventory and upgrade to standards, and perform minor drainage work.                                                       | 2013                           | Project Development | \$54                      |
|                                        |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$171                     |
|                                        |                                                                                                                                                                                                                                                                 |                                | Construction        | \$2,055                   |
|                                        |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| 30028                                  | SR 836 Bridge Rehabilitation from NW 57 Ave. to I-95                                                                                                                                                                                                            |                                |                     |                           |
| Facility Improvements                  | Perform structural improvements to bridges along the SR 836 corridor from NW 57th Avenue to I-95.                                                                                                                                                               | 2012                           | Project Development | \$9                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$126                     |
|                                        |                                                                                                                                                                                                                                                                 |                                | Construction        | \$1,303                   |
|                                        |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| 30029                                  | SR 112 Bridge Rehabilitation from NW 21 Street to I-95                                                                                                                                                                                                          |                                |                     |                           |
| Facility Improvements                  | Perform structural improvements to bridges along the SR 112 corridor from NW 21st Street to I-95.                                                                                                                                                               | 2012                           | Project Development | \$0                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$106                     |
|                                        |                                                                                                                                                                                                                                                                 |                                | Construction        | \$3,361                   |
|                                        |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| 30030                                  | SR 112 Milling, Resurfacing and Misc. Upgrades from NW 21st Street to NW 27th Ave.                                                                                                                                                                              |                                |                     |                           |
| Facility Improvements                  | Perform milling and resurfacing along SR 112 mainline and ramps from NW 21st Street to NW 27th Avenue; provide pavement markings, perform sign inventory and upgrade to latest standards, upgrade lighting, perform minor drainage work and develop RRR Report. | 2013                           | Project Development | \$0                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$128                     |
|                                        |                                                                                                                                                                                                                                                                 |                                | Construction        | \$4,794                   |
|                                        |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| 30031                                  | SR 112 Milling, Resurfacing and Misc. Upgrades from NW 27 Ave. to 12th Avenue                                                                                                                                                                                   |                                |                     |                           |
| Facility Improvements                  | Perform milling and resurfacing along SR 112 mainline and ramps from NW 27th Avenue to 12th Avenue; provide pavement markings, perform sign inventory and upgrade to latest standards, upgrade lighting, perform minor drainage work and develop RRR Report.    | 2012                           | Project Development | \$0                       |
|                                        |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$179                     |
|                                        |                                                                                                                                                                                                                                                                 |                                | Construction        | \$3,515                   |
|                                        |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| 30032                                  | Systemwide Pavement Markings Rehabilitation (FY 2011 - 2012)                                                                                                                                                                                                    |                                |                     |                           |
| Facility Improvements                  | Systemwide improvements including installation and replacement of Roadway Pavement Markings (RPM), thermoplastic pavement markings, audible and vibratory pavement markings, rumble strips and high performance tape. Funding includes improvements required i  | 2012                           | Project Development | \$74                      |
|                                        |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$142                     |
|                                        |                                                                                                                                                                                                                                                                 |                                | Construction        | \$1,687                   |
|                                        |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| 30033                                  | Systemwide Pavement Markings Rehabilitation (FY 2013 - 2015)                                                                                                                                                                                                    |                                |                     |                           |
| Facility Improvements                  | Systemwide improvements including installation and replacement of Roadway Pavement Markings (RPM), thermoplastic pavement markings, audible and vibratory pavement markings, rumble strips and high performance tape. Funding includes improvements required i  | 2015                           | Project Development | \$42                      |
|                                        |                                                                                                                                                                                                                                                                 |                                | Final Design        | \$65                      |
|                                        |                                                                                                                                                                                                                                                                 |                                | Construction        | \$724                     |
|                                        |                                                                                                                                                                                                                                                                 |                                | Design/Build        | \$0                       |
| RENEWAL AND REPLACEMENT PROGRAM TOTALS |                                                                                                                                                                                                                                                                 |                                |                     | \$26,008                  |

### **3.1.1 Existing System Improvements**

The following projects are categorized as Existing System Improvements in the current Five-Year Work Program:

#### Projects 11209 & 83624 – SR 112 and SR 836 Infrastructure Modifications for Open Road Tolling

**(FY 2011 – 2015 Programmed Cost: \$28,379)**

This project provides for the removal of the existing Toll plazas, installation of gantries, shelters and signage, and reconstruction of the SR 112 and the SR 836 roadway to accommodate highway-speed vehicle traffic for the implementation of ORT. The anticipated conversion date for the SR 112 corridor and the SR 836 corridor is no later than the end of FY 2014.

#### Project 83608 – SR 826 / SR 836 Interchange Improvements

**(FY 2011 – 2015 Programmed Cost: \$115,345)**

MDX has partnered with FDOT for the right-of-way acquisition, design and construction of the mutually needed SR 826 / SR 836 Interchange Improvement. FDOT contracted the construction of this project in FY 2010 and completion is expected in FY 2015. MDX has contributed \$11 million towards the final design and will be contributing an additional \$196.5 million towards the construction. This project is of great significance as this interchange is the most congested in the County. This project is an example of MDX working together with its transportation partners in the delivery of significant improvements to mobility in the County.

#### Project 83611 – SR 836 / I-95 Interchange Environmental Assessment

**(FY 2011 – 2015 Programmed Cost: \$95)**

MDX partnered with FDOT by entering into a Joint Participation Agreement (JPA) for the development of an Environmental Assessment for the SR 836 project from NW 17<sup>th</sup> Avenue to I-95, in conjunction with the on-going FDOT I-395 Project Development and Environment (“PD&E”) study.



#### Project 83622 – SR 836 EB Auxiliary Lane

**(FY 2011 – 2015 Programmed Cost: \$8,604)**

This project is currently under construction. It provides for the addition of an eastbound auxiliary lane for the purpose of significantly improving operations on the SR 836 to complement the construction of the SR 826 / SR 836 Interchange by FDOT. The anticipated completion is in FY 2011.

#### Project 83625 – SR 836 Emergency Ramp

**(FY 2011 – 2015 Programmed Cost: \$3,790)**

This project entails the construction of an emergency access ramp from west of NW 107<sup>th</sup> Avenue extending 0.3 miles westbound to the SR 836 Extension. It provides for emergency vehicle access to the SR 836 Extension and it's scheduled to be completed in FY 2011.

#### Project 83627 – SR 836 Express Bus Service Study

**(FY 2011 – 2015 Programmed Cost: \$108)**

Studies of current conditions and needed improvements have begun for the potential development of express bus service along the SR 836 corridor to key destinations such as the MIA, Miami Intermodal Center, Downtown Miami and Miami Beach; including the identification of potential park-and-ride lots at selected locations in coordination with Miami-Dade Transit (MDT). The purpose of the project is to combine resources with MDT to increase ridership, thus resulting in less congested roads, safer and more reliable trips.

#### Project 83628 – SR 836 Auxiliary Lanes and Interchange Improvements

**(FY 2011 – 2015 Programmed Cost: \$10,098)**

The current Five-Year Work Program provides funding for the project development and final design of a SR 836 Eastbound Auxiliary lane from 42<sup>nd</sup> Avenue to 27<sup>th</sup> Avenue; SR 836 westbound additional lanes from 27<sup>th</sup> Avenue to 57<sup>th</sup> Avenue as well as improvements to the SR 836 / LeJeune Interchange and the SR 836 / 27<sup>th</sup> Avenue Interchange. This will provide continuity to the auxiliary lanes that currently merge back

into mainline traffic and improve operations in existing interchanges. The preliminary engineering has begun and final design is anticipated to begin in FY 2012 and last for a period of 2 years.

Project 83629 – SR 836 Interchange Modifications at 87<sup>th</sup> Avenue

**(FY 2011 – 2015 Programmed Cost: \$6,697)**

The current Five-Year Work Program provides funding for the project development and final design of the reconstruction of the SR 836 Mainline and NW 87<sup>th</sup> Avenue interchange to 500 feet west of NW 82<sup>nd</sup> Avenue. The preliminary engineering has begun and final design is anticipated to begin in FY 2011 and last for a period of 2 years. This improvement ties into MDX completed Project No. 83614 on the west and the joint FDOT/MDX SR 826 / SR 836 Interchange Improvement project currently under construction on the East and enhances operations on the SR 836 corridor.

Project 83630 – SR 836 and NW 14<sup>th</sup> Street Interchange Improvements

**(FY 2011 – 2015 Programmed Cost: \$816)**

This project provides a dedicated right-turn lane at NW 14<sup>th</sup> Street to northbound 10<sup>th</sup> Avenue. This improvement will allow emergency vehicles a more direct and safer path to the Ryder Trauma Center and other healthcare facilities in the area, as well as the reduction of traffic delays at this intersection, which tend to cause backups onto the SR 836 mainline. This project will be constructed in partnership with the University of Miami (UM) where UM will be conveying to MDX the right-of-way adjacent to the existing NW 14<sup>th</sup> Street ramp to allow for the expedited and most cost-effective completion of this project. Construction is anticipated to be completed in FY 2012.

Project 87404 – SR 874 / Killian Parkway Interchange

**(FY 2011 – 2015 Programmed Cost: \$24,829)**

The modification of the Killian Parkway Interchange, widening of the mainline from 4 to 6 lanes and removal of the existing Toll plaza to facilitate ORT on SR 874 is under construction and anticipated to be completed in FY 2012. This project significantly reduces the congestion and delays at the Killian Parkway interchange with SW 107<sup>th</sup>

Avenue by splitting the movements from Southbound SR 874 to westbound Killian Parkway, and southbound SR 874 to northbound SW 107<sup>th</sup> Avenue. MDX has held a series of public meetings with the affected community to present project alternatives, receive their input and to keep them informed of any changes in upcoming activities. Through this process, MDX has coordinated the provision and location of noise abatement walls within the project limits.

#### Project 87409 – SR 874 Mainline Reconstruction

**(FY 2011 – 2015 Programmed Cost: \$86,829)**

Anticipated future traffic increase in this area of SR 874 resulted in MDX incorporating this project into its Five-Year Work Program. The project provides for widening from 4 to 6 lanes and resurfacing of the SR 874 mainline from Kendall Drive to SR 826 and will significantly enhance the capacity of the SR 874 corridor to tie into the adjacent FDOT SR 826 / Bird Road Interchange improvement project (see Project No. 87411 below) to the north, scheduled to be completed by FDOT in FY 2013. This project also ties in to MDX Project No. 87404 on the South. The project is scheduled to be let for construction in FY 2011.

#### Project 87411 – SR 874 / SR 826 Interchange Improvements

**(FY 2011 – 2015 Programmed Cost: \$15,027)**

MDX has entered into a Joint Participation Agreement with FDOT to contribute monies towards the reconstruction of the SR 874 / SR 826 Interchange to facilitate the construction of MDX Project 87409. This is another example of MDX working together with its transportation partners in the delivery of significant improvements to mobility in Miami-Dade County.

#### Projects 87412, 87801 & 92405 - SR 874, SR 878, SR 924 Infrastructure Modifications for Open Road Tolling

**(FY 2011 – 2015 Programmed Cost: \$10,064)**

These projects are currently underway. A single contract was issued to a Design-Build firm to include the removal of existing Toll plaza (on SR 924), installation of gantries,

shelters and signage for all three roadways, and modification of the roadway (on SR 924) to accommodate highway-speed vehicle traffic for the implementation of ORT. Completion date for the SR 924, SR 874 and SR 878 corridor conversion is scheduled for early FY 2011.

### **3.1.2 System Expansion**

The following projects are categorized as System Expansions in the current Five-Year Work Program:

#### Project 11205 – Interconnector from MIA to SR 112

**(FY 2011 – 2015 Programmed Cost: \$48)**

This project includes the identification of improvements to LeJeune Road (SR 953), the Airport Expressway (SR 112) and the Airport Expressway interchange with US Route 27 and NW 36<sup>th</sup> Street (SR 948). The scope includes the development of a master plan for the future direct connection between the East-West Expressway (SR 836) and the Airport Expressway (SR 112) and final design plans completed in FY 2008 for improvements to adjacent collector-distributor roads to be constructed by FDOT. All identified right-of-way has been acquired from willing sellers between NW 25<sup>th</sup> Street and the Airport Expressway (SR 112) at NW 27<sup>th</sup> Avenue in coordination with MDT. MDX continues to coordinate with MDT and FDOT to ensure that the envelope for the ultimate SR 112 Interconnector is preserved until such time as MDX can fund its construction.

#### Project 11211 – Central Boulevard Reconstruction

**(FY 2011 – 2015 Programmed Cost: \$83,722)**

Central Boulevard is the primary vehicular access roadway connecting MIA to SR 836 and SR 112, which are the most heavily traveled roadways on the System and are part of the Florida Strategic Intermodal System. MDX has partnered with Miami-Dade Aviation Department (MDAD) and FDOT to reconstruct Central Boulevard where MDX will act as a 50% local funding partner and grant recipient from FDOT to administer the project on behalf of MDAD. A contract has been awarded to a design-build firm and construction is scheduled to be completed in FY 2013.

Project 83618 – SR 836 Southwest Extension

**(FY 2011 – 2015 Programmed Cost: \$5,341)**

MDX is evaluating the feasibility of a new 15 mile expressway extension of SR 836 from NW 137<sup>th</sup> Avenue to SW 136<sup>th</sup> Street as part of the MDX Master Plan and the MPO's Long-Range Transportation Plan. Preliminary engineering is underway and a PD&E Study is anticipated to begin in FY 2011.

Project 87410 – SR 874 Ramp Connector

**(FY 2011 – 2015 Programmed Cost: \$534)**

The PD&E Study has begun for a new 1.2 mile ramp connection from SR 874 to SW 136<sup>th</sup> Street as part of the MDX Master Plan and the MPO's Long-Range Transportation Plan.

Project 92404 –SR 924 Extension West to the Homestead Extension of the Florida's Turnpike

**(FY 2011 – 2015 Programmed Cost: \$1,794)**

The PD&E Study has begun for a new 2.3 mile expressway extension of SR 924 to Florida's Turnpike in the vicinity of Okeechobee Road as part of the MDX Master Plan and the MPO's Long-Range Transportation Plan.

Project 92407 – SR 924 Extension East to I-95

**(FY 2011 – 2015 Programmed Cost: \$2,196)**

The PD&E Study has begun for a new 3.1 mile expressway extension of SR 924 east to I-95 as part of the MDX Master Plan and the MPO's Long-Range Transportation Plan.

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### **3.1.3 Facility Improvements**

The following projects are categorized as Facility Improvements in the current Five-Year Work Program:

Project 10013, 10014, 10015, 10016, 10017 & 10018 – SR 878, SR 874, SR 112, SR 836 Hardware/Software Development and Installation for Full ORT Toll System Conversion (FY 2011 – 2015 Programmed Cost: \$14,879)

A single contract has been awarded to a System Integrator, ETCC, for the implementation of the In-lane and host system and the Account Management Traffic Enforcement System (AMTES) for the full conversion to ORT System-wide. The SR 924 corridor is scheduled to be converted in early FY 2011, the estimated live date for the SR 874 and SR 878 corridors is also early FY 2011; followed by SR 112 and SR 836 by no later than the end of FY 2014.

Project 10019 – Systemwide Implementation of Dynamic Message Signs (DMS) (FY 2011 – 2015 Programmed Cost: \$8,586)

As of FY 2010 MDX will have completed its implementation of Intelligent Transportation System (ITS) which includes communications systems, incident management and traffic surveillance equipment for SR 112, SR 924, SR 874 and SR 878 which is all linked to the SunGuide Transportation Management Center to help traffic operations on the System. This project provides for the installation of DMS Systemwide that will display live traffic condition information collected by the MDX ITS surveillance system thus improving operations throughout the System.

**(FY 2011 – 2015 Programmed Cost: \$185)**

The projects identified in the original MDX ITS Master Plan are nearing completion. Therefore this new plan will evaluate and update the existing ITS Master Plan and develop potential new projects related to the application of existing and new ITS technology to improve operations, information dissemination and mobility on the System.

#### Project 40025 – Integrated Financial Contract Management System

**(FY 2011 – 2015 Programmed Cost: \$2,737)**

This project provides for the procurement and implementation of an integrated financial contract management system to aid MDX management staff in the procurement and administration of construction and professional service contracts. Research for available software packages is currently underway.

#### Projects 40027 & 40028 – Miscellaneous Roadway Signing and Systemwide Safety Improvements

**(FY 2011 – 2015 Programmed Cost: \$1,839)**

In its commitment to safety MDX extended the existing scope under projects 40027 and 40028 to provide additional safety and signing improvements. Project 40027 provides for additional guardrail installation at identified locations, westbound SR 836 on-ramp improvements at NW 45<sup>th</sup> Street, and reconstruction of SR 112 westbound and eastbound on and off ramps from and to NW 27<sup>th</sup> Avenue, as well as additional safety improvements identified through MDX's safety review program. These improvements require little investment and provide significant operational and safety benefits. In making the MDX name and mission more visible to the community, project 40028 provides for replacement of speed limit, ramp speed signs, and non-reflecting and deteriorated roadway signs at various locations as well as the installation of System-wide signing at exit ramps. All scope under these projects is anticipated to be completed in FY 2012.

#### Projects 40029 & 40040 – Systemwide Landscaping Improvements (Phase I & II)

**(FY 2011 – 2015 Programmed Cost: \$4,561)**

Another initiative aimed to further market MDX's commitment to community improvement is the Systemwide landscaping improvements proposed under projects 40029 and 40040. MDX has programmed \$4.4 million in its current Five-Year Work Program to implement landscaping improvements concurrently with new completed projects throughout the System. The improvements will portray a landscaping scheme representative of the agency and the MDX Enhancements Manual.

Projects 40035 & 40036 – Bridges and Barrier Walls Coating/Painting and Repairs

**(FY 2011 – 2015 Programmed Cost: \$5,948)**

To support MDX's commitment to preserve its system in good condition, project 40035 provides for the steel structure repairs and steel girder painting on bridges at specified locations; while project 40036 provides for the coating of concrete bridges and barrier walls systemwide. All scope under these projects is anticipated to be completed in FY 2012.

Project 40037 – Improvements to the SR 836 Bridge over the Miami River

**(FY 2011 – 2015 Programmed Cost: \$3,934)**

This project provides for the development, final design and replacement cost of the fender system, lighting and access ladder of the bridge over the Miami River to protect its piers from vessel impact. The improvements are anticipated to be completed in FY 2011.

Project 40038 – MDX Headquarters Improvements

**(FY 2011 – 2015 Programmed Cost: \$267)**

This project includes upgrades to the MDX Headquarter building including interior improvements, structural modifications and minor parking lot modifications needed to accommodate staffing requirements and additional parking at the adjacent hotel parking garage. Improvements are expected to be completed in FY 2011.

Project 40039 – Systemwide Mile Marker Furnishing & Installation

**(FY 2011 – 2015 Programmed Cost: \$168)**

This project provides for the replacement of existing reference markers with panels meeting recently updated Manual on Uniform Traffic Control Devices (MUTCD) criteria. This project is expected to be completed in FY 2011.

Project 30020 – Systemwide Bridge Rehabilitation / Replacement Planning Study

**(FY 2011 – 2015 Programmed Cost: \$172)**

Study to assess MDX bridge conditions System-wide is substantially complete and has identified and prioritized rehabilitation and replacement of assets which have been incorporated into the Five-Year Work Program such as projects 30028, 30029 described below; included into the Renewal and Replacement Program; or issued to the Asset



Maintenance Contractor. A custom-made database was produced under this project to allow MDX to track the life cycle of bridges and bridge components and assess their associated replacement costs. Study and recommendations will be completed in FY 2011.

Project 30021 – Systemwide Pavement Rehabilitation

**(FY 2011 – 2015 Programmed Cost: \$1,649)**

This project includes the pavement rehabilitation of segments within the SR 836 and SR 924 corridors as identified by the Annual Inspection Report and completed in FY 2010. It also includes the repair of concrete pavement on the East end of the SR 836 corridor to be completed in FY 2011.

Project 30023 – Systemwide Fence Replacement

**(FY 2011 – 2015 Programmed Cost: \$1,320)**

This project entails the replacement and upgrade of fencing along MDX's right-of-way. Construction is underway and it is anticipated to be completed in FY 2011.

Project 30024 – Systemwide Facilities Upgrades

**(FY 2011 – 2015 Programmed Cost: \$1,517)**

The scope of this project was expanded to include additional facility upgrades identified during the Annual Inspection. These include, but are not limited to painting, and roof, HVAC, floor covering, generator and tank replacement at the various MDX Toll administration facilities. The work is expected to be completed in FY 2011.

Project 30026 – SR 836 Drainage Trough Repair

**(FY 2011 – 2015 Programmed Cost: \$2,815)**

This project provides for the replacement of drainage troughs at various locations along the SR 836 corridor from NW 57<sup>th</sup> Avenue to I-95 resulting from a comprehensive engineering review of existing bridge infrastructure needs (30-year forecast). It is scheduled for completion in FY 2011.

Project 30027 – SR 836 Milling, Resurfacing and Miscellaneous Upgrades

**(FY 2011 – 2015 Programmed Cost: \$2,280)**

The scope of this project includes milling and resurfacing along the SR 836 mainline and ramps from NW 57<sup>th</sup> Avenue to I-95, the provision of pavement markings, performance of sign inventory and upgrade to standard as well as minor drainage work resulting from a comprehensive engineering review of existing system roadway and bridge infrastructure needs (30-year forecast). It is scheduled to start in FY 2012 for a duration of 2 years.

Project 30028 & 30029 – SR 836 and SR 112 Bridge Rehabilitation

**(FY 2011 – 2015 Programmed Cost: \$4,906)**

These projects provide for the structural improvements to bridges along the SR 836 corridor from NW 57<sup>th</sup> Avenue to I-95; and along the SR 112 corridor from NW 21<sup>st</sup> Street to I-95 as a result of the bridge assessment study performed under MDX project 30020. Both projects are currently underway with an estimated completion date of FY 2012.

Projects 30030 & 30031 – SR 112 Milling, Resurfacing and Miscellaneous Upgrades.

**(FY 2011 – 2015 Programmed Cost: \$8,616)**

These projects provide for work on SR 112; including milling and resurfacing along the mainline and ramps from NW 21<sup>st</sup> Street to NW 27<sup>th</sup> Avenue and NW 27<sup>th</sup> Avenue to 12<sup>th</sup> Avenue, the provision of pavement markings, performance of signs and lighting inventory and upgrade to standard, minor drainage work as well as preparation of a Resurfacing, Restoration and Rehabilitation (RRR) report. These improvements resulted from a comprehensive engineering review of existing System roadway and bridge infrastructure needs. The segment from NW 21<sup>st</sup> Street to NW 27<sup>th</sup> Avenue is scheduled to be completed in FY 2013 while the segment from NW 27<sup>th</sup> Avenue to 12<sup>th</sup> Avenue is scheduled to be completed in FY 2012.

### Projects 30032 & 30033 – Systemwide Pavement Marking Rehabilitation

**(FY 2011 – 2015 Programmed Cost: \$2,734)**

These projects provide for System-wide improvements including installation and replacement of Roadway Pavement Markings (RPM), thermoplastic pavement markings, audible and vibratory pavement markings, rumble strips and high performance tape as identified in the comprehensive engineering review of existing System roadway and bridge infrastructure needs (30-year forecast). Project 30032 addresses the needs for FY 2011 and FY 2012; while project 30033 will address the needs for FY 2013 through FY 2015.

### **3.1.4 New Expressways**

The following projects are categorized as New Expressways in the current Five-Year Work Program:

#### Project 20001 – Connect 4 Xpress

**(FY 2011 – 2015 Programmed Cost: \$10,099)**

This project provides for a new 9.7 mile expressway connecting SR 112, SR 836, SR 924 and SR 826, the Palmetto Expressway, including system interchanges with SR 112 and SR 924 and potential service interchanges with NW 54<sup>th</sup> Street, NW 79<sup>th</sup> Street and NW 103<sup>rd</sup> Street with connectors to NW 37<sup>th</sup> Avenue. A PD&E Study is anticipated to begin in FY 2011. The project is in the MDX Master Plan and the MPO LRTP.

#### Project 20002 – Systemwide Planning

**(FY 2011 – 2015 Programmed Cost: \$94)**

This project funds the development of miscellaneous planning studies System-wide for the purpose of identifying potential new projects to be included in the MDX Master Plan and future work programs. Some of the studies that are underway include the SR 836 Airport/Seaport Managed Lanes, the US-1 Managed Lanes from Kendall to I-95 and the conversion of a portion of US-27 Okeechobee Road to a limited access facility. MDX continually evaluates opportunities to improve mobility and the overall quality of life throughout the County.

Project 20003 – U.S. 1 Express Lanes.

**(FY 2011 – 2015 Programmed Cost: \$5,084)**

This project includes funding for the preparation of a PD&E study to convert the existing Busway along U.S. 1 into a Managed Lane facility by constructing grade separations at key cross roads thus eliminating the need for traffic to stop at main intersections. This project is part of the MDX Master Plan and the MPO Long Range Transportation Plan. It is anticipated that the PD&E will begin in FY 2011 and will evaluate a 20 mile segment from SW 344 Street to SW 88<sup>th</sup> Street.

Table 3-3 contains a total of the projected cash expenditures, expressed in thousands, for each individual category for each of the Fiscal Years encompassed by the Five-Year Work Program. These figures are then totaled for each category and each Fiscal Year.

**Table 3-3**  
**FY 2011-2015 Five-Year Work Program Category Breakdown by Fiscal Year**

| Category                     | Project Cost (\$000s) <sup>(1)</sup> |           |           |           |           | (\$000s)<br><br>Total     |
|------------------------------|--------------------------------------|-----------|-----------|-----------|-----------|---------------------------|
|                              | Fiscal Year                          |           |           |           |           |                           |
|                              | 2011                                 | 2012      | 2013      | 2014      | 2015      |                           |
| Existing System Improvements | \$112,946                            | \$101,523 | \$ 38,932 | \$ 32,213 | \$ 25,069 | \$310,683                 |
| System Expansion Projects    | 29,245                               | 38,788    | 25,049    | 554       | -         | 93,636                    |
| Facilities Improvements      | 36,703                               | 20,426    | 8,720     | 3,063     | 199       | 69,111                    |
| New Expressways              | 3,805                                | 6,539     | 3,965     | 967       | -         | 15,276                    |
| Contingency Reserve          | 5,400                                |           |           |           |           | 5,400                     |
| Totals                       | \$188,099                            | \$167,276 | \$ 76,666 | \$ 36,797 | \$ 25,268 | \$ 494,106 <sup>(2)</sup> |

<sup>(1)</sup> These figures represent future costs thus include escalation.

<sup>(2)</sup> Includes R&R Project Costs. See Table 3-1.

### **3.2 CAPITAL EXPENDITURES AND REQUIREMENTS**

The estimated cost for the current Five-Year Work Program projects is \$494.1 million. This estimate includes funds required for project development, PD&E, final design, right-

of-way acquisition, construction and contingency. Capital and Renewal and Replacement requirements for the current Five-Year Work Program projects by category were summarized in Table 3-1. Assumptions inherent in the development of project cost estimates include:

1. Project development
  - a. Includes costs for project definition at a level necessary to procure a final design consultant or design-build firm, depending on the procurement method utilized by MDX. This is estimated at 1.5% of the estimated construction bid cost.
2. Final design
  - a. Costs include project management costs of 2% of estimated construction bid cost. This 2% estimate is intended to provide for overall project management, interagency coordination, plans reviews and other administrative costs performed by MDX or their designated agent. Final design plans preparation is estimated at 8-10% of the estimated construction bid cost for conventional and design-build projects.
3. Construction cost includes direct construction cost burdened with the following additional cost elements:
  - a. Project Insurance / Bonds – 5% of Direct Construction Cost
  - b. Estimate Contingency – percentage of Direct Construction Cost + Insurance / Bonds:
    - Conceptual Estimate – 30 to 35%
    - 30% to 90% Plans – 10 to 20%
    - Final Plans – 5 to 10%
  - c. Post-Design Services – 1.6% of Estimated Bid Cost
  - d. Construction Engineering and Inspection (CE&I) – Percentage of Estimated Bid Cost:
    - Conventional projects – 9.5%
    - Design-build projects (Quality Control Engineer) – 6%
    - Design-build projects (CE&I Oversight) – 6%
    - CE&I Management – 2%

4. Right-Of-Way – based on an estimate of the current market. The GEC right-of-way manager in coordination with appraisers put together an estimate of costs.

Other miscellaneous allowances (e.g. permitting, public information, testing, utility relocations, incentive bonuses, stipends, etc.) are estimated as applicable by phase of each project.

Table 3-4 summarizes estimated costs by phase of all Capital and Renewal and Replacement projects included in the Five-Year Work Program for FY 2011-2015.

**Table 3-4**  
**FY 2011-2015 Five-Year Work Program – Phase Summary**

| <b>Work Program Phases</b> | <b>Projected Expenditures (\$000s)<sup>(1)</sup></b> |                  |                 |                 |                 |                  | <b>% of Total 5-Yr. WP</b> |
|----------------------------|------------------------------------------------------|------------------|-----------------|-----------------|-----------------|------------------|----------------------------|
|                            | <b>FY 2011</b>                                       | <b>FY 2012</b>   | <b>FY 2013</b>  | <b>FY 2014</b>  | <b>FY 2015</b>  | <b>Total</b>     |                            |
| Project Development        | \$ 11,320                                            | \$ 9,520         | \$ 5,332        | \$ 1,521        | \$ 0            | <b>\$ 27,693</b> | 6%                         |
| Final Design               | 5,355                                                | 12,258           | 1,615           | 40              | 3               | <b>\$ 19,271</b> | 4                          |
| Construction               | 117,573                                              | 100,446          | 39,907          | 32,742          | 25,265          | <b>\$315,933</b> | 64                         |
| Design Build               | 48,441                                               | 45,052           | 29,812          | 2,494           | 0               | <b>\$125,799</b> | 25                         |
| Right-Of-Way               | 10                                                   | 0                | 0               | 0               | 0               | <b>\$ 10</b>     | 0                          |
| Contingency Reserve        | 5,400                                                | 0                | 0               | 0               | 0               | 5,400            | 1                          |
| <b>Total</b>               | <b>\$188,099</b>                                     | <b>\$167,276</b> | <b>\$76,666</b> | <b>\$36,797</b> | <b>\$25,268</b> | <b>\$494,106</b> | <b>100%</b>                |

<sup>(1)</sup> These figures represent future costs thus include escalation.

### **3.3 PROJECT SCHEDULE**

Project schedules are based on historical time frames from previous projects and based on the General Engineering Consultant's knowledge of the implementation requirements at the time the Five-Year Work Program is developed. The schedules anticipate reasonable time for completion of the work activities such as project development, final design, right-of-way acquisition, design/build and construction. Table 3-5 includes master project schedules for all on-going projects in the current Five-Year Work Program.

Table 3-5

## FY 2011-2015 Five-Year Work Program – Project Schedules

## Transportation Improvement Program

## 11205 Interconnector from MIA to SR 112

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 11209 SR 112 Infrastructure Modifications for Open Road Tolling

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 11211 Central Boulevard Reconstruction

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 83608 SR 826 / SR 836 Interchange Improvements

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 83611 SR 836 / I-95 Interchange Environmental Assessment

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 83618 SR 836 Southwest Extension

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

Table 3-5

## FY 2011-2015 Five-Year Work Program – Project Schedules

## Transportation Improvement Program

## 83622 SR 836 EB Auxiliary Lane

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 83624 SR 836 Infrastructure Modifications for Open Road Tolling

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 83625 SR 836 Emergency Ramp

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 83627 SR 836 Express Bus Service

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 83628 SR 836 Auxiliary Lanes and Interchange Improvements

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 83629 SR 836 Interchange Modifications at 87th Avenue

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |



Table 3-5

### FY 2011-2015 Five-Year Work Program – Project Schedules

## Transportation Improvement Program

| 83630 SR 836 and NW 14th Street Interchange Improvement |  | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------------------------------------------|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Phase                                                   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Project Development                                     |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design                                            |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way                                            |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction                                            |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build                                            |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

| SR 874 / Killian Parkway Interchange |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
|--------------------------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Phase                                | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
| Project Development                  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design                         |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way                         |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction                         |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build                         |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

| S7409 SR 874 Mainline Reconstruction |  | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|--------------------------------------|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Phase                                |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Project Development                  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design                         |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way                         |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction                         |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build                         |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

| S7410 SR 874 Ramp Connector |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
|-----------------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Phase                       | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
| Project Development         |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design                |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way                |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction                |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build                |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

| S7411 SR 874 / SR 826 Interchange Improvements |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
|------------------------------------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Phase                                          | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
| Project Development                            |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design                                   |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way                                   |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction                                   |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build                                   |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

| SR 8742 SR 874 Infrastructure Modifications for Open Road Tolling |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
|-------------------------------------------------------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Phase                                                             | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
| Project Development                                               |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design                                                      |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way                                                      |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction                                                      |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build                                                      |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

Table 3-5

### FY 2011-2015 Five-Year Work Program – Project Schedules

## Transportation Improvement Program

87801 SR 878 Infrastructure Modifications for Open Road Tolling[illegible]

**92404 SR 924 Extension West to the Homestead Extension of the Florida's Turnpike**

| Phase               | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 |
|---------------------|---------|---------|---------|---------|---------|
| Project Development |         |         |         |         |         |
| Final Design        |         |         |         |         |         |
| Right-of-Way        |         |         |         |         |         |
| Construction        |         |         |         |         |         |
| Design/Build        |         |         |         |         |         |

**92405 SR 924 Infrastructure Modifications for Open Road Tolling**

[illegible]

**92407 SR 924 Extension East to I-95**

| Phase               | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 |
|---------------------|---------|---------|---------|---------|---------|
| Project Development |         |         |         |         |         |
| Final Design        |         |         |         |         |         |
| Right-of-Way        |         |         |         |         |         |
| Construction        |         |         |         |         |         |
| Design/Build        |         |         |         |         |         |

**20001**      **Connect 4 Xpress**

[illegible]

**20002      Systemwide Planning**

| Phase               | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 |
|---------------------|---------|---------|---------|---------|---------|
| Project Development |         |         |         |         |         |
| Final Design        |         |         |         |         |         |
| Right-of-Way        |         |         |         |         |         |
| Construction        |         |         |         |         |         |
| Design/Build        |         |         |         |         |         |

Table 3-5

## FY 2011-2015 Five-Year Work Program – Project Schedules

## Transportation Improvement Program

## 20003 U.S. 1 Express Lanes

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 10013 SR 924 Toll System Conversion

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 10014 SR 878 Toll System Conversion

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 10015 SR 874 Toll System Conversion

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 10016 SR 878 Toll System Conversion

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

## 10017 SR 836 Toll System Conversion

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**Table 3-5**  
**FY 2011-2015 Five-Year Work Program – Project Schedules**  
**Transportation Improvement Program**

**10018 Systemwide Open Road Tolling Hardware/Software Development**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**10019 Systemwide Implementation of Dynamic Message Signs (DMS)**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**10020 ITS Master Plan**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Right-of-Way        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**Legend:**

1. Project Development



2. Final Design



3. Right-of-Way



4. Construction



5. Design/Build



**Table 3-5**

**FY 2011-2015 Five-Year Work Program - Project Schedules  
Capital Improvement Program**

**40025 Integrated Financial Contract Management System**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**40027 Systemwide Safety Improvements**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**40028 Roadway Signing Improvements**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**40029 Systemwide Landscaping Improvements**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**40035 Steel Bridge / Structure Painting and Repairs**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**40036 Concrete Coating for SR 924 Bridges and Systemwide Barrier Walls**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**Table 3-5**  
**FY 2011-2015 Five-Year Work Program - Project Schedules**  
**Capital Improvement Program**

**40037 Improvements to the SR 836 Bridge over the Miami River**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**40038 MDX Headquarters Improvements**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**40039 Systemwide Mile Marker Furnishing & Installation**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**40040 Systemwide Landscaping Improvements**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**Legend:**

1. Project Development 
2. Final Design 
3. Right-of-Way 
4. Construction 
5. Design-Build 

**Table 3-5**  
**FY 2011-2015 Five-Year Work Program - Project Schedules**  
**Renewal & Replacement Program**

## 30020 Systemwide Bridge Rehabilitation / Replacement Planning Study

[illegible]

### **30021 Systemwide Pavement Rehabilitation**

[illegible]

### 30023 Systemwide Fence Replacement

[illegible]

### 30024 Systemwide Facilities Upgrades

[illegible]

**30026 SR 836 Drainage Trough Replacement from NW 57th Ave. to I-95**

[illegible]

**30027 SR 836 Milling, Resurfacing and Misc. Upgrades from 57th Ave. to I-95**

[illegible]

**Table 3-5**  
**FY 2011-2015 Five-Year Work Program - Project Schedules**  
**Renewal & Replacement Program**

[illegible][illegible][illegible][illegible]



**Table 3-5**  
**FY 2011-2015 Five-Year Work Program - Project Schedules**  
**Renewal & Replacement Program**

**30032 Systemwide Pavement Markings Rehabilitation (FY 2011-2012)**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**30033 Systemwide Pavement Markings Rehabilitation (FY 2013-2015)**

| Phase               | FY 2011 |  |  |  | FY 2012 |  |  |  | FY 2013 |  |  |  | FY 2014 |  |  |  | FY 2015 |  |  |  |
|---------------------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| Project Development |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Final Design        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Construction        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Design/Build        |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

**Legend:**

1. Project Development



2. Final Design



3. Right-of-Way



4. Construction



5. Design-Build



## **Section 4**

### **4. OPEN ROAD TOLLING**

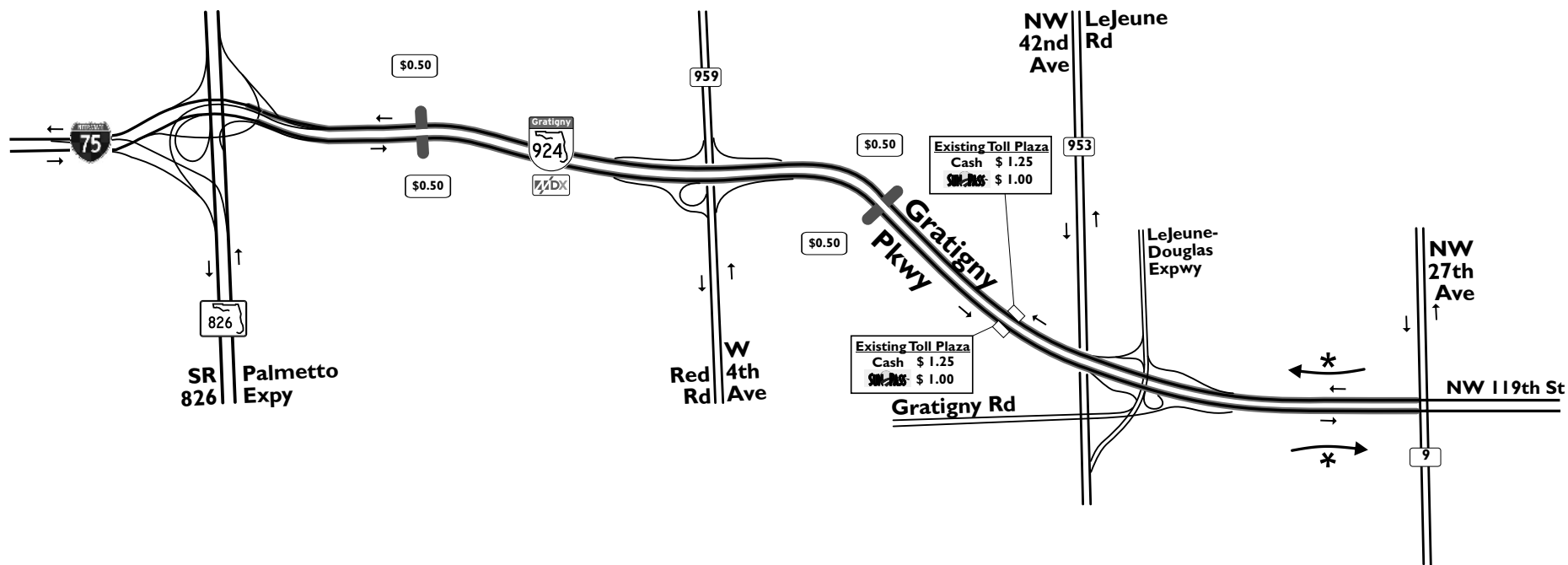
#### **4.1 INTRODUCTION**

Beginning in May 2006, with the MDX Board approval of an ORT Master Plan, MDX has undertaken a major initiative to convert the System to all ORT. ORT, which is also often referred to as All Electronic Tolling (AET), is a set of integrated technologies that allow for the payment of tolls electronically using toll equipment that is located on overhead gantries and embedded in the roadway. Simply put, ORT refers to a toll system without tollbooths, where traffic flows unimpeded at highway speeds. A detailed description of the planned ORT system and its operation is contained below in the following sections. The proposed ORT Gantry locations, along with the existing Toll plazas and SunPass® Gantry locations, are shown on Figures 4-1 through 4-5. Since 2006, MDX has moved forward with the planning and implementation of ORT in the following steps:

1. Developed technical specifications for ORT at 106 Toll lanes and 55 shoulders at a total of 38 toll locations in 2006 and 2007;
2. Issued Requests For Proposals (RFP) for the ORT system in 2008;
3. Selected and contracted with a vendor, ETCC in early 2009;
4. Completed design and development of the new ORT system in early 2010; and
5. The ORT system is planned to be tested and implemented on three of MDX's five roadways by the beginning of FY 2011, with all System roadways live and in ORT operation by no later than the end of FY 2014.

#### **4.2 OPEN ROAD TOLLING AND THE BENEFITS TO MDX**

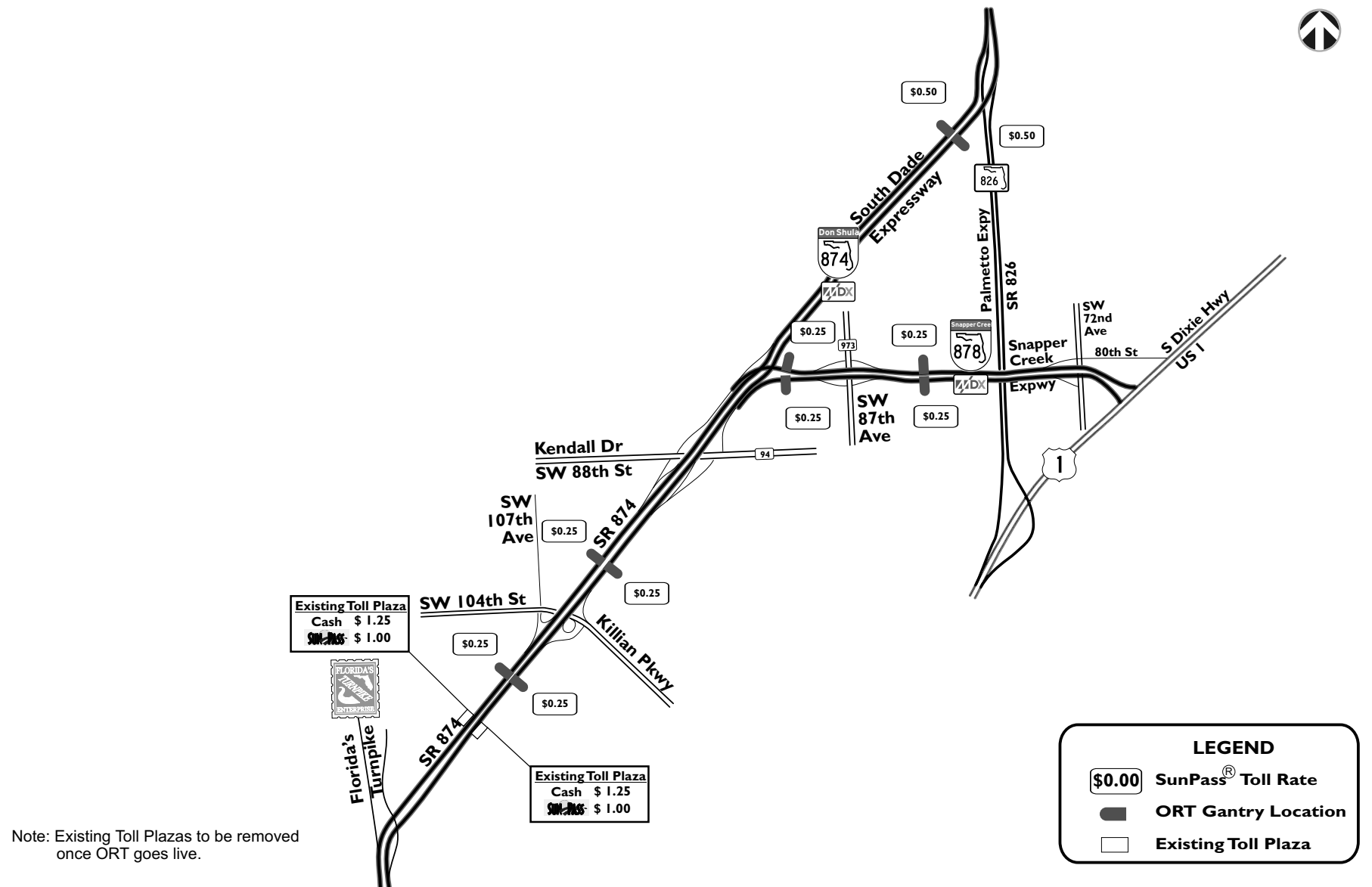
As stated above, ORT is a set of integrated technologies that allow for the payment of Tolls electronically, at highway speeds, using special equipment that is located on overhead gantries that span the entire roadway and is embedded in the roadway. The Tolling equipment located in the Toll lanes is connected to a powerful central computer

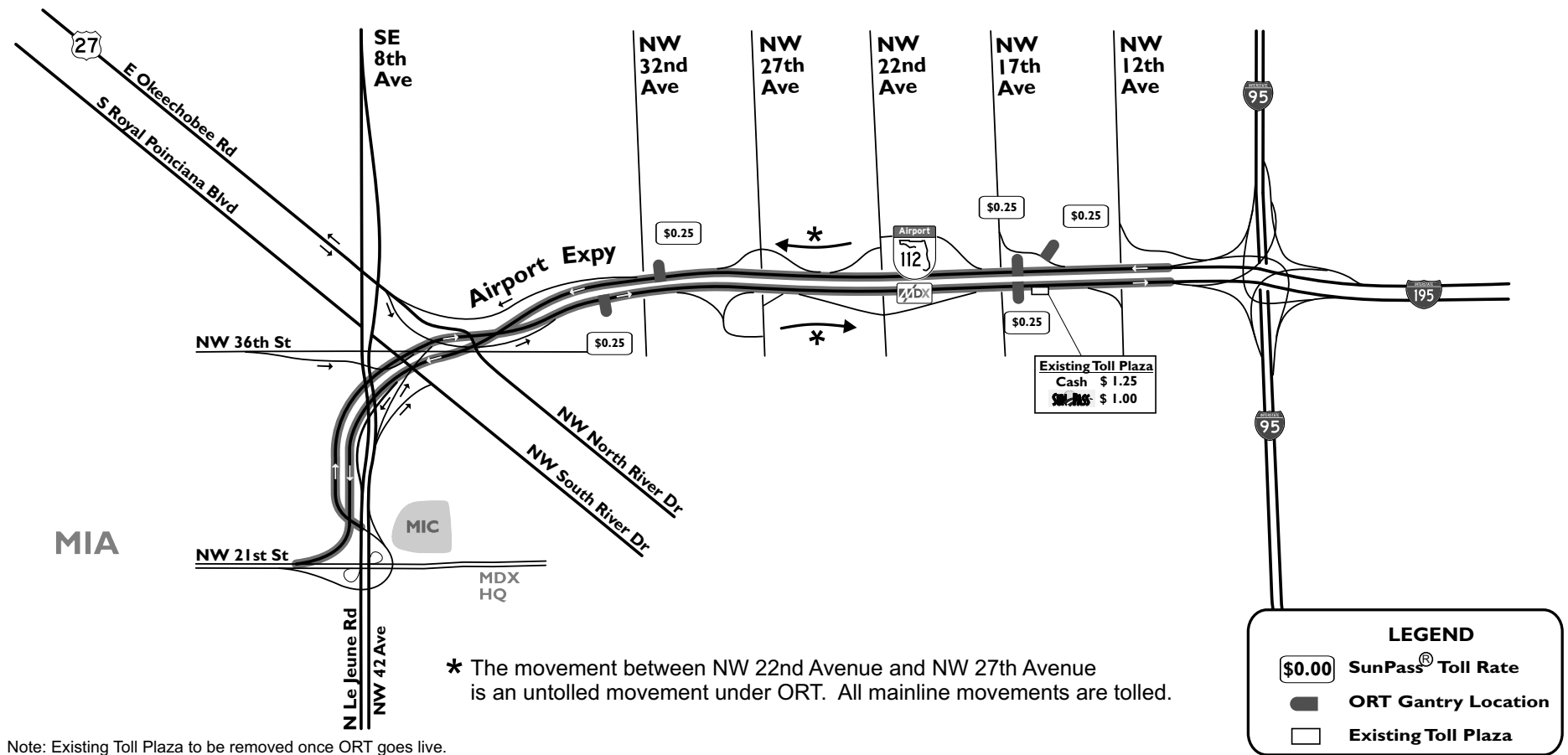


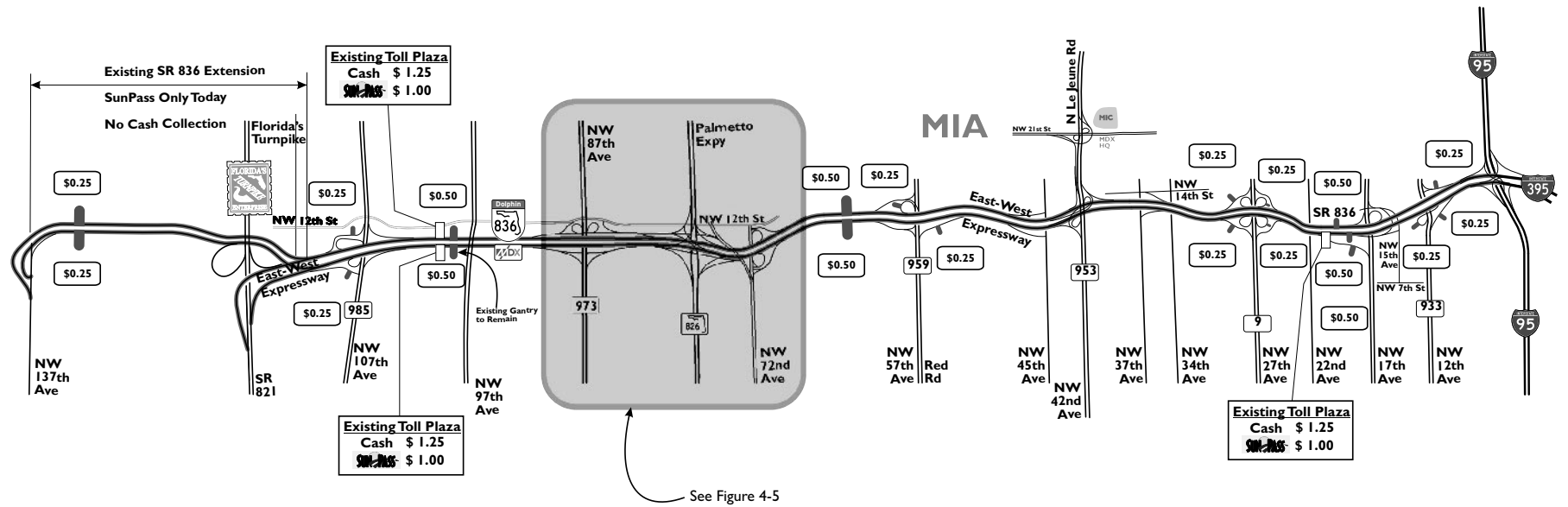
\* The movement between NW 27th Avenue and LeJeune-Douglas Road is an untolled movement under ORT. All other mainline movements are tolled.

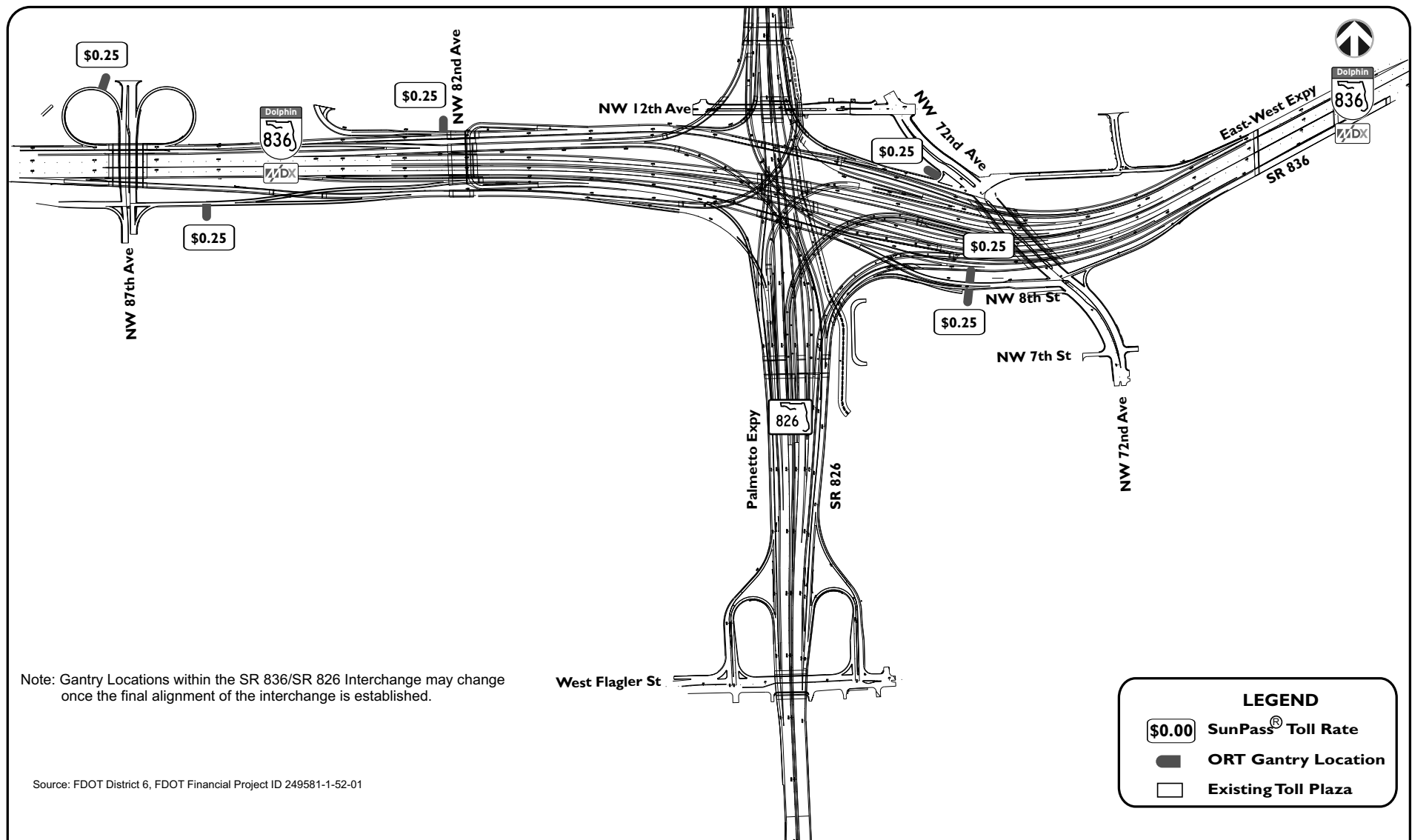
Note: Existing Toll Plazas to be removed once ORT goes live.

| LEGEND |                     |
|--------|---------------------|
|        | SunPass® Toll Rate  |
|        | ORT Gantry Location |
|        | Existing Toll Plaza |









system in a back office location where data recording, reconciliation, reporting, invoicing and auditing take place. Because of ORT equipment and ORT system redundancy and the high level of automated processing and reporting planned for the ORT system, human error and potential for mistakes and fraud are significantly reduced. Further, cost efficiencies are realized with the elimination of cash collection and handling as well as the elimination of Toll plazas; the expansion of automated payment options for customers; and the improved ability to identify and pursue violators.

Due to the limited number of Toll locations on the existing System, Tolls are currently collected from approximately 45 percent of the users, with the balance of the users driving on the System without paying. Adding traditional toll plazas is not feasible due to the problems of traffic congestion, tight right of way constraints and the prohibitive capital and operating costs associated with cash-based toll systems. ORT will allow for the placement of tolling equipment at regular intervals on the System and thus provide equity in tolling, charging motorists traveling on the System only for the segment of roadway driven. By spreading the costs to all users, MDX will be able to expedite and enhance its construction program and improve mobility while collecting tolls from its users in a much more equitable manner.

The benefits of ORT to MDX can be summarized as:

- **Safety** - With the use of ORT there will be no stopping or slowing at Toll points while customers make decisions or look for cash. Everyone will be traveling at the same speed and there will be no weaving or traffic conflicts as customers enter and leave the Tolling zone.
- **Better Use of Capacity** - With ORT, traffic moves at highway speeds thereby maximizing the use of roadway capacity.
- **More Equitable Distribution of Toll Payments** - ORT will allow for the equitable placement of Toll collection locations at regular points throughout all of the System. See Figures 4-1 through 4-5.
- **Reduced Operations and Maintenance Costs** - Elimination of Toll booths and associated labor and cash handling reduces operations costs. In addition,



maintenance costs are reduced as there is less equipment to maintain in the traffic lanes.

- **Enhanced System Controls and Reporting** – With the elimination of cash the ORT system is fully automated with redundancy and allows for improved reporting and reconciliation.
- **Customer Convenience** – No customer will need to slow down or stop to pay Tolls, travel time will be reduced and less gas will be used. In addition, with AET payment, payment options such as toll-by-plate video tolling, described further below, will be introduced.
- **Environment** – Because no customers are slowing down and stopping to pay Tolls, the amount of noise and auto emissions is reduced at the Tolling locations, which results in less air pollution and less traffic noise for nearby residents.

### **4.3 TOLL COLLECTION UNDER ORT**

#### **4.3.1 Implementation Schedule**

With the completion of the move to full ORT by the end of FY 2014, all tolls on MDX roadways will be collected electronically and cash payment in the toll lanes will be eliminated. The schedule for transition is as follows:

- Completion of pre-production testing of the new system: April 2010
- Conversion of the existing Toll Enforcement Center (TEC) to a new ETCC operated Account Management and Toll Enforcement Center (AMTEC): Early FY 2011
- ORT System for the Gratigny Parkway: Implemented June 7, 2010
- ORT System for the South Dade and Snapper Creek Expressways: Early FY 2011
- ORT System for the Airport Expressway: No later than the end of FY 2014
- ORT System for the East-West Expressway: No later than the end of FY 2014

#### **4.3.2 Toll Collection Payment Options Under ORT**

MDX's current Toll system is a mix of cash collection and electronic Toll collection using SunPass® in conventional and in ORT lanes. Over the last few years MDX has been able to significantly increase the proportion of customers who pay electronically with SunPass® through the addition of SunPass®/ORT lanes; marketing of the SunPass® option, and the introduction of an inexpensive new "Mini" transponder by Florida's Turnpike Enterprise (FTE), the agency that issues transponders and manages SunPass® accounts for MDX. At present (FY2010) the mix is approximately 77 percent SunPass® and 23 percent cash, with SunPass® penetration rates reaching 79percent during the peak period. MDX has implemented an aggressive program to increase the percentage of SunPass® usage. MDX has purchased and is distributing 11,000 SunPass® minis at a variety of community events. MDX has distributed over a million handouts, flyers and mailings, all of which encourage the use of SunPass® and provide information on where to obtain them. MDX has purchased a number of print, radio and television spots, all of which show pictures of SunPass® and have a call to action at the end to "Get Your SunPass® Now". Finally, the MDX Website continues to stress the importance of SunPass® usage. Under ORT, cash payments in the lanes will be eliminated and customers will have two electronic Toll payment options. These are payment by SunPass® and payment through Toll-by-Plate. Each option is explained in more detail as follows:

With the transition to full ORT, customers may continue to use their SunPass® transponders for Toll payment on the System. These transponders are obtained through FTE, which has initiated a rebate program which essentially makes them zero cost to the customer. Customers may purchase their SunPass® transponders from FTE for use on the MDX System. They may purchase either a low cost "Mini" sticker type transponder, which is semi-permanently affixed to the vehicle windshield, or the traditional, hard-cased Allegro transponder, which can be used on multiple vehicles registered under the customer's account. SunPass® will continue to be the least expensive Toll collection option for MDX to operate as the process for interoperability and Toll reconciliation with FTE is largely automated through the use of file transfers and will require intervention

primarily on an exception basis. This will also continue to be the least expensive Toll payment option for customers who, under the current system, pay a premium for cash payment of Tolls over SunPass®.

The second planned payment option, Toll-by-Plate (also known as video tolling) works by automatically capturing an image of a vehicle's license plate as the vehicle passes under a Toll gantry mounted with high-quality cameras. Images for any vehicle that does not have a transponder read at the Toll point will be saved and sent to the back office system. The Toll-by-Plate system will use Optical Character Recognition (OCR) in both the lane camera system and in the back office to automatically recognize the license plate number and then match that license plate number to the registered owner of the vehicle or to an existing customer account. These in-lane camera systems have been used in Toll lanes throughout the United States for years and have become highly effective in the capturing of images used for violation enforcement. Improvements in OCR over the last few years have allowed for more automated processing of these images, significantly reducing the need for human intervention and thus making Toll-by-Plate a cost effective payment option. In other words, the improved reliability of the Toll enforcement cameras and OCR have allowed for customers to be billed based on their license plates. For a discussion of how customers' license plates will be matched to Department of Motor Vehicles data bases see sections 4.5 MDX ORT System Design and 4.6 MDX ORT Operations below.

Customers who pay by Toll-by-Plate will be able to choose one of two account options: A pre-paid Toll-by-Plate account with FTE, which is similar to a transponder account set up for SunPass® which has a pre-paid balance, or a post-paid account in which customers will be billed on a monthly basis for their tolls on the System. MDX will charge a small premium or surcharge to customers for using the Toll-by-Plate option (currently planned at \$0.15 for two axle vehicles) in comparison to SunPass®. In addition, for those customers who choose to post-pay their tolls upon receipt of an invoice, an additional invoice fee will be charged by MDX to cover the administrative costs of the preparation

and mailing of invoices. Please see section 4.6 MDX ORT Operations for a discussion of how customers who do not pay their invoices will be handled.

#### **4.3.3 Payment Methods**

Customers will be able to pay their toll accounts by web, through the automated telephone system or through a customer service representative, either by phone or in-person at the Account Management Toll Enforcement Center (AMTEC). Payment methods will include debit card or credit card or check.

### **4.4 MDX ORT CONTRACT PROVISIONS**

#### **4.4.1 Contract Provisions for ORT**

As discussed above in the introduction to this ORT section, in September 2008 MDX issued an RFP for the design, development, installation, testing, operation and maintenance of the ORT system. This included all of the systems and equipment in the ORT lanes and the central computer system host; and the Customer Service Center (CSC) and Violations Processing Center (VPC) scope of work (including Toll-by-Plate) that would replace and expand the functionality in the current TEC. The process yielded extremely competitive proposals and ETCC was highest ranked and selected to provide the combined scope of work. ETCC has been a system integrator since 2000 and has successfully provided similar services for several agencies including the North Texas Tollway Authority and the Illinois State Toll Highway Authority.

The contracts were executed with ETCC in April 2009. The contracts include an implementation phase and an operations and maintenance phase. The operations and maintenance phase have a base contract period of three years with seven additional individual option years which can be implemented at MDX's sole discretion. The contract also provides for a base system (software) maintenance period of 10 years.

The scope of work and contracts are detailed and contain significant protections for MDX. These include requirements for a high level of redundancy; high performance

standards for both equipment and systems operations; performance of maintenance and the operation of the AMTEC, which incorporates the CSC/VPC operations. There are liquidated damages for failure to deliver the ORT system hardware and software within required time periods and for non-performance in both the operations and maintenance periods. In addition, MDX has rights to the ORT system software in the event that MDX terminates the contract with ETCC and wishes to operate or modify the ORT system itself or through a third party. This is a concession that has typically been difficult to obtain from vendors who wish to protect their software. It protects MDX from being perpetually tied to a single vendor until the system software reaches the end of its useful life and MDX initiates a complete replacement of the ETC system.

## **4.5 MDX ORT SYSTEM DESIGN**

### **4.5.1 In-Lane ORT System**

#### **4.5.1.1 General Description of the In-Lane ORT System**

The ORT in-lane system design includes 106 travel lanes at 38 Toll locations on the five System expressways. As shown below in Table 4-1, the ETC system also includes 55 shoulders that will include toll collection equipment to ensure that violators cannot avoid the Tolls by driving on the shoulders.

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**Table 4-1**  
**Planned ORT Toll Lanes and Shoulders**

| <b>Roadway</b>           | <b>Number of Lanes</b> | <b>Number of Shoulders</b> |
|--------------------------|------------------------|----------------------------|
| Gratigny Parkway         | 12                     | 8                          |
| South Dade Expressway    | 22                     | 12                         |
| Snapper Creek Expressway | 8                      | 8                          |
| Airport Expressway       | 13                     | 5                          |
| East-West Expressway     | 51                     | 22                         |
| <b>Total</b>             | <b>106</b>             | <b>55</b>                  |

#### **4.5.1.2 Key In-Lane System Components and Features**

The ORT in-lane system is made up of several redundant sub-systems that detect, classify and identify the vehicles as they cross the Tolling point; read the SunPass® transponders; capture and process vehicle images, and track and report all of the toll transactions to the ORT host and AMTES back-office systems for processing and reporting. ORT system performance requires a very high reliability and availability for all of these sub-systems individually and as whole, in addition to the redundancy requirements. In addition, all equipment mounted in the lanes is required to meet Florida State requirements for wind speeds of 150 miles per hour. Figure 4-6 provides a summary depiction of the ORT in-lane system. Each of the key sub-systems is further described in detail as follows:

- The zone controller is the heart of the ORT in-lane system. It communicates with all of the other sub-systems at that toll location and essentially acts as the controller for the specific toll location. It is comprised of two fully redundant computers operating in a hot standby mode; one serving as the primary and the other the secondary. In the event the primary zone controller fails the

secondary zone controller will take over the operations seamlessly with no impact to transaction processing. The zone controller communicates to the redundant Toll Zone Host (TZH) to transmit transactions and alarm messages. All data required by the zone controller in its normal operations (Transponder List, Toll Rate Schedule, etc.) is transmitted from the TZH, described further below.

- Automatic Vehicle Identification (AVI) system: The AVI system is comprised of AVI antennas installed on the gantry over both the center and stripe of each lane to ensure full coverage in the lane including those vehicles that straddle lanes. Each antenna communicates with an AVI reader located beside the roadway. There is one AVI reader controlling each antenna, thus providing a high level of redundancy in that if an AVI reader or antenna fails the adjacent AVI reader or antenna would provide sufficient coverage for that lane. Additionally, the AVI reader has the capability to “buffer” up to a million transponder reads in the event the communications to the zone controller are down. These transponder reads are then processed when communications are re-established so that transactions are not lost. The AVI system is the Encompass 6 TransCore product that is certified by FTE for use on Florida Toll Roads.
- Violation Enforcement System (VES) (Also referred to as the Toll-by-Plate camera system): VES is comprised of two cameras per lane: A high resolution License Plate Reader (LPR) camera used for Optical Character Recognition (OCR) and an overview camera that provides a full image of the vehicle to assist with manual review of images in the event of a customer dispute or a problem with the OCR read. Both of these cameras are gantry mounted. They are connected to a Data Processing Unit (DPU). There is a single DPU for each lane. This design ensures that failure of a camera does not affect the processing of images and the failure of a DPU only impacts an individual lane. The VES is provided by INEX, an experienced VES vendor.
- Automatic Vehicle Detection and Classification System (AVDCS): The AVDC system is composed of four detection loops and one axle counting loop

set embedded in the roadway. It is controlled by software running on the zone controller. The AVDCS triggers the cameras so they know when to take the image of the vehicle, classifies the vehicles and tracks the vehicle as it drives through the toll lane. The design incorporates redundant processing of the loop data by providing separate paths for the serial and discrete data so if the loop software fails the zone controller can continue to process the vehicles with discrete loop data. This AVDC equipment is IDRIS, which is used in most ORT installations nationwide.

- RITE Video Surveillance System (RVSS): Security and audit cameras are installed at all tolling locations to monitor the toll lanes. Audit cameras are installed on a pole downstream of the tolling location looking at traffic exiting the tolling zone, with one camera providing coverage for up to four toll lanes. These cameras are used to verify the presence and positions of vehicles, for example for use in testing or in the event of a problem in a toll lane. Security cameras also monitor the equipment shelters and enclosures. The video for these systems is saved for up to thirty days, and at any time authorized personnel can review the security and audit video from a remote location.
- Toll Zone Host (TZH): The ORT Toll System includes four TZHs, one for each roadway and one serving as the Master. The TZH acts as the conduit between the in-lane systems and the back office. Failure of a single TZH will have no impact on lane operations since besides the redundancy in the server configuration, there is also a redundant path to a second TZH at all times. OCR also takes place in the TZH.

In addition to the redundancy build into the hardware design, problem detection and reporting is a fundamental and integral part of the ORT software design. The health of each sub-system and the status of the zone controller are monitored by the System software and alarms are generated when failures are detected which are displayed and available at the ORT Host and to authorized system users through the MOMs system, described in further detail below. The design incorporates numerous conditions for the detection of unusual events resulting in alarms that trigger maintenance action. ETCC



has detailed performance requirements for responding to and addressing maintenance actions in the Contract with MDX.

#### 4.5.1.3 Equipment Shelters and Enclosures

In the main-line tolling locations all equipment is installed within equipment racks inside equipment shelters or in NEMA 4x enclosures. The ORT equipment located in the shelters and enclosures is on Uninterrupted Power Supply (UPS) and emergency generators are also provided in the event of prolonged power outage, such as may result from local hurricane activity. In the ramp tolling locations the equipment is installed in enclosures with UPS protection and mobile generators are provided as standby. The shelters and enclosures are monitored by security access cameras and card access is required for entry thus preventing unauthorized intrusion.

Figure 4-6

In-lane Systems – High Level System Layout

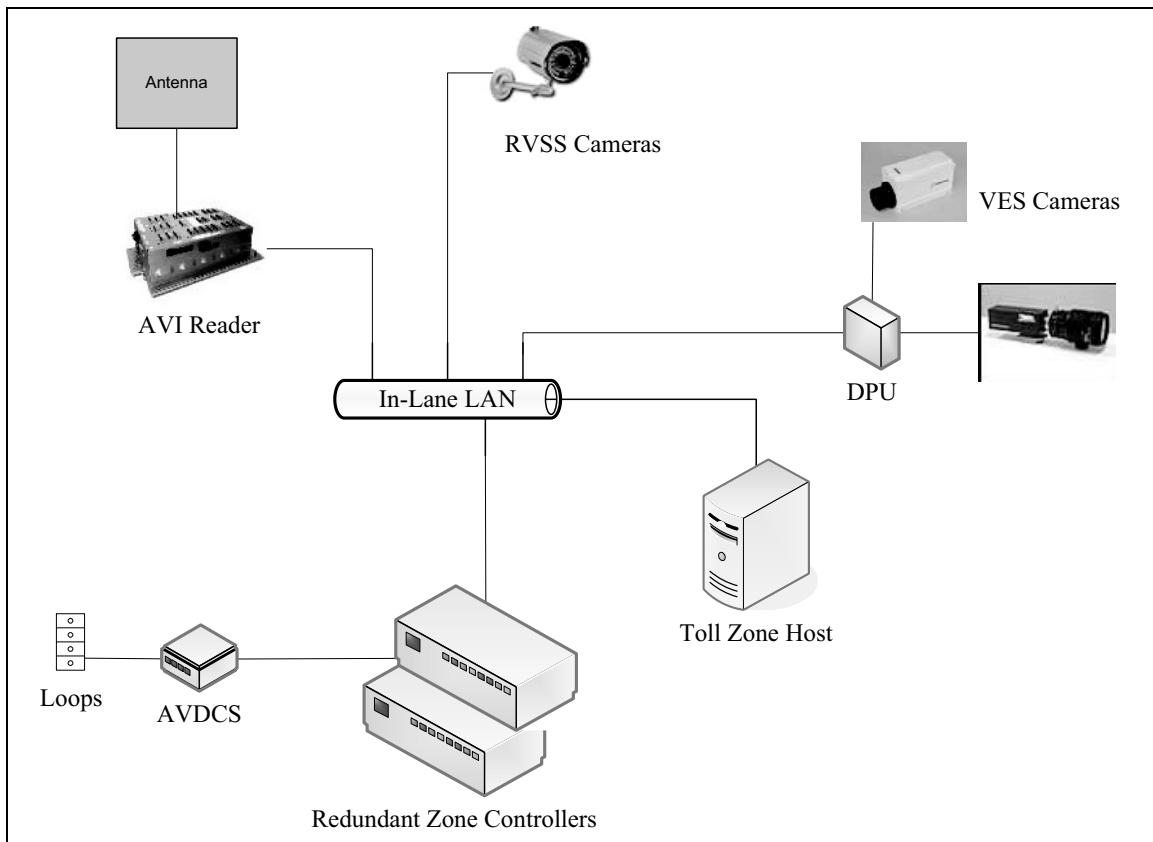
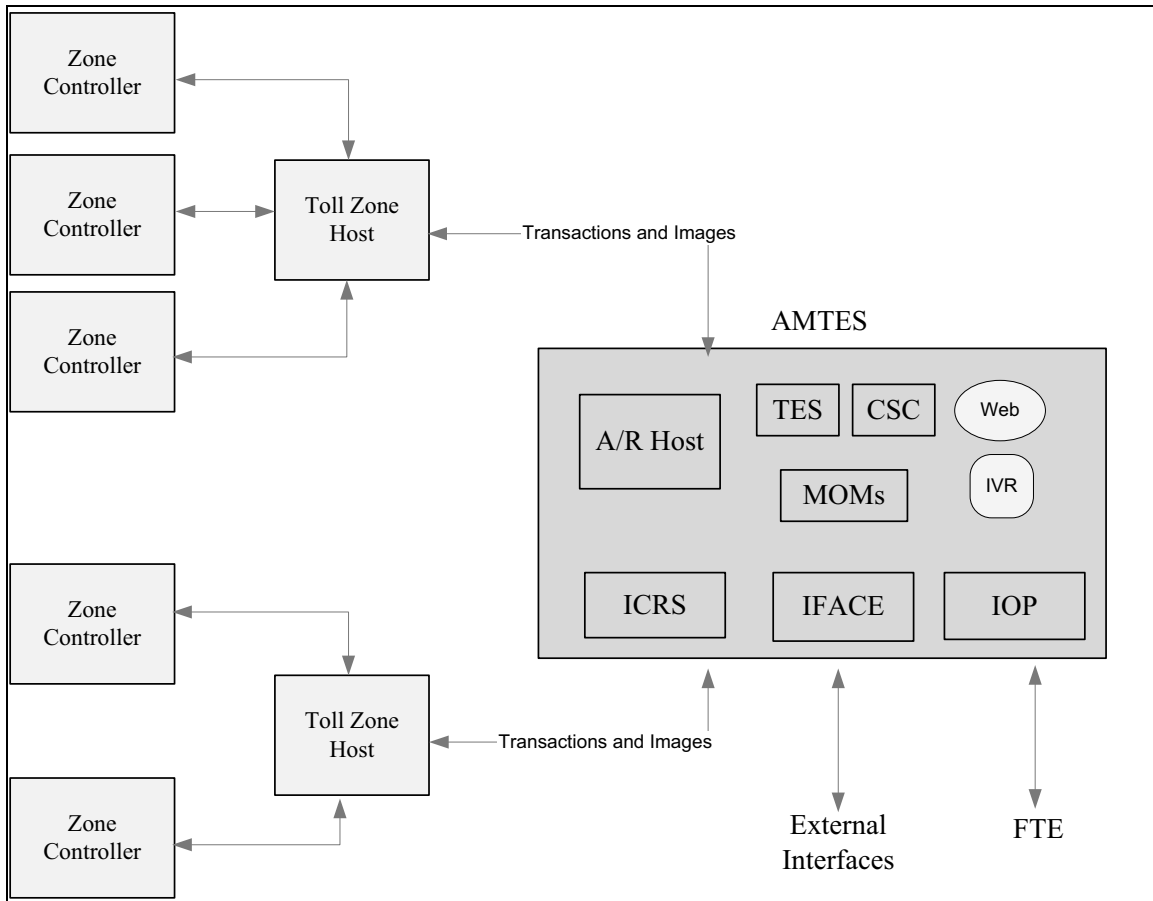


Figure 4-7

**High Level ORT System Design and Data Flow**



**4.5.1.4 General Description of Account Management (AMTES) and Toll Enforcement System Design**

The AMTES includes all of the customer service related and back office system functions and design. This includes customer account management; invoicing; handling of non-payments including the issuance of Toll Violation Notices (TVNs); and Uniform Traffic Citations (UTCs); system reporting and reconciliation and interfaces to external entities such as FTE, collections agencies, DHSMV and the county courts. Figure 4-7 provides a summary depiction of the AMTES and how transactions move from the lanes through the Toll Zone Host to the AMTES. System redundancy is incorporated in the AMTES system

in two ways. The first is a redundant system architecture where failure of a server or a database component will not degrade system operations. Further, a disaster recovery site is located remotely which under the contract, is an exact mirror image of the AMTES and would be switched over and fully operational within two days in the event of a disaster at the primary AMTES site in Miami.

#### **4.5.1.5 Key AMTES Components and Features**

The following is a summary description of the key AMTES design and functions as shown in Figure 4-7 above:

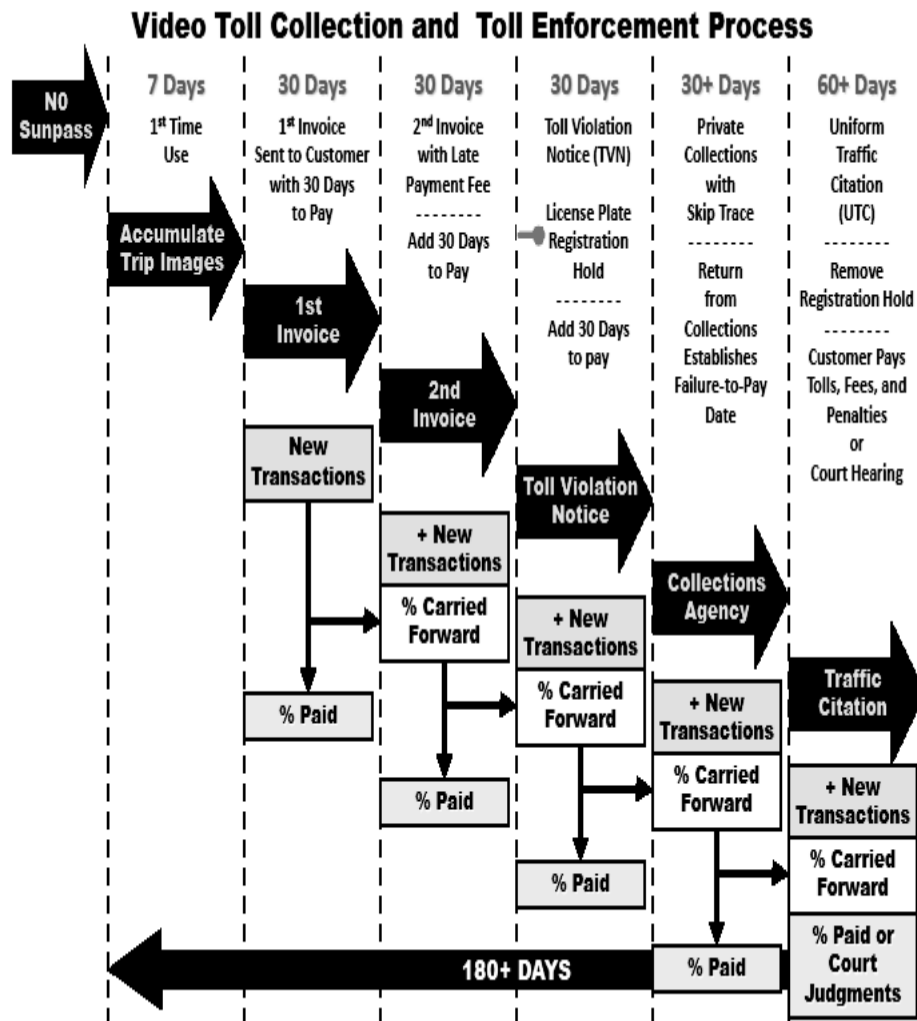
1. **Audit and Reconciliation Host:** The A/R Host is responsible for tracking each transaction from the time it reaches the AMTES from the Toll Zone Host through to closeout. As the transaction moves through the various sub-systems of the AMTES and eventually terminates, its status is continuously updated at the A/R Host. The A/R Host is the single source of reconciliation that helps MDX audit the system and reconcile receivables and revenues.
2. **Image Capture and Review System (ICRS):** The results of the OCR which is performed in the Toll Zone Host and the associated images are transmitted to the ICRS where vehicle signature matching (matching the vehicle information to an existing database) and image review are performed. License plate results that have a better than established confidence level are automatically transferred to the Toll Enforcement System (TES) for further processing. The balance of license plate results and images are manually reviewed with the license plate data verified through a double review. This three part verification (OCR and double review) ensures errors are minimized and confidence in the results of the license plate review is high. The resulting license plate data is sent to the TES for payment processing.
3. **Toll Enforcement System (TES):** The TES validates the license plate data against existing SunPass® and Video Toll Account (VTA) customer plates (also known as Toll-by-Plate Account). If a match is found the transaction is posted to the customer account; otherwise the TES transmits the plate data either to the DHSMV for FL plates or to a third party service specialized in obtaining out-of-

state plate registration information. This vehicle registration information is used to add the transaction to an existing Toll-by-Plate account or to create a new Toll-by-Plate account for invoicing. At various stages of the process the system provides the opportunity to correct plate data/addresses if registration information was not available or the address was deemed to be bad.

The TES tracks the escalation on each Toll-by-Plate account and generates the appropriate invoices at various escalation thresholds/triggers (Notice 1, Late Notice, Toll Evasion Notice (TVN) and Uniform Traffic Citation (UTC)). If no payment is received after issuing a TVN, a registration hold is placed on the license plate in accordance with Florida State Statute 320.03 and the customer data is sent to a third party collection agency. If the collections effort does not result in payment then the customer is issued a UTC, nonpayment of which will result in the court issuing a subpoena. Additional invoice fees and administrative fees are charged by MDX as the process escalates-the basis for these fees is to cover MDX's costs and not to impose a financial burden on the customer. Processes will be instituted at the TES to ensure the customer is given the opportunity to settle the outstanding balance and become a SunPass® or VTA customer. The dispute process at the TES will ensure customer disputes and concerns are addressed and resolved. The invoicing and toll enforcement process is summarized in the figure below:

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Figure 4-8: Invoicing and Toll Enforcement Process



4. Customer Service Center (CSC): Users of the MDX toll roads can establish Toll-by-Plate accounts at the CSC through the web-site or with a customer service representative at the AMTEC. As discussed above, the CSC also has the capability to set up and manage SunPass® accounts should MDX decide to become a Home Agency in the future. In that event, it is envisioned that most SunPass® customers will obtain the transponders from retail stores and set up the account with MDX in order to minimize the cost of handling and issuing transponders. The CSC provides customers the ability to manage their account,

- update their profile, modify replenishment methods and receive account statements. Toll-by-Pate customers are invoiced on a monthly cycle and the CSC processes the payments received by the third party lockbox processor.
5. Interactive Voice Response System (IVRS): The IVRS is an advanced telephone system that provides customers the ability to perform self-service or to contact the AMTEC staff. Self service functions include; accessing account information; making payments, and replenishing accounts. The IVRS provides the capability to monitor call center performance which is contractually required. Liquidated damages are in place in the contract with ETCC for IVRS performance below requirements.
  6. Website: The MDX website provides online access to customer accounts. Through the internet customers can set-up accounts, access their accounts to make payments, update their profile, modify account information, view account history and statements, and dispute their toll/invoice.
  7. Maintenance Online Management System (MOMS): Alarms generated by all sub-systems in the AMTES and ORT In-Lane are managed through the MOMS. Alarms are transmitted to the MOMS where a service ticket is generated. Based on the priority of the alarm a notification is automatically created and the maintenance technician is alerted. This notification occurs in near real time on critical problems. The MOMS provides the capability to track the status of the service ticket and record its closure. MOMS is also used to manage, maintain and track equipment toll system assets in addition to providing the ability to schedule preventive maintenance, generate various reports and schedule technicians. The MOMS is also used to generate reports to track ETCC's contractual maintenance requirements.
  8. Interoperable (IOP) Interface: This interface provides MDX the ability to transmit SunPass® transactions belonging to other Florida interoperable agencies; initially this will be used with FTE only. Transponder lists are exchanged through this interface and it is also used to verify license plates against FTE accounts.
  9. IFACE: The IFACE module is used by the AMTES to interface with all external parties for the exchange of data required by the AMTES. For each interface

IFACE manages the creation and transmission of files; receipt of responses or acknowledgments, processing of response files and error handling and notification. The external interfaces include DHSMV; out of state license look-up; collections agency; county court; credit card services; bank, print vendor, and lockbox.

10. In addition to the functionality identified above the AMTES provides a suite of audit, reconciliation, traffic, performance and financial reports. These reports will help MDX monitor ETCC operations, system performance and overall traffic and revenue statistics.

## **4.6 MDX ORT OPERATIONS**

### **4.6.1 AMTEC Facility**

ETCC has leased and renovated an Account Management and Toll Enforcement Center (AMTEC) that will house all of the back-office and customer service center systems described above, as well as operations staff. The facility will be located adjacent to the Airport Expressway and has sufficient capacity to handle MDX planned traffic growth and the expansion of the customer service center in the event that MDX determines that it will issue and manage its own transponder accounts.

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Figure 4-9  
MDX AMTEC Facility



#### **4.6.2 Key Features of AMTEC Operation**

MDX has required that ETCC provide a number of features, technologies and processes that individually and in combination will further enhance AMTEC operations, accountability, security and efficiency. Some of these features are highlighted below.

#### **4.6.3 Customer Interaction**

The MDX AMTEC operation will include its own web-site independent of, but linked to the MDX web-site; an advanced interactive voice response (IVR) telephone system, and a trained professional customer service center operation and staff to allow for efficient set-up and management of customer accounts, payment of tolls and the addressing of customer issues. Customers will be able to pay in person at the AMTEC; via the Web, or via the IVR through a CSR, or by mail. All locations will accept payment by credit or debit cards.



#### **4.6.4 Payment Processing Lockbox**

MDX specified a high level of security and accountability in its payment processing requirements for ORT. In order to meet those requirements ETCC will engage a third-party lockbox provider. This provider will be a bank and will provide a SAS 70 certified and PCI compliant payment processing capability that will automatically interface with the AMTEC for payment reporting and reconciliation and will help to ensure the integrity and security of the payment processing system.

##### **4.6.4.1.1 Collection Agency**

MDX required the services of a third-party collection agency to obtain payment from delinquent customers prior to moving to the UTC stage. The goal of this process is to make every effort to obtain payment prior to commencing the UTC process and to maximize the percentage of collected MDX tolls. MDX will not pay the collection agency for this service. The collection agency will charge a small fee to customers to cover the cost of the collection process.

##### **4.6.4.1.2 Improved Interface with Courts and DHSMV**

MDX has worked with both the county courts and the DHSMV to improve and automate the communications and interfaces to the AMTES. As a result databases used will be more up-to-date and the process for license plate ownership matching and interface to the court system will be more efficient and effective than current processes in the state of Florida. In addition, MDX will institute with the courts a bundling of transactions for a customer into a single UTC, allowing for more efficient handling and settlement of the court cases.

##### **4.6.4.1.3 Out of State license Plates**

MDX has also required that ETCC send all out-of-state license plate data to a third party who maintains access to motor vehicle department and other databases nationwide in order to identify registration information and receive payment from out of state drivers. ETCC has hired an experienced, nationally recognized provider of these services.

#### **4.6.4.1.4 Payment Card Industry (PCI) Compliance**

MDX has required that ETCC certify its system as designed and installed as PCI compliant. This will ensure that the system meets current payment industry standards for security.

#### **4.6.4.1.5 SAS 70 Compliance**

MDX has also required that ETC be subject to a SAS 70 audit to ensure compliance with the latest accounting and audit industry standards for system operation, accountability and reconciliation.

#### **4.6.4.1.6 Expanded Subsidiary Ledger (SL) Accounting**

MDX required a very high level of automated tracking of transactions in the accounting system throughout the aging of a toll system transaction under ORT. As a result, MDX and ETCC have worked on the design of a state of the art SL that accounts for all transaction statuses and maps these statuses back to the general ledger (GL) on an automated basis. This allows for more efficient, thorough and accurate reconciliation and reporting of the ORT system finances.

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## **SUMMARY**

The estimated cost to implement the MDX FY 2011-2015 Five-Year Work Program is \$494.1 million. This estimate includes funds required for project development, PD&E, final design, right-of-way acquisition, construction oversight, design/build and construction. Additionally, the General Engineering Consultant has estimated an implementation schedule for each project. Based on the General Engineering Consultant's review, both the estimated cost and the schedule appear reasonable.

MDX has continually enhanced the efficiency of their System through the use of available technology in a natural progression from conventional coin machines and manual toll collection lanes to the implementation of SunPass® lanes and express lanes. MDX is currently implementing its future toll collection system of ORT. This will enable MDX System users to pay only for the segment of roadway they drive and will also generate additional revenue which will in turn allow for MDX to expedite planned improvements to the System.

The MDX FY 2011-2015 Five-Year Work Program will move the MDX strategic plan forward to position the Authority to strengthen its revenue stream, improve mobility and enhance the safety of the MDX System.

**APPENDIX C**  
**TRAFFIC AND REVENUE STUDY**

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# MDX Systemwide Traffic and Revenue Study



**Miami-Dade County Expressway Authority**





# MDX Systemwide Traffic and Revenue Study



Prepared for

**Miami-Dade County Expressway Authority**

Prepared by



July 2010

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## EXECUTIVE SUMMARY

This report summarizes the results of a Systemwide Traffic and Revenue Study of the toll facilities operated by the Miami-Dade County Expressway Authority (Miami-Dade Expressway Authority or MDX). The primary purpose of the study was to develop estimates of traffic and revenue to be used in support of additional bond financing by MDX. Two estimates of traffic and revenue are included in this study. While both estimates include various elements of the MDX capital improvement program, the first consists of traffic and revenue generated by retaining the existing toll collection system with its cash and SunPass<sup>®</sup> methods of toll payment. The second set of estimates consist of the traffic and revenue to be generated by the conversion to open road tolling (ORT) of three of the five MDX System Expressways (i.e., SR 874, SR 878 and SR 924) phased between fiscal years 2010 and 2011 and the retention of the existing toll collection system on SR 112 and SR 836. Among other things, this study assumes ORT conversion on SR 924 on July 1, 2010, and on SR 874 and SR 878 on January 1, 2011. No toll rate changes have been assumed during the 2011 to 2035 forecast period in either the existing toll collection or partial ORT scenarios. A complete list of the basic assumptions upon which the traffic and revenue estimates contained in this report are predicated can be found in Chapter 4, page 4-15. Several of the key assumptions include:

- Toll collection concepts and toll schedules for the ORT scenario as shown in this report have been adopted;
- Revenue estimates are in “current year” dollars; and
- No other competing facilities, or capacity expansions other than those documented, will occur during the forecast period.

With the conversion to ORT come changes in methods of toll payment. MDX has adopted a three-tier ORT tolling system that in addition to SunPass<sup>®</sup>, includes pre-registered and non-registered video methods of toll payment. Under this system, customers paying with the video option would be levied a \$0.15 surcharge per toll transaction. Non-registered video customers would also receive a \$3.00 administrative fee with their monthly bill.

As a sensitivity test, this study also assessed at Fiscal Years 2015 and 2035 the traffic and revenue impacts of full systemwide conversion to ORT. This was done to provide MDX with an indication of the full traffic and revenue potential when it converts the entire system by adding SR 836 and SR 112 to ORT early in Fiscal Year 2015, following the toll locations and rates set forth in the 2006 MDX Open Road Tolling Master Plan. However, since rates have not been formally adopted by MDX for SR 836 and SR 112 upon conversion to ORT, this scenario was not evaluated in detail.



## **SYSTEM DESCRIPTION**

Figure ES-1 depicts the location of the existing and planned MDX Expressway System, along with the planned toll collection system. This was the base roadway and toll collection system, with three of the five MDX System Expressways converted to ORT, upon which the traffic and revenue forecasts have been predicated. The existing system consists of approximately 31 miles of Expressway shown as solid lines. The programmed Ramp Connector at the south end of SR 874 is shown as a dashed line. As configured in this study, this new project will add less than one mile to the MDX system. Also shown are the locations of toll plazas and toll gantries included in the ORT system traffic and revenue analysis. A brief description of each of the facilities is provided below.

### **SR 924 - GRATIGNY PARKWAY**

The Gratigny Parkway (SR 924), a limited access facility from SR 826 to just west of NW 27<sup>th</sup> Avenue, serves commuter and commercial traffic from northwest and north-central Miami-Dade County and is approximately 5.3 miles in length. At NW 27<sup>th</sup> Avenue it transitions from a limited access facility to NW 119<sup>th</sup> Street. In fiscal year (FY) 2009, the existing mainline toll plaza processed approximately 30,000 vehicles per day. Under ORT, this mainline plaza which levied a \$1.00 toll for SunPass<sup>®</sup> customers will be replaced with a toll gantry where SunPass<sup>®</sup> passenger car customers will be tolled \$0.50. As shown in Figure ES-1, the existing Gratigny will have a second mainline gantry east of SR 826 where the SunPass<sup>®</sup> toll would also be \$0.50.

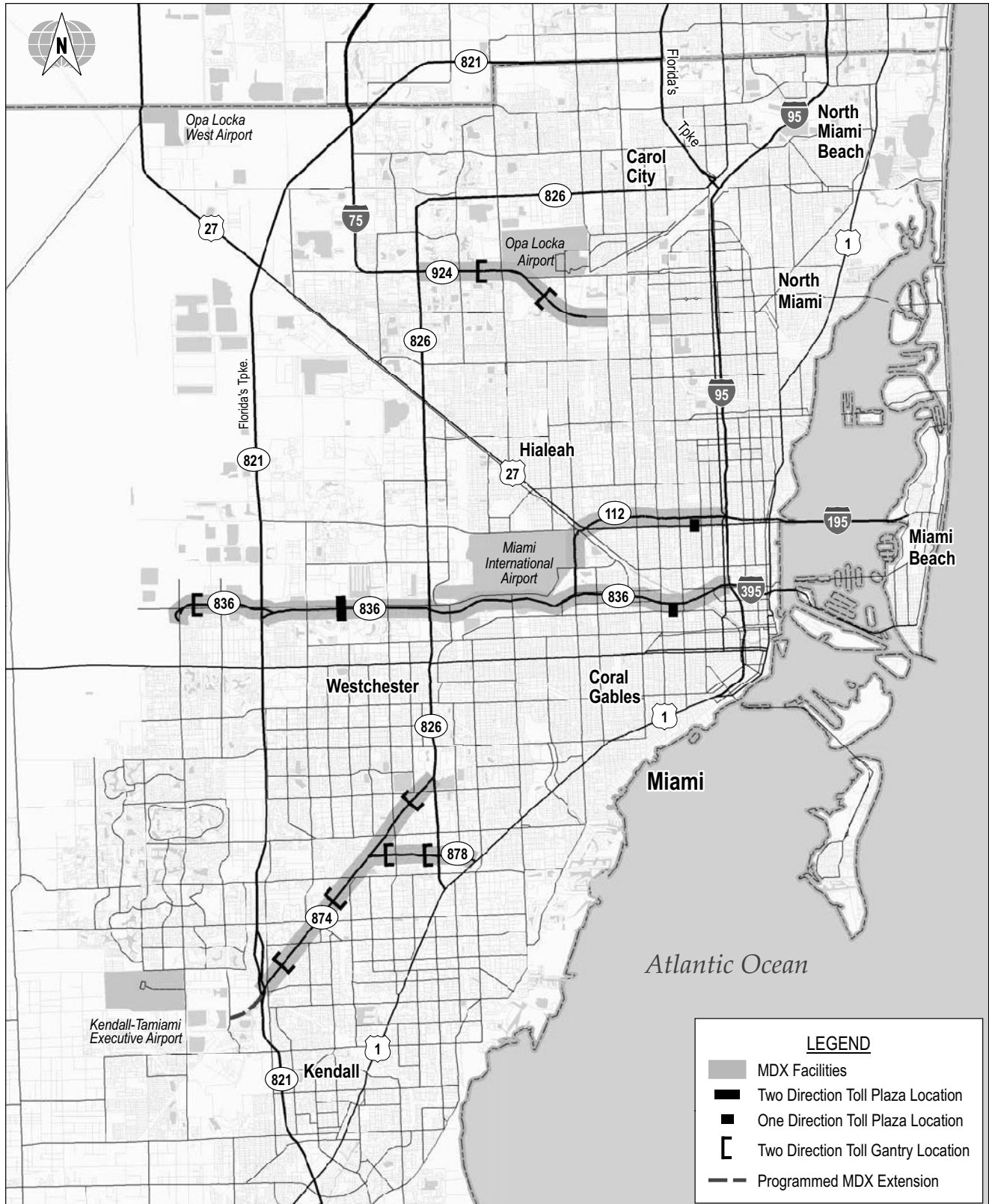
### **SR 112 - AIRPORT EXPRESSWAY**

The 4.1 mile Airport Expressway (SR 112) from the Miami International Airport (MIA) to I-95, serves short east-west commuter trips in eastern Miami-Dade County, providing access to MIA on the west to I-95 north of Miami's Central Business District. The current location and form of toll collection was retained as part of this study. Tolls are collected in the eastbound direction only, at a single mainline plaza located west of NW 12<sup>th</sup> Avenue where SunPass<sup>®</sup> passenger-car customers pay a toll of \$1.00. In FY 2009, approximately 34,000 transactions per day were processed at this plaza.

### **SR 836 - EAST-WEST EXPRESSWAY**

The East-West Expressway (SR 836), now the Dolphin Expressway, serves east-west commuters and commercial traffic across central Miami-Dade County, providing access to west Miami-Dade County, MIA, the Health District and the Downtown Miami. SR 836 is approximately 14.0 miles in length, and extends from an interchange with NW 137<sup>th</sup> Avenue to an interchange with I-95 near downtown Miami. The current locations and form of toll collection were retained as part of this study.

Tolls are collected in the eastbound direction only at a mainline plaza located immediately west of NW 17<sup>th</sup> Avenue and SunPass<sup>®</sup> passenger car customers pay a \$1.00 toll. Tolls are collected in both directions at the NW 97<sup>th</sup> Avenue mainline toll plaza where SunPass<sup>®</sup> passenger car customers pay a \$0.75 toll. Tolls are also collected on SR 836 between the Homestead Extension of Florida's Turnpike (HEFT) and NW 137<sup>th</sup> Avenue, where only SunPass<sup>®</sup> customers are permitted to use this segment and the toll is \$0.25. In 2009, the SR 836 toll plazas processed approximately 176,600 average daily transactions. This includes approximately 60,200 at the NW 17<sup>th</sup> Avenue eastbound mainline and ramp plazas, 99,000 at the NW 97<sup>th</sup> Avenue plaza, and 17,400 at the SunPass<sup>®</sup> only plaza.



### **SR 874 - DON SHULA EXPRESSWAY**

The 7.2 mile Don Shula Expressway (SR 874), serves commuter traffic from southwest to central Miami-Dade County and is signed SR 874 from the HEFT to SR 826. Tolls are currently collected at one mainline plaza located immediately north of the HEFT, where in FY 2009 approximately 77,500 average daily transactions were processed. The current SunPass<sup>®</sup> passenger car toll is \$1.00. Under ORT, this plaza will be replaced by a toll gantry where SunPass<sup>®</sup> passenger car customers will be tolled \$0.25. As shown in Figure ES-1, SR 874 will have two additional toll gantry locations. SunPass<sup>®</sup> passenger car tolls will be \$0.25 at the middle gantry and \$0.50 at the northernmost gantry. The SunPass<sup>®</sup> toll for a full-length trip will be \$1.00, the same as for an existing full-length trip.

### **SR 878 - SNAPPER CREEK EXPRESSWAY**

The 3.0 mile Snapper Creek Expressway (SR 878) provides direct access to and from SR 874 and U.S. 1. No toll plazas are currently located on this Expressway. However, under ORT two toll gantries will be located as shown in Figure ES-1. The SunPass<sup>®</sup> passenger car toll at each will be \$0.25.

## **STUDY APPROACH**

This study builds upon data and knowledge assembled from prior traffic and revenue studies of the MDX system and involved the following components:

- **Analysis of MDX system operating characteristics** – Annual and monthly traffic and revenue trends by expressway facility and toll location for the MDX system were reviewed. This included a review of short-term economic conditions, patterns of the increasing use of electronic toll collection, and the impact of on-going construction activity. Operating characteristics, such as traffic volumes, method of payment and vehicle class information, were also reviewed and used both as travel demand model inputs and for model calibration purposes.
- **Review of regional growth trends and projections** – Future socioeconomic and demographic projections for the study region were a key element of this study. An independent economics subconsultant, Washington Economics Group (WEG) was retained to provide an independent review of the reasonableness of forecasts provided by each of the Miami-Dade, Broward and Palm Beach County Metropolitan Planning Organizations (MPOs). From this independent analysis, revisions to the timing of future growth were provided, which were used to update trip tables used in the traffic modeling process.
- **Develop updated travel demand models** – Using the Southeast Florida Regional Planning Model (SERPM), Version 6.5, base (2008) and future year (2035) travel demand models were developed to estimate future traffic and revenue under existing and ORT toll collection systems on the MDX system. In consultation with the various State, county and local agencies, the model roadway network was updated to reflect the latest cost-feasible highway improvement program assumptions, including the MDX committed improvement program. Updated trip tables were developed based on the refined socioeconomic growth rate forecasts provided by WEG. The model was “recalibrated” to reflect year 2008 observed traffic counts collected on the MDX system and alternative routes, to the extent possible.

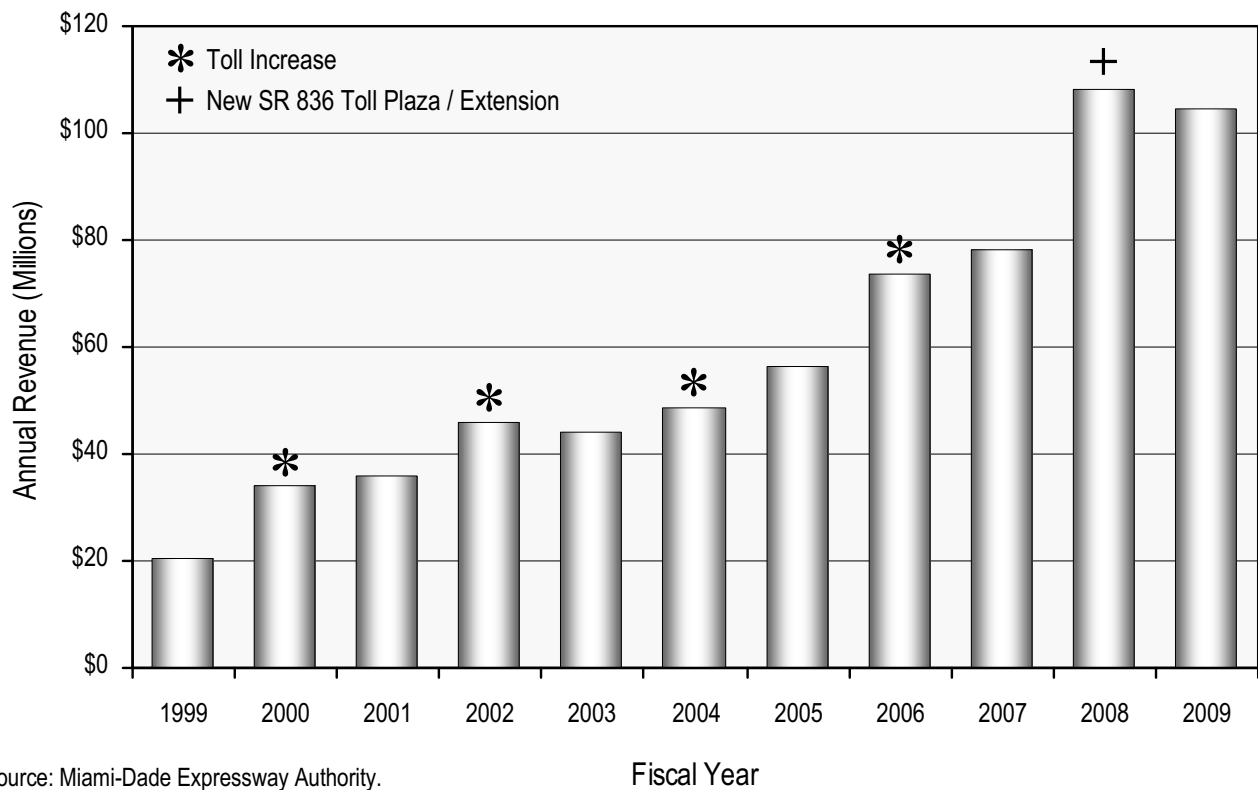
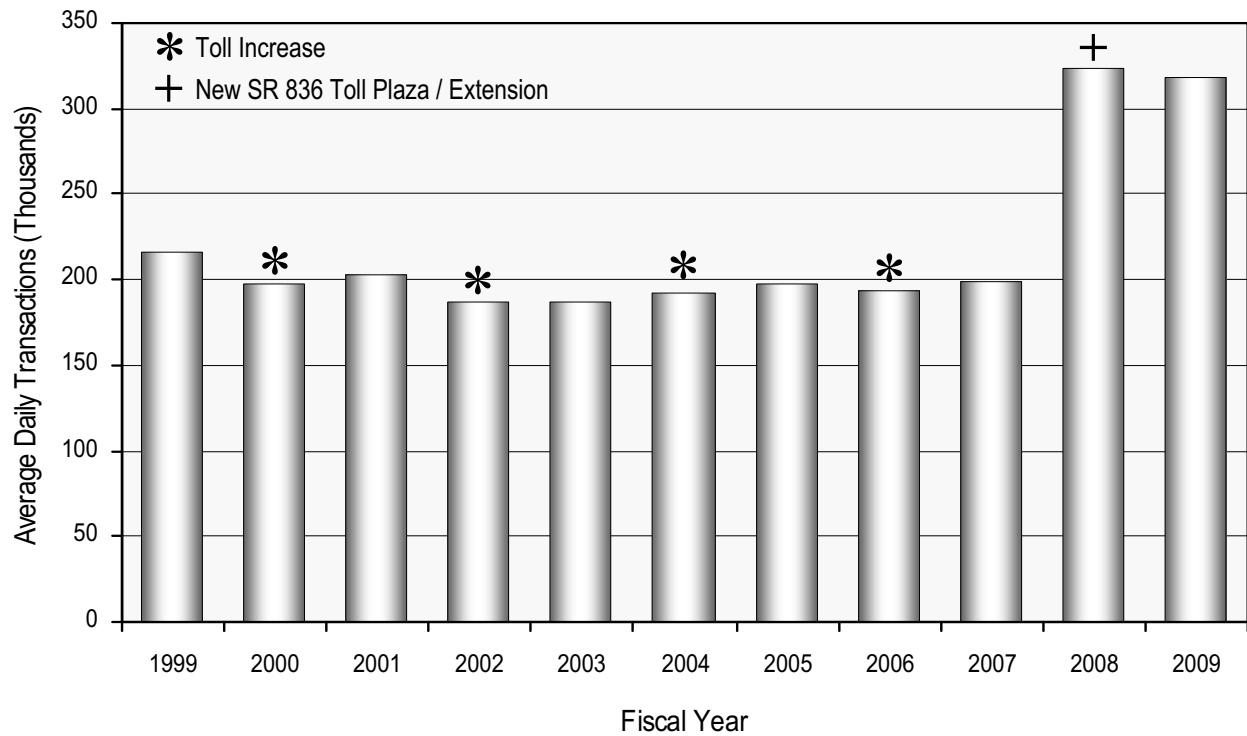
- **Analyze alternative ORT pricing rates** – An alternative pricing analysis was performed at year 2013 levels to test the potential revenue impacts of alternative price or video surcharge levels for ORT. Following a review of these analyses, and with applicable guidance from others, MDX determined that a three-tier ORT pricing option with SunPass<sup>®</sup>, pre-registered and non-registered video tolling would be preferred. Video tolling customers would be levied a \$0.15 surcharge per toll gantry location. In addition, non-registered video customers would also receive a \$3.00 administration fee with their monthly bill. Since toll rates have not been formally adopted by MDX for SR 836 and SR 112 upon conversion to ORT, this study assumed partial ORT implementation with ORT conversion on SR 924 on July 1, 2010, and on SR 874 and SR 878 on January 1, 2011.
- **Develop traffic and revenue forecasts** – Using the updated traffic models, traffic assignments at multiple analysis years including FY 2011, FY 2012, FY 2015, FY 2025 and FY 2035 were performed. These assignments assumed that ORT implementation occurred only on SR 924, SR 874 and SR 878 in FY 2011. It was also assumed that the existing toll collection system was retained on SR 112 and SR 836 during the forecast period. Estimates of traffic and revenue at each of the ORT toll gantry and existing toll plazas were made. In addition, traffic and revenue estimates assuming the existing toll collection system was retained were provided for comparative purposes. The annual traffic and revenue forecasts for the ORT and the existing toll collection system scenarios were developed by expressway through FY 2035.
- **Perform Sensitivity Tests** – Sensitivity tests were performed to estimate the potential impact on traffic and revenue assuming full systemwide ORT implementation.

## MDX OPERATING CHARACTERISTICS

Figure ES-2 presents systemwide average daily transactions and annual revenue trends from FY 1999 through FY 2009. During this ten-year period, MDX instituted a series of four toll increases in every even year from FY 2000 through FY 2006. Even with these toll increases, transactions have remained relatively stable since FY 1999 as revenue has continued to increase.

The revenue effects of the four toll changes are clearly evident from the bottom half of Figure ES-2, where revenue increased from \$20.3 million in FY 1999 to \$78.2 million in FY 2007, an increase of over 285 percent or 18.4 percent per annum. The impact on average daily transactions is evident, while significant revenue gains occur. The only exception was the FY 2004 toll increase where only cash tolls were increased. The greater cash versus SunPass<sup>®</sup> toll differential motivated many cash customers to shift to SunPass<sup>®</sup>, thereby minimizing the potential loss of traffic due to the toll change. The traffic and revenue impacts of the new SR 836 mainline toll plaza and western extension in July 2007 are also clearly evident in FY 2008.

It is also worth noting that except for FY 2003, which had negative impacts to traffic growth due to major reconstruction activities, years without toll increases (FY 2001, FY 2005 and FY 2007) experienced traffic growth ranging from 2.6 percent to 3.1 percent. Since most of the MDX Expressways are heavy commuter facilities used by motorists familiar with the time-savings advantages they afford, they typically will remain on the MDX expressways even when tolls are increased.



Source: Miami-Dade Expressway Authority.

Note: Fiscal year runs 12 months from July 1 to June 30.

## SYSTEMWIDE AVERAGE DAILY TRANSACTION AND ANNUAL REVENUE TRENDS

Therefore, the 2.6 to 3.1 percent traffic increases in FY 2001, FY 2005 and FY 2007 are likely reflective of normal growth MDX system.

Electronic toll collection was implemented in 1999 on the MDX system. As shown in Figure ES-3, SunPass<sup>®</sup> market penetration increased steadily from year 2000 when the SunPass<sup>®</sup> shares ranged between approximately 10-20 percent, to between 33-44 percent at the end of 2003. Sizable increases occurred following the March 2004 cash only toll increases. SunPass<sup>®</sup> participation immediately rose to between 45-55 percent and increased steadily reaching the 60-70 percent range by mid-2007. The introduction of the SunPass<sup>®</sup> only and new mainline plaza on SR 836 elevated systemwide participation to over 70 percent (77 percent on SR 836). By March 2010, SunPass<sup>®</sup> participation systemwide had increased to 77 percent.

Figure ES-4 presents a summary of the distribution of annual transactions by vehicle class and method of toll payment for FY 2009. Two-axle vehicles accounted for 98.4 percent of all transactions, while almost 75 percent of these transactions were made via SunPass<sup>®</sup>. Of the 1.6 percent of transactions made by three or more axle vehicles, over 85 percent were made via SunPass<sup>®</sup>.

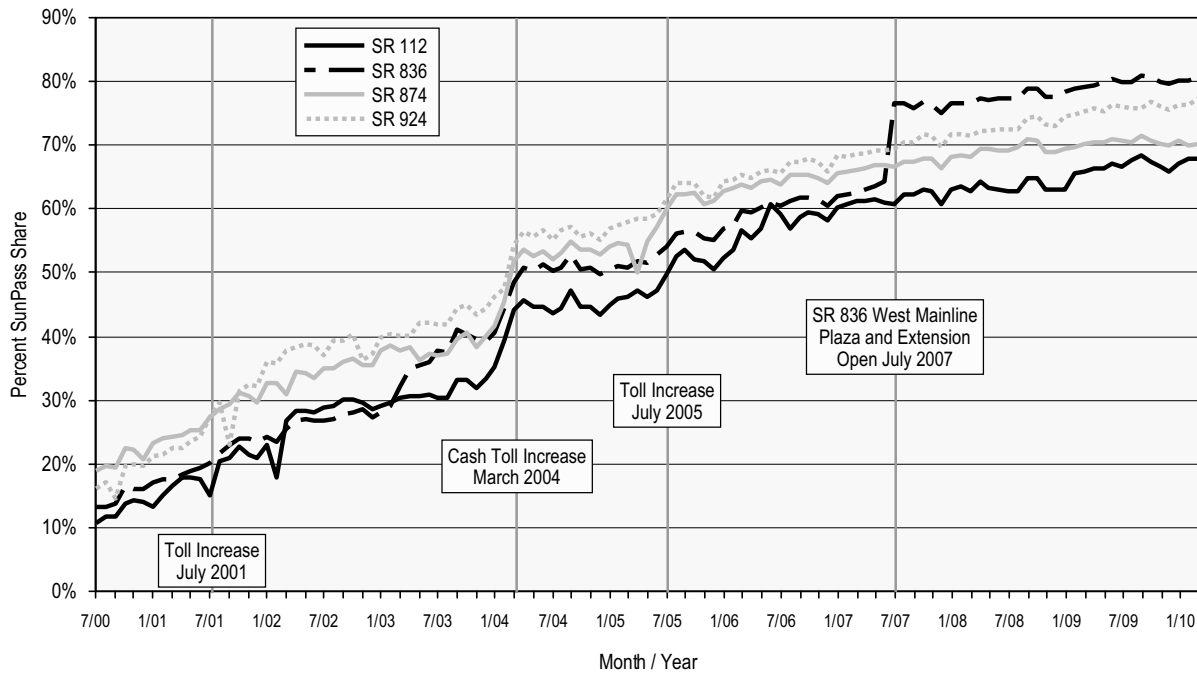
## **REGIONAL GROWTH ANALYSIS**

WEG performed a detailed review of the 2005 base socioeconomic conditions and the 2035 socioeconomic forecasts for the study area, including Miami-Dade, Broward and Palm Beach Counties. From their review and in consideration of the current economic conditions, WEG proposed alternative interim year demographic growth forecasts while concluding that the 2035 long-range forecasts, prepared by the MPO of each of the three study area counties, properly reflected the projections of economic activity in the tri-county region.

In preparing their interim year forecasts, WEG used the 2005 and 2035 MPO data set values as fixed end points for each variable, such as population, employment, households, etc. Their review of the data and historic trends of economic activity for South Florida suggested that economic activity remained strong through early 2007, before abruptly turning negative. By mid-2008, the 2006 and 2007 growth had been erased and the 2005 socioeconomic data sets were reasonable to estimate 2008 conditions, i.e. for developing 2008 trip tables.

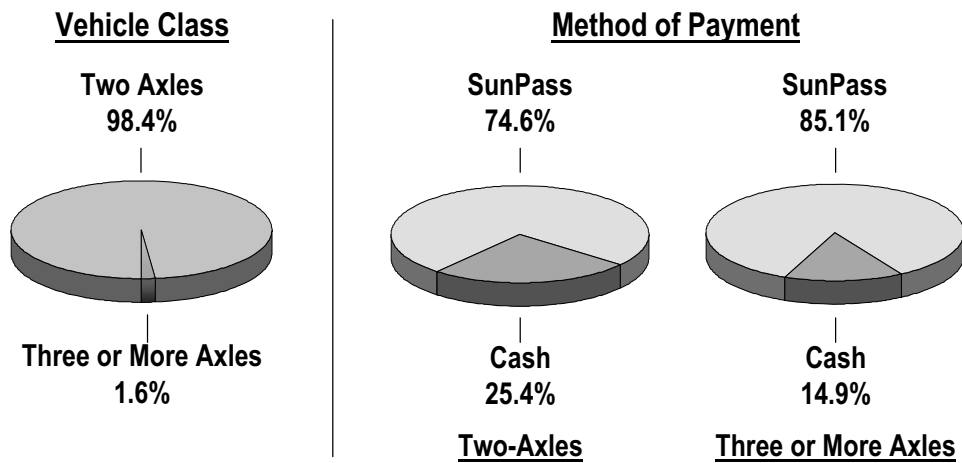
For the interim year forecasts, WEG then calculated growth rates for all socioeconomic variables used in the SERPM travel demand model based on projected population growth. Population growth was chosen as the underlying determinant of growth in each of the variables since economic analyses of growth determinants have concluded that population increases (and technological advances) are the major forces driving expansion.

Since interim year forecasts had not been prepared by the MPOs, the typical approach would have been to straight-line growth between the two endpoints. WEG chose to alter the growth schedule to account for the expected prolonged impacts of the recent economic downturn, assuming that several years would be needed for economic growth to reestablish itself and to recover to the levels of population expansion experienced over the past decades. WEG's projections of growth rates assume that population growth



## SUNPASS MARKET SHARE TRENDS

FIGURE ES-3



## TRAFFIC DISTRIBUTION BY CLASS AND PAYMENT TYPE

FIGURE ES-4

will be slower than the long-run trend until 2015 and then increase slightly above the long-run trend between 2015 – 2035. This is shown in Table ES-1. The table presents the difference between a straight-line percent change and WEG’s revised growth schedule. It shows the percent of the difference between the 2008 and 2035 travel demand model socioeconomic variables that should be applied for each forecast year. For example, a straight-line approach would apply 25.9 percent of the difference between 2008 and 2035 in 2015, while WEG’s recommended forecast applies 16.0 percent of that difference.

**Table ES-1**  
**Miami-Dade County Population Growth Profile**  
**2008 - 2035**

| Year | Forecast Percent Change |            | Straight-Line Percent Change |            | Difference In<br>Period<br>Growth Rate |
|------|-------------------------|------------|------------------------------|------------|----------------------------------------|
|      | Period                  | Cumulative | Period                       | Cumulative |                                        |
| 2008 | -                       | -          | -                            | -          | -                                      |
| 2009 | 1.06                    | 1.06       | 3.70                         | 3.70       | (2.64)                                 |
| 2010 | 1.39                    | 2.46       | 3.70                         | 7.41       | (2.31)                                 |
| 2011 | 1.65                    | 4.11       | 3.70                         | 11.11      | (2.05)                                 |
| 2012 | 2.24                    | 6.35       | 3.70                         | 14.81      | (1.47)                                 |
| 2013 | 2.82                    | 9.17       | 3.70                         | 18.52      | (0.89)                                 |
| 2014 | 3.21                    | 12.38      | 3.70                         | 22.22      | (0.49)                                 |
| 2015 | 3.64                    | 16.02      | 3.70                         | 25.93      | (0.06)                                 |
| 2016 | 4.16                    | 20.18      | 3.70                         | 29.63      | 0.46                                   |
| 2017 | 4.17                    | 24.35      | 3.70                         | 33.33      | 0.46                                   |
| 2018 | 4.17                    | 28.52      | 3.70                         | 37.04      | 0.46                                   |
| 2019 | 4.21                    | 32.72      | 3.70                         | 40.74      | 0.50                                   |
| 2020 | 4.27                    | 36.99      | 3.70                         | 44.44      | 0.56                                   |
| 2021 | 4.33                    | 41.32      | 3.70                         | 48.15      | 0.62                                   |
| 2022 | 4.39                    | 45.71      | 3.70                         | 51.85      | 0.69                                   |
| 2023 | 4.45                    | 50.16      | 3.70                         | 55.56      | 0.75                                   |
| 2024 | 4.52                    | 54.68      | 3.70                         | 59.26      | 0.81                                   |
| 2025 | 4.16                    | 58.84      | 3.70                         | 62.96      | 0.46                                   |
| 2026 | 4.21                    | 63.05      | 3.70                         | 66.67      | 0.51                                   |
| 2027 | 4.27                    | 67.32      | 3.70                         | 70.37      | 0.56                                   |
| 2028 | 4.32                    | 71.64      | 3.70                         | 74.07      | 0.62                                   |
| 2029 | 4.38                    | 76.02      | 3.70                         | 77.78      | 0.68                                   |
| 2030 | 3.89                    | 79.91      | 3.70                         | 81.48      | 0.18                                   |
| 2031 | 3.93                    | 83.83      | 3.70                         | 85.19      | 0.23                                   |
| 2032 | 3.97                    | 87.81      | 3.70                         | 88.89      | 0.27                                   |
| 2033 | 4.02                    | 91.83      | 3.70                         | 92.59      | 0.31                                   |
| 2034 | 4.06                    | 95.89      | 3.70                         | 96.30      | 0.36                                   |
| 2035 | 4.11                    | 100.00     | 3.70                         | 100.00     | 0.41                                   |

Source: The Washington Economics Group, Inc.



The WEG analysis indicates:

- For the last few decades, South Florida has experienced consistent population growth. Census Bureau data have shown that on average, Miami-Dade's population has increased by approximately 30,000 people each year for most of this decade. In the last few years, this trend has reversed as a result of the financial market disruptions and the resulting economic downturn. As lending for residential and commercial property purchases and construction disappeared, construction and other economic activities ceased. As people lost jobs, and frequently their homes as well, they have relocated from South Florida to other areas of the country potentially offering more opportunities. In Miami-Dade County this process started in early 2007 when subprime lending ceased. In the twelve to eighteen months between that time and 2008 (depending on the exact 2008 date chosen), the population gain between 2005 and 2007 had been erased by out migration.
- The economic recession in South Florida started in late 2007 and continued through the end of 2009. The recession reflected national and international factors such as the sharp reduction in financial flows to the construction sector and a decline in GDP growth. At the international level, the recession in South Florida was caused by negative growth in 2008 and in 2009 among key trade partners in Europe and in Latin America.
- However, as both the national economy and the international economy started a moderate economic recovery in late 2009, the South Florida economy has also shown signs of a moderate upturn. The recovery has been led by trade activity and key sectors of the economy such as private education and health care. International tourism is also on a recovery path, with increased traffic through the Miami International Airport.
- As the recovery takes hold and the financial markets stabilize, historical patterns of economic activity and social behavior will re-emerge. As a consequence, after a two to three year period of below-trend activity and growth, WEG expects that population growth and economic activity will again pick-up and move toward the long-term trends that are embodied in the MPO data sets.
- Population growth continues in the Southern portion of Miami-Dade County, consistent with both MPO estimates and historical growth patterns. Residential growth has historically occurred in the southern and western portions of Miami-Dade County as this is where open and developable land tracts were and are located.
- Employment growth is most prominent in the Northern portion of the County due to the concentration of professional industry clusters such as the Downtown Miami Business District, the Health District, the Port of Miami and Miami International Airport.
- Strengthening WEG's expectations of a return to long-term trends are major infrastructure projects currently under development, such as the Miami Intermodal Center (MIC) and the Port of Miami Tunnel. Once completed, the major infrastructure projects are expected to significantly improve the mobility of visitors, cruise passengers and cargo in Miami-Dade County.

In the long run, WEG estimates that the 2035 MPO forecasts are achievable, believing that it is difficult to determine if events of the last few years will result in long-term changes in economic and social activity.

## **TRAFFIC AND REVENUE ESTIMATES**

WSA obtained the SERPM, Version 6.5, travel demand model for developing traffic and revenue estimates. The model contains two major components – highway networks and trip tables. The highway network represents the major roadways in the study area (Miami-Dade, Broward and Palm Beach Counties). The trip tables represent trips made on these roadways between geographic areas in the study area known as traffic analysis zones (TAZs) and are based on socioeconomic/demographic data input assumptions for each TAZ. These two SERPM inputs required a number of modifications before the model could be used in this study.

Extensive reviews of the SERPM traffic networks were performed. Networks were revised to properly reflect mainline and ramp configurations, particularly on the MDX facilities. Additionally, the traffic networks were revised to include the future year regional cost-feasible projects. This was accomplished through a review of the transportation improvement programs of the FDOT, MDX, and other agencies, and was performed for the 2008 base year and all future year highway networks.

Following the traffic network development process, trip tables were prepared. In developing the trip tables, the socioeconomic data prepared by the MPOs were reviewed by WEG, as described above. The base (2005) and future year forecasts were adjusted to reflect estimated future economic and demographic activity in the study area. The trip tables were also disaggregated into cash and SunPass® methods of payment using historic method of payment (MOP) data from MDX, along with estimates of future year MOP percentages.

The updated traffic networks and trip tables were then used in combination with toll rate assumptions provided by MDX to run future year traffic assignments. Traffic assignments were run to produce FY 2011, 2012, 2015, 2025 and 2035 estimates of traffic and revenue on the MDX facilities under two scenarios. These included estimates assuming retention of the existing toll collection system and estimates assuming conversion to ORT on SR 924 on July 1, 2010 and on SR 874 and SR 878 on January 1, 2011. Toll collection on SR 112 and SR 836 would remain as it currently exists.

The annual traffic and revenue estimates for the existing toll collection system for all MDX facilities combined are provided in Table ES-2. Total transactions in FY 2011 are estimated at 122.2 million, of which 96.1 million or 79 percent are SunPass® and 26.1 million are cash. By FY 2015, total transactions are estimated to increase to 136.3 million, a growth rate of 2.8 percent over the four year period. SunPass® transactions are estimated to grow by 3.9 percent per annum over the same period to 111.9 million, representing 82 percent of all FY 2015 transactions. Cash transactions are estimated to decrease to 24.4 million in 2015.

**Table ES-2**  
**Estimated Annual Toll Transactions and Revenue**  
**Existing Toll System**  
**Total MDX System**

| Fiscal<br>Year | Transactions (000s) |         |         | Revenue (000s) |           |            | Average<br>Toll |
|----------------|---------------------|---------|---------|----------------|-----------|------------|-----------------|
|                | Cash                | SunPass | Total   | Cash           | SunPass   | Total      |                 |
| 2011           | 26,115              | 96,097  | 122,212 | \$ 31,410      | \$ 85,885 | \$ 117,295 | \$ 0.960        |
| 2012           | 25,500              | 100,191 | 125,691 | 30,641         | 89,601    | 120,242    | 0.957           |
| 2013           | 25,140              | 103,907 | 129,047 | 30,201         | 93,094    | 123,295    | 0.955           |
| 2014           | 24,788              | 107,796 | 132,583 | 29,771         | 96,754    | 126,525    | 0.954           |
| 2015           | 24,444              | 111,866 | 136,310 | 29,351         | 100,590   | 129,941    | 0.953           |
| 2016           | 24,844              | 115,540 | 140,384 | 29,832         | 103,809   | 133,641    | 0.952           |
| 2017           | 25,252              | 119,339 | 144,591 | 30,322         | 107,135   | 137,457    | 0.951           |
| 2018           | 25,667              | 123,266 | 148,933 | 30,821         | 110,573   | 141,394    | 0.949           |
| 2019           | 26,090              | 127,327 | 153,417 | 31,330         | 114,126   | 145,456    | 0.948           |
| 2020           | 26,522              | 131,525 | 158,047 | 31,849         | 117,799   | 149,647    | 0.947           |
| 2021           | 26,962              | 135,866 | 162,828 | 32,377         | 121,594   | 153,971    | 0.946           |
| 2022           | 27,410              | 140,354 | 167,764 | 32,916         | 125,518   | 158,433    | 0.944           |
| 2023           | 27,867              | 144,995 | 172,862 | 33,465         | 129,573   | 163,038    | 0.943           |
| 2024           | 28,333              | 149,794 | 178,127 | 34,025         | 133,765   | 167,790    | 0.942           |
| 2025           | 28,808              | 154,757 | 183,565 | 34,595         | 138,099   | 172,694    | 0.941           |
| 2026           | 29,167              | 159,186 | 188,352 | 35,008         | 141,863   | 176,871    | 0.939           |
| 2027           | 29,530              | 163,742 | 193,273 | 35,426         | 145,732   | 181,157    | 0.937           |
| 2028           | 29,899              | 168,431 | 198,329 | 35,849         | 149,707   | 185,556    | 0.936           |
| 2029           | 30,272              | 173,255 | 203,527 | 36,278         | 153,793   | 190,071    | 0.934           |
| 2030           | 30,650              | 178,218 | 208,868 | 36,712         | 157,992   | 194,704    | 0.932           |
| 2031           | 31,034              | 183,325 | 214,359 | 37,152         | 162,307   | 199,459    | 0.930           |
| 2032           | 31,422              | 188,580 | 220,002 | 37,598         | 166,742   | 204,340    | 0.929           |
| 2033           | 31,816              | 193,987 | 225,803 | 38,049         | 171,300   | 209,350    | 0.927           |
| 2034           | 32,215              | 199,550 | 231,765 | 38,507         | 175,985   | 214,492    | 0.925           |
| 2035           | 32,619              | 205,275 | 237,894 | 38,970         | 180,800   | 219,770    | 0.924           |

By FY 2035, total transactions are estimated to increase to approximately 237.9 million, a growth rate of 2.8 percent per annum from FY 2015. SunPass<sup>®</sup> transactions are estimated to reach 205.3 million or 86 percent of total transactions. SunPass<sup>®</sup> transactions over the 20 year period are estimated to grow by 3.1 percent per annum. These rates of growth are partly attributable to the effects of inflation which decrease the real value of tolls over time. For example, at the assumed inflation rate of 2.5 percent per year, a \$1.00 toll in 2008 would effectively be worth \$0.84 in 2015, \$0.66 in 2025 and \$0.51 in 2035. Therefore, by inflating the value of time, the toll rate is effectively lowered through inflation and tolled facilities tend to become more attractive. Cash transactions in FY 2035 of 32.6 million represent a decreasing share of total transactions of 13.7 percent, down from 17.9 percent in FY 2015.

Total estimated annual toll revenue is forecasted to increase from \$117.3 million in FY 2011 to \$129.9 million in FY 2015, an annual growth rate of 2.6 percent. FY 2011 SunPass<sup>®</sup> revenue of \$85.9 million is estimated to increase to \$100.6 million in FY 2015. Cash revenue is estimated to decrease from \$31.4 million in FY 2011 to \$29.4 million in FY 2015. By 2035, total toll revenue is estimated to reach \$219.8 million, of which \$180.8 million is from SunPass<sup>®</sup> transactions and \$39.0 million from cash transactions.

Table ES-2 also provides the average toll over the forecast period. During the forecast period, average tolls are estimated to decrease by almost \$0.036, a result of the increases in SunPass<sup>®</sup> participation. Between FY 2011 and FY 2035, the average annual toll rate is estimated to decrease from \$0.960 to \$0.924.

The annual traffic and revenue estimates for the partial ORT are provided in Table ES-3. While the ORT toll per gantry will be lower than the tolls currently charged at the existing toll locations, the increased number of ORT toll locations is expected to capture more transactions, leading to greater revenue than under the current toll system. Additionally, by reducing the tolls at the existing mainline plazas and tolling previously toll-free movements, ORT implementation is expected to provide MDX customers with a more equitable tolling system. Total transactions in FY 2012, the first full year of ORT operation are estimated at 246.6 million, of which 201.7 million or almost 82 percent are SunPass<sup>®</sup>, and 15.3 million cash, and 29.6 million video. By FY 2015, total transactions are estimated to increase to 267.9 million, a growth rate of 2.8 percent over the three year period. SunPass<sup>®</sup> transactions are estimated to grow by 3.8 percent per annum over the same period to 225.8 million, representing 84 percent of all FY 2015 transactions, while video transactions decrease to 27.2 million or 10 percent of total transactions. Cash transactions are estimated to decrease to 14.9 million in FY 2015. Due to estimated increases in SunPass<sup>®</sup> participation as described in Chapter 4, cash and video transactions are expected to decline between FY 2011 and FY 2015 given the price differential between SunPass<sup>®</sup> and other methods of payment. However, as the rate at which MDX customers switching to SunPass<sup>®</sup> slows after FY 2015, the number of cash and video transactions are estimated to increase proportionally with overall traffic.

| Fiscal<br>Year | Transactions (000s) |         |        |         | Revenue (000s) |           |          |            |            | Average<br>Toll <sup>(1)</sup> |
|----------------|---------------------|---------|--------|---------|----------------|-----------|----------|------------|------------|--------------------------------|
|                | Cash                | SunPass | Video  | Total   | Cash           | SunPass   | Video    | Admin. Fee | Total      |                                |
| 2011           | 19,853              | 152,190 | 17,225 | 189,268 | \$ 23,340      | \$ 94,890 | \$ 9,190 | \$ 2,699   | \$ 130,119 | \$ 0.673                       |
| 2012           | 15,341              | 201,729 | 29,558 | 246,628 | 17,669         | 104,020   | 14,911   | 4,201      | 140,801    | 0.554                          |
| 2013           | 15,178              | 209,436 | 28,744 | 253,359 | 17,475         | 108,095   | 14,614   | 4,157      | 144,341    | 0.553                          |
| 2014           | 15,020              | 217,456 | 27,955 | 260,431 | 17,286         | 112,351   | 14,324   | 4,114      | 148,076    | 0.553                          |
| 2015           | 14,867              | 225,801 | 27,189 | 267,857 | 17,104         | 116,798   | 14,040   | 4,074      | 152,016    | 0.552                          |
| 2016           | 15,052              | 233,083 | 27,705 | 275,841 | 17,318         | 120,314   | 14,295   | 4,178      | 156,105    | 0.551                          |
| 2017           | 15,240              | 240,604 | 28,231 | 284,075 | 17,536         | 123,939   | 14,554   | 4,285      | 160,314    | 0.549                          |
| 2018           | 15,431              | 248,371 | 28,767 | 292,569 | 17,757         | 127,677   | 14,818   | 4,395      | 164,648    | 0.548                          |
| 2019           | 15,625              | 256,393 | 29,313 | 301,331 | 17,981         | 131,532   | 15,087   | 4,508      | 169,108    | 0.546                          |
| 2020           | 15,822              | 264,677 | 29,870 | 310,369 | 18,209         | 135,507   | 15,361   | 4,623      | 173,701    | 0.545                          |
| 2021           | 16,023              | 273,233 | 30,437 | 319,692 | 18,441         | 139,606   | 15,640   | 4,742      | 178,429    | 0.543                          |
| 2022           | 16,226              | 282,069 | 31,015 | 329,310 | 18,677         | 143,834   | 15,924   | 4,863      | 183,297    | 0.542                          |
| 2023           | 16,433              | 291,195 | 31,604 | 339,232 | 18,916         | 148,194   | 16,213   | 4,988      | 188,310    | 0.540                          |
| 2024           | 16,643              | 300,621 | 32,204 | 349,468 | 19,159         | 152,690   | 16,507   | 5,116      | 193,472    | 0.539                          |
| 2025           | 16,856              | 310,357 | 32,815 | 360,028 | 19,406         | 157,327   | 16,807   | 5,247      | 198,787    | 0.538                          |
| 2026           | 17,232              | 320,526 | 33,296 | 371,054 | 19,819         | 162,462   | 17,035   | 5,365      | 204,681    | 0.537                          |
| 2027           | 17,617              | 331,039 | 33,785 | 382,441 | 20,241         | 167,770   | 17,267   | 5,486      | 210,764    | 0.537                          |
| 2028           | 18,011              | 341,910 | 34,281 | 394,202 | 20,672         | 173,257   | 17,502   | 5,610      | 217,042    | 0.536                          |
| 2029           | 18,413              | 353,149 | 34,787 | 406,349 | 21,112         | 178,930   | 17,742   | 5,738      | 223,522    | 0.536                          |
| 2030           | 18,824              | 364,771 | 35,300 | 418,895 | 21,562         | 184,795   | 17,985   | 5,869      | 230,210    | 0.536                          |
| 2031           | 19,245              | 376,789 | 35,822 | 431,855 | 22,021         | 190,859   | 18,232   | 6,003      | 237,115    | 0.535                          |
| 2032           | 19,675              | 389,216 | 36,352 | 445,243 | 22,490         | 197,128   | 18,483   | 6,141      | 244,242    | 0.535                          |
| 2033           | 20,114              | 402,068 | 36,892 | 459,074 | 22,969         | 203,610   | 18,739   | 6,282      | 251,600    | 0.534                          |
| 2034           | 20,564              | 415,358 | 37,440 | 473,362 | 23,458         | 210,312   | 18,999   | 6,427      | 259,196    | 0.534                          |
| 2035           | 21,023              | 429,103 | 37,998 | 488,124 | 23,958         | 217,242   | 19,263   | 6,576      | 267,039    | 0.534                          |

<sup>(1)</sup> Average toll calculation does not include the administrative fee.

By FY 2035, total transactions are estimated to increase to approximately 488.1 million, a growth rate of 3.1 percent per annum from FY 2015. SunPass<sup>®</sup> transactions are estimated to reach 429.1 million or 88 percent of total transactions, while video transactions increase to 38.0 million or 8 percent of total transactions. SunPass<sup>®</sup> transactions over the 20 year period are estimated to grow by 3.3 percent per annum, aided by the effects of inflation decreasing the real value of tolls over time and making tolled facilities relatively more attractive. Cash transactions in FY 2035 of 21.0 million represent a decreasing share of total transactions at 4.0 percent, down from 6.0 percent in FY 2015.

Total estimated annual toll revenue is forecasted to increase from \$140.8 million in FY 2012 to \$152.0 million in FY 2015. FY 2012 SunPass<sup>®</sup> revenue of \$104.0 million is estimated to increase to \$117.0 million in FY 2015. Video revenue is estimated to decrease from \$14.9 million in FY 2012 to \$64.0 million in FY 2015. Cash revenue is also estimated to decrease from \$17.7 million in FY 2012 to \$17.1 million in FY 2015. By 2035, total toll revenue is estimated to exceed \$267.0 million, of which \$217.2 million is from SunPass<sup>®</sup> transactions, \$19.3 million from video transactions, and \$24.0 million from cash transactions.

Table ES-3 also provides the average toll over the forecast period. During the FY 2012 to FY 2035 forecast period, average tolls are estimated to decrease by almost \$0.020. Between FY 2012 and FY 2035, the average toll rate is estimated to decrease from \$0.554 to \$0.534. Although average toll rates are expected to decrease as a result of increased SunPass<sup>®</sup> participation, transactions are estimated to increase such that estimated revenues also increase during the forecast period.

## **SENSITIVITY TEST**

A sensitivity test was conducted to provide a measure of the impacts on annual transactions and revenue to changes in key study assumptions. This test assumed full systemwide ORT implementation beginning in FY 2015, including implementation of ORT on SR 112 and SR 836. Traffic assignments for this test were run for FY 2015 and 2035. For the purposes of this sensitivity test the toll rates and locations provided in the 2006 MDX Open Road Tolling Master Plan were used, as detailed in Table ES-4.

### **FULL SYSTEMWIDE ORT IMPLEMENTATION**

Table ES-5 presents the transaction and revenue impact of systemwide ORT implementation. Under partial ORT implementation, estimated annual transactions are 267.9 million in FY 2015 and 488.6 million in FY 2035. Estimated annual transactions are 442.8 million in FY 2015 and 752.5 million in FY 2035 under full systemwide ORT implementation.

Under partial ORT implementation, estimated annual revenue is \$147.9 million in FY 2015 and \$260.4 million in FY 2035. Estimated annual revenue is \$179.0 million in FY 2015 and \$294.7 million in FY 2035 under full systemwide ORT implementation.

**Table ES-4**  
**Full Systemwide Open Road Tolling Toll Rate Assumptions**  
**Passenger Car-Based Rates**

| Expressway | Toll Plaza                           |          |           | Toll                   |                |                               |
|------------|--------------------------------------|----------|-----------|------------------------|----------------|-------------------------------|
|            |                                      |          |           | SunPass <sup>(1)</sup> | Video          |                               |
|            | Location                             | Type     | Direction |                        | Pre-Registered | Non-Registered <sup>(2)</sup> |
| SR 924     | West of NW 42 <sup>nd</sup> Avenue   | Mainline | Both      | \$ 0.50                | \$ 0.65        | \$ 0.65                       |
|            | West of W 4 <sup>th</sup> Avenue     | Mainline | Both      | 0.50                   | 0.65           | 0.65                          |
| SR 112     | West of NW 27th St.                  | Mainline | Both      | 0.25                   | 0.40           | 0.40                          |
|            | West of 12 <sup>th</sup> Avenue      | Mainline | Both      | 0.25                   | 0.40           | 0.40                          |
|            | NW 17th Ave.                         | Ramp     | T/F East  | 0.25                   | 0.40           | 0.40                          |
| SR 836     | NW 12th Ave.                         | Ramp     | T/F East  | 0.25                   | 0.40           | 0.40                          |
|            | West of NW 17 <sup>th</sup> Avenue   | Mainline | Both      | 0.50                   | 0.65           | 0.65                          |
|            | 17 <sup>th</sup> Avenue              | Ramp     | T/F West  | 0.50                   | 0.65           | 0.65                          |
|            | NW 27th Ave.                         | Ramp     | T/F West  | 0.25                   | 0.40           | 0.40                          |
|            | NW 57th Ave.                         | Ramp     | T/F East  | 0.25                   | 0.40           | 0.40                          |
|            | West of NW 57th Ave.                 | Mainline | Both      | 0.50                   | 0.65           | 0.65                          |
|            | NW 72nd Ave.                         | Ramp     | T/F West  | 0.25                   | 0.40           | 0.40                          |
|            | NW 87th Ave.                         | Ramp     | T/F East  | 0.25                   | 0.40           | 0.40                          |
|            | West of NW 97 <sup>th</sup> Avenue   | Mainline | Both      | 0.50                   | 0.65           | 0.65                          |
|            | NW 107th Ave.                        | Ramp     | T/F West  | 0.25                   | 0.40           | 0.40                          |
| SR 874     | East of NW 137 <sup>th</sup> Avenue  | Mainline | Both      | 0.25                   | 0.40           | 0.40                          |
|            | North of HEFT                        | Mainline | Both      | 0.25                   | 0.40           | 0.40                          |
|            | North of SW 104 <sup>th</sup> Street | Mainline | Both      | 0.25                   | 0.40           | 0.40                          |
| SR 878     | South of SR 826                      | Mainline | Both      | 0.50                   | 0.65           | 0.65                          |
|            | East of SR 874                       | Mainline | Both      | 0.25                   | 0.40           | 0.40                          |
| SR 878     | East of SW 87 <sup>th</sup> Avenue   | Mainline | Both      | 0.25                   | 0.40           | 0.40                          |

<sup>(1)</sup> SunPass Rates are from the 2006 MDX Open Road Tolling Master Plan.

<sup>(2)</sup> Non-registered video customers would also be assessed a \$3.00 administrative fee with each monthly invoice.

T/F = to/from

n.a. = not applicable

**Table ES-5**  
**Estimated Annual Transactions and Revenue**  
**Partial versus Systemwide ORT Implementation**

| ORT Implementation | Transactions (000s) |         | Revenue (000s) <sup>(1)</sup> |            |
|--------------------|---------------------|---------|-------------------------------|------------|
|                    | 2015                | 2035    | 2015                          | 2035       |
| Partial            | 267,857             | 488,124 | \$ 147,942                    | \$ 260,463 |
| Systemwide         | 442,806             | 752,503 | \$ 179,045                    | \$ 294,702 |
| Difference         | 174,949             | 264,379 | \$ 31,072                     | \$ 34,239  |

<sup>(1)</sup> Excludes revenue generated from the unregistered video user administrative fee.

# CHAPTER 1

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## INTRODUCTION

Pursuant to Chapter 348, Part I, Florida Statutes, as amended, also known as the Florida Expressway Authority Act, the Board of County Commissioners of Miami-Dade County created the Miami-Dade County Expressway Authority (MDX) on December 13, 1994. The intent behind the formation of MDX was to establish a responsive funding source, independent of federal sources, to address transportation needs and to enhance mobility throughout Miami-Dade County.

In December 1996, the Florida Department of Transportation (FDOT) transferred operational and financial control of the following expressways to MDX:

- **State Road 924** (Gratigny Parkway) from State Road 826 (Palmetto Expressway) to just west of NW 27<sup>th</sup> Avenue;
- **State Road 112** (Airport Expressway) from the Miami International Airport (MIA) to I-95;
- **State Road 836** (East-West Expressway)<sup>(1)</sup> from the Homestead Extension of Florida's Turnpike (HEFT) to I-95;
- **State Road 874** (Don Shula Expressway)<sup>(2)</sup> from the Homestead Extension of Florida's Turnpike to State Road 826 (Palmetto Expressway); and
- **State Road 878** (Snapper Creek Expressway) from State Road 874 to U.S. Route 1.

### PURPOSE OF STUDY

Wilbur Smith Associates (WSA) serves as Traffic and Revenue Consultant for MDX. The last long-term, investment-grade traffic and revenue forecast was developed and prepared by WSA for MDX in 2004. That forecast was based on a comprehensive traffic and revenue study,

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<sup>(1)</sup> Also referred to as the Dolphin Expressway.

<sup>(2)</sup> Also referred to as the South Dade Expressway.

which included origin-destination surveys, stated-preference surveys, a detailed economic analysis and an evaluation of several planned MDX System improvements.

In the intervening five years, the long-term forecast provided in the 2004 study has been subjected to minor updates to reflect actual traffic and revenue trends and changes in certain assumptions regarding future MDX improvements. However, no new comprehensive long-term traffic and revenue forecast has been developed in this period. During this time many variables affecting traffic and revenue have changed, including the western extension of and new mainline toll plaza on SR 836, the short- and long-term MDX improvement program, the state of the economy and motor fuel prices.

As such, WSA has been requested to perform a detailed update of the 2004 study, culminating in the development of formalized updated long-term traffic and revenue forecasts for the MDX System. Therefore, this study is a comprehensive traffic and revenue study intended to be used in support of additional bond financing by MDX. The revenue forecasts included in this report consist of revenue to be generated from various elements of the improvement program, most notably the conversion to open road tolling (ORT) completed by FY 2011 on SR 924, SR 874 and SR 878. ORT implementation is assumed to occur for SR 924 on July 1, 2010, and for SR 874 and SR 878 on January 1, 2011. While ORT is to be implemented on SR 112 and SR 836 by FY 2015, as per the 2006 MDX Open Road Tolling Master Plan, it was determined not to include the revenue impacts associated with these changes because toll rates not have not been formally adopted for SR 112 and SR 836 by MDX upon conversion to ORT. However, WSA has included, as a sensitivity test, the revenue impacts of ORT on SR 112 and SR 836.

The study was conducted at a level of detail to meet the typical requirements of the financial community for major new bond issues. The MDX system has a long record of success and has enjoyed considerable traffic and revenue growth in the past, aided by a series of toll increases. However, due to the implementation of ORT and the elimination of many toll-free movements on the MDX system, this forecast includes significant revenue from new toll collection locations (mainline and ramp toll gantries). The study also includes an independent review of underlying socioeconomic forecasts by the Washington Economics Group, a detailed traffic and revenue evaluation and sensitivity tests. While the study is comprehensive in nature, it did not include origin-destination survey data collection efforts which were performed in the 2004 study.



## **DESCRIPTION OF EXISTING MDX SYSTEM**

The existing MDX Expressway System is shown in Figure 1-1. It consists of about 31 miles of expressways, with revenues currently collected at six mainline and one ramp locations. A brief description of each of the facilities is provided below.

### **SR 924 - GRATIGNY PARKWAY**

The Gratigny Parkway (SR 924), which extends from SR 826 to west of NW 27th Avenue, opened to traffic on January 6, 1992 and serves commuter and commercial traffic from northwest to north-central Miami-Dade County. SR 924 is approximately 5.3 miles in length, contains a total of 39.8 lane-miles, and extends from an interchange with I-75 and the Palmetto Expressway (SR 826) to NW 27th Avenue. At NW 27th Avenue, SR 924 transitions from a limited access facility to an arterial facility (NW 119th Street).

Tolls are collected in both directions at the mainline toll plaza, which is located northwest of NW 42nd Avenue. Passenger car cash customers pay \$1.25 for a full-length trip, or \$0.277 per-mile. The same trip for SunPass<sup>®</sup> customers is \$1.00 or \$0.222 per-mile.

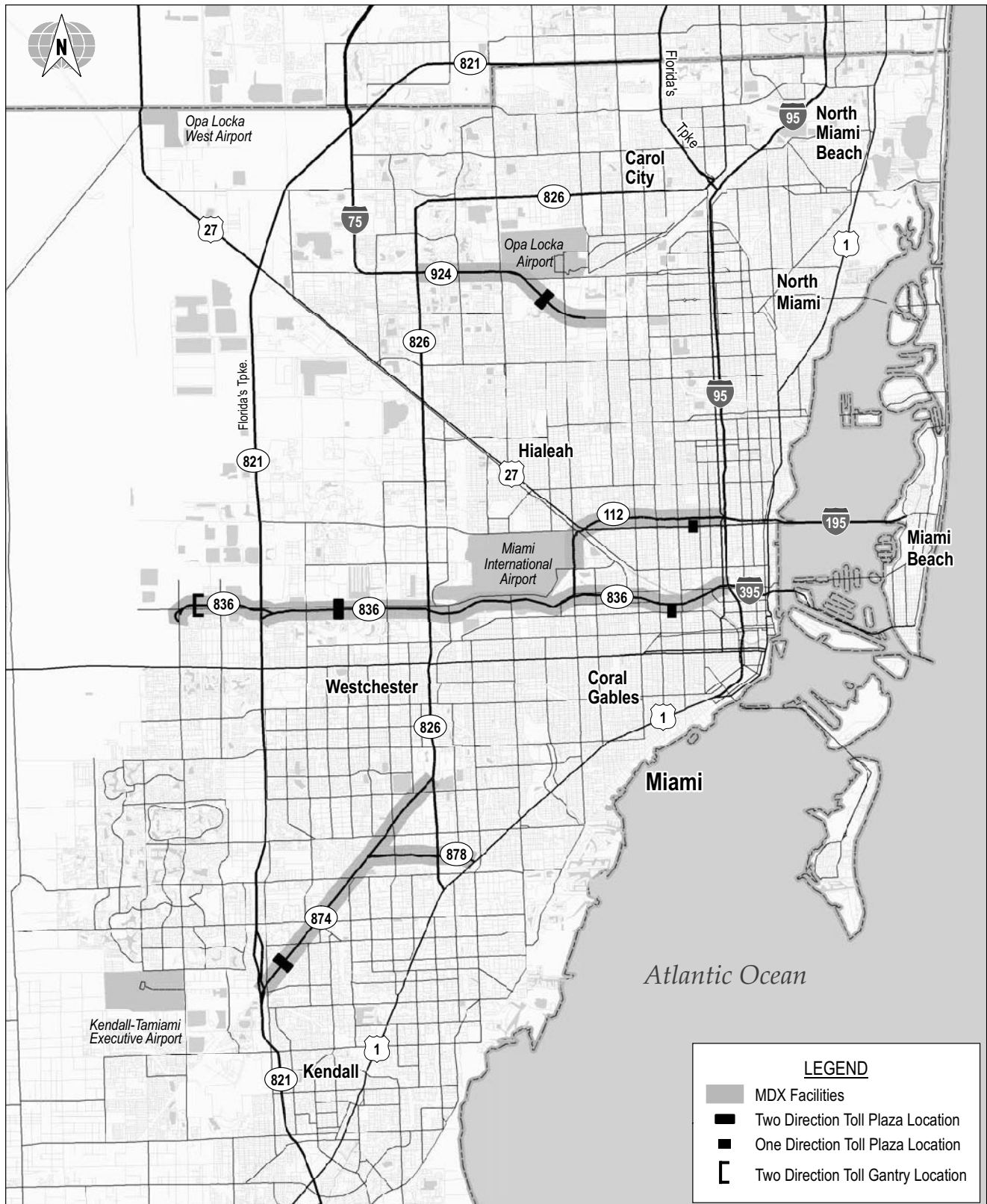
### **SR 112 - AIRPORT EXPRESSWAY**

The Airport Expressway (SR 112) from Miami International Airport (MIA) to I-95, serves short east-west commuter trips in eastern Miami-Dade County, providing access to MIA on the west and I-95 north of Downtown Miami. The expressway is 4.1 miles in length, contains 26.4 lane-miles. An eastern extension of SR 112 (I-195, which is not an MDX facility) provides access to Miami Beach. The Airport Expressway opened to traffic on December 22, 1961.

Tolls are collected in the eastbound direction only, at a single mainline toll plaza located west of 12th Avenue (SR 933). Eastbound passenger car cash customers pay \$1.25 or approximately \$0.305 per mile for a full-length trip, while westbound customers make the reverse trip toll-free. SunPass<sup>®</sup> customers pay \$1.00 for a full-length or approximately \$0.244 per-mile.

### **SR 836 - EAST-WEST EXPRESSWAY**

The East-West Expressway (SR 836), also referred to as the Dolphin Expressway, extends from west of the HEFT to I-95 and serves east-west commuters and commercial traffic across central Miami-Dade County, providing access to west Miami-Dade County, MIA, and the Central Business District. SR 836 is approximately 14.0 miles in length, with a total of 98.6 lane-miles, and extends from an interchange with NW 137th



Avenue to an interchange with I-95 near downtown Miami. The facility opened in stages with the segment from SR 826 to I-95 opening to traffic on September 16, 1965, the segment from the HEFT to SR 826 opening in 1972, and the segment from the HEFT to NW 137th Avenue opening in July 2007.

Tolls are collected in the eastbound direction only at a mainline toll plaza located just west of NW 17th Avenue. Passenger car cash customers pay \$1.25 at this location. Tolls are collected in both directions at the newly constructed NW 97th Avenue toll plaza. Cash customers pay \$1.00 at this location. Tolls are also collected on SR 836 between the HEFT and the western terminus at NW 137th Avenue. Only customers whose vehicles are equipped with a SunPass<sup>®</sup> transponder are permitted to use this westernmost segment. The toll for this segment is \$0.25.

The toll for eastbound cash customers traveling the entire length of SR 836 (I-95 to HEFT) is \$2.25 or approximately \$0.208 per-mile for the 10.8 mile trip, while the toll for traveling the entire length of the facility in the westbound direction is \$1.00 or approximately \$0.093 per-mile. Similar trips for SunPass<sup>®</sup> customers are \$1.75 or \$0.162 per-mile eastbound and \$0.75 or \$0.069 per-mile westbound. The SunPass<sup>®</sup> toll from I-95 to NW 137th Avenue is \$2.00 or approximately \$0.143 per-mile for the 14.0 mile eastbound trip, and \$1.00 or \$0.071 per-mile westbound. The major toll-free movements on SR 836 include traffic in both directions between the Palmetto Expressway (SR 826) and LeJeune Road (NW 42nd Avenue / MIA) and westbound from I-95 to LeJeune Road. SunPass<sup>®</sup> was implemented on SR 836 on June 19, 1999.

#### **SR 874 - DON SHULA EXPRESSWAY**

The Don Shula Expressway (SR 874) extends from the HEFT to SR 826 opened to traffic on July 8, 1974. This facility serves commuter traffic from southwest to central Miami-Dade County. SR 874 is 7.2 miles in length, contains a total of 42.8 lane-miles, and extends from an interchange with the HEFT to an interchange with SR 826, 3.7 miles south of SR 836.

Tolls are collected in both directions at one mainline toll plaza located just north of the HEFT. Passenger car cash customers pay \$1.25, which represents a per-mile rate of \$0.174 over the entire length of the facility. SunPass<sup>®</sup> customers pay \$1.00 or \$0.139 per-mile. A significant number of movements on the facility are toll-free, including all intermediate movements north of the mainline toll plaza. SunPass<sup>®</sup> was implemented on SR 874 on June 26, 1999.

#### **SR 878 - SNAPPER CREEK EXPRESSWAY**

The Snapper Creek Expressway (SR 878) which extends from SR 874 to U.S. Route 1 is a short, 3.0 mile, east-west spur of SR 874 that begins north of Kendall Drive (SW 88th Street). The facility has a total of 13.1 centerline miles. It provides direct access to U.S. Route 1 and a Metrorail parking garage on the east. The road opened at the same time as the South Dade Expressway in 1974. No toll plazas are located on this expressway.

#### **OTHER PRINCIPAL HIGHWAYS IN MIAMI-DADE COUNTY**

The MDX facilities are part of an integrated system of roadways in Miami-Dade County. In addition to the MDX facilities, a number of expressways and local arterials allow an array of surface transportation alternatives in Miami of varying speed, access, and mobility.

- **Florida's Turnpike** offers high-speed, limited-access mobility to Miami-Dade County from points north, terminating at the interchange of I-95 and SR 826.
- The **Homestead Extension of Florida's Turnpike (HEFT)** is a circumferential route around the north and west fringes of the Miami area. The Don Shula Expressway and the East-West Expressway have the most direct access to the HEFT.
- From the north, **I-75** intersects with the HEFT and adjoins the Gratigny Parkway and SR 826.
- Also from the north, **I-95** parallels Florida's Turnpike and terminates just south of the City of Miami Downtown area at U.S. Route 1. It intersects with the Airport and East-West Expressway east of the MIA.
- **I-195** provides direct access from I-95 to Miami Beach, and connects directly into the Airport Expressway at its western terminus.
- **I-395** provides direct access from I-95, SR 836 and Central Miami to Miami Beach.
- The toll-free **Palmetto Expressway (SR 826)** is another circumferential route around the northern and western portions of the Miami-Dade County. It intersects with the Gratigny Parkway and SR 836 west of MIA, and terminates in the south at U.S. Route 1.

- **U.S. Route 1** is an arterial surface street running north-south parallel to sections of both I-95 and SR 874. It connects Key West, Homestead, downtown Miami and Ft. Lauderdale.

## **OVERVIEW OF STUDY APPROACH**

This comprehensive study builds upon data and knowledge assembled from several prior traffic and revenue studies of the MDX system performed by WSA. The following is a summary of the work scope and methods used as part of this study.

### **ANALYSIS OF MDX SYSTEM OPERATING CHARACTERISTICS**

WSA routinely monitors annual and monthly traffic and revenue trends by expressway facility and toll location for the MDX system. This includes a review of short-term economic conditions, patterns of the increasing use of electronic toll collection, and the impact of on-going construction activity on the system. MDX system operating characteristics, such as traffic volumes, method of payment and vehicle class information, are also used both as travel demand model inputs as well as for model calibration purposes. A summary of the analysis of operating trends and characteristics on the MDX system is provided in Chapter 2.

### **REVIEW OF ECONOMIC GROWTH**

A critical element of any traffic and revenue forecast is future socioeconomic projections for the market areas of each Expressway and the region as a whole. WSA obtained the latest official forecasts produced by each of the Miami-Dade, Broward and Palm Beach County Metropolitan Planning Organizations (MPOs). An independent economics subconsultant, Washington Economics Group (WEG), was also retained to provide an independent review of the reasonableness of the socioeconomic forecasts. As a result of this analysis, WEG suggested some revisions in the timing of future growth. These growth rate adjustments were used to develop updated “trip tables” for the study area, which were used in the traffic modeling process.

### **TRAVEL DEMAND MODEL UPDATE**

For use in the analysis, WSA obtained the Southeast Florida Regional Planning Model (SERPM), version 6.5, developed by the District 4 and District 6 offices of the Florida Department of Transportation (FDOT) in coordination with the local MPOs. In consultation with the Florida Department of Transportation, the Miami-Dade MPO, Florida’s Turnpike Enterprise, MDX, and other relevant agencies, the model roadway network was updated to reflect the latest cost-feasible highway improvement program assumptions, including the MDX committed

improvement program. Updated trip tables were developed based on the refined socioeconomic growth rate forecasts provided by WEG. The model was “recalibrated” to reflect year 2008 observed traffic counts collected on the MDX system and alternative routes, to the extent possible. Alternative future year trip tables were also developed based on the updated socioeconomic growth rate assumptions provided by WEG.

#### **ORT TOLL RATE ANALYSES**

WSA initially tested two pricing alternatives at various toll and surcharge rates. These included a two-tier ORT alternative that assumed SunPass<sup>®</sup> and pre-registered video payment options only, and a three-tier ORT alternative that assumed pre-registered and non-registered video options in addition to SunPass<sup>®</sup>. MDX adopted the latter alternative. Under this alternative both pre- and non-registered video tolling customers would be levied a \$0.15 video surcharge per gantry location. In addition, non-registered video customers would also receive a \$3.00 administration fee with their monthly bill. Since toll rates have not been formally adopted by MDX for SR 836 and SR 112 upon conversion to ORT, this study assumed ORT implementation only on SR 924, SR 874 and SR 878.

#### **TRAFFIC AND REVENUE FORECASTS**

Using the updated traffic models, WSA performed traffic assignments at multiple analysis years including FY 2011, FY 2012, FY 2015, FY 2025 and FY 2035. These assignments assumed that ORT implementation occurred only on SR 924, SR 874 and SR 878 in FY 2011. Furthermore, it was assumed that the existing toll collection system was retained on SR 112 and SR 836 during the forecast period. Estimates of traffic and revenue at each of the ORT toll gantry and existing toll plazas were made. In addition, traffic and revenue estimates assuming the existing toll collection system were provided for comparative purposes.

Annual traffic and revenue forecasts for the ORT and the existing toll collection system scenarios were developed by expressway through FY 2035. These were checked for reasonableness, in comparison to historical long-term traffic growth rates as well as capacity constraints on each of the facilities.

#### **SENSITIVITY TEST**

The forecasts provided in this report assume ORT implementation on SR 924, SR 874 and SR 878 only. A sensitivity test was performed to estimate the potential impacts of extending ORT implementation to SR 112 and SR 836, as well.

## CHAPTER 2

# MDX HISTORICAL OPERATING TRENDS AND CHARACTERISTICS

Chapter 2 provides a detailed analysis of historical operating trends on the existing MDX facilities. This includes annual and monthly traffic and revenue patterns, changes in the market share between cash and SunPass® customers, and an evaluation of traffic distribution by vehicle class and method of payment.

### ANNUAL TRANSACTION AND REVENUE TRENDS

Table 2-1 presents a summary of annual toll transaction and revenue trends for fiscal years 1999 through 2009 for each of the four MDX toll facilities. MDX fiscal years run from July 1 to June 30 of the next calendar year. Average daily traffic levels reflect only toll transactions; additional vehicles may use the MDX facilities without passing through a toll plaza and are not included in Table 2-1.

In FY 1999, MDX served its peak number of average daily toll transactions of 215,699. In the following fiscal year, systemwide toll transactions decreased to just over 197,000 per day, a reduction of 8.5 percent. This was primarily due to the doubling of toll rates which took place in July 1999. In FY 2001, systemwide transactions began to grow again, by over 2.7 percent.

Several events occurred in FY 2002 that resulted in a 8.0 percent systemwide decrease of traffic. First, another toll increase was implemented. The second major event was the September 11 terrorist attack. Significant negative impacts were experienced in September and October, with some moderation for the remainder of the fiscal year. This was a nationwide phenomenon and not isolated to MDX facilities. FY 2002 also experienced a deepening of an economic downturn, which, together with increased fears of terrorism, acted to reduce tourism travel in south Florida.

Table 2-1  
Daily Transaction and Annual Revenue Trends

| Fiscal Year <sup>(1)</sup> | Average Daily Transactions |                |                          |                |                          |                |                          |                |                          |                |
|----------------------------|----------------------------|----------------|--------------------------|----------------|--------------------------|----------------|--------------------------|----------------|--------------------------|----------------|
|                            | SR 924                     |                | SR 112                   |                | SR 836                   |                | SR 874                   |                | MDX System               |                |
|                            | Total Daily Transactions   | Percent Change | Total Daily Transactions | Percent Change | Total Daily Transactions | Percent Change | Total Daily Transactions | Percent Change | Total Daily Transactions | Percent Change |
| 1999                       | 36,250                     | 7.4            | 36,908                   | -1.5           | 66,428                   | 1.8            | 76,113                   | 6.3            | 215,699                  | 3.7            |
| 2000 <sup>(2)</sup>        | 32,834                     | -9.4           | 32,084                   | -13.1          | 60,211                   | -9.4           | 72,208                   | -5.1           | 197,337                  | -8.5           |
| 2001                       | 33,878                     | 3.2            | 33,197                   | 3.5            | 61,666                   | 2.4            | 73,948                   | 2.4            | 202,689                  | 2.7            |
| 2002 <sup>(3)</sup>        | 31,319                     | -7.6           | 33,786                   | 1.8            | 54,588                   | -11.5          | 66,878                   | -9.6           | 186,571                  | -8.0           |
| 2003                       | 32,221                     | 2.9            | 32,499                   | -3.8           | 53,144                   | -2.6           | 69,098                   | 3.3            | 186,962                  | 0.2            |
| 2004 <sup>(4)</sup>        | 33,136                     | 2.8            | 33,414                   | 2.8            | 56,268                   | 5.9            | 69,653                   | 0.8            | 192,471                  | 2.9            |
| 2005 <sup>(6)</sup>        | 34,781                     | 5.0            | 32,531                   | -2.6           | 58,633                   | 4.2            | 71,586                   | 2.8            | 197,531                  | 2.6            |
| 2006 <sup>(5)(6)</sup>     | 33,655                     | -3.2           | 29,690                   | -8.7           | 57,726                   | -1.5           | 72,241                   | 0.9            | 193,312                  | -2.1           |
| 2007                       | 33,206                     | -1.3           | 30,443                   | 2.5            | 60,056                   | 4.0            | 75,543                   | 4.6            | 199,248                  | 3.1            |
| 2008 <sup>(7)</sup>        | 32,247                     | -2.9           | 32,648                   | 7.2            | 180,142                  | 200.0          | 78,162                   | 3.5            | 323,199                  | 62.2           |
| 2009                       | 29,969                     | -7.1           | 34,036                   | 4.3            | 176,643                  | -1.9           | 77,491                   | -0.9           | 318,139                  | -1.6           |

Average Annual

Percent Change (AAPC)

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| 1999-2004 | (1.8) | (2.0) | (3.3) | (1.8) | (2.3) |
| 2004-2009 | (2.0) | 0.4   | 25.7  | 2.2   | 10.6  |
| 1999-2009 | (1.9) | (0.8) | 10.3  | 0.2   | 4.0   |

| Fiscal Year <sup>(1)</sup> | Annual Revenues (in thousands) <sup>(8)</sup> |                |                     |                |                     |                |                     |                |                     |                |
|----------------------------|-----------------------------------------------|----------------|---------------------|----------------|---------------------|----------------|---------------------|----------------|---------------------|----------------|
|                            | SR 924                                        |                | SR 112              |                | SR 836              |                | SR 874              |                | MDX System          |                |
|                            | Total Daily Revenue                           | Percent Change | Total Daily Revenue | Percent Change | Total Daily Revenue | Percent Change | Total Daily Revenue | Percent Change | Total Daily Revenue | Percent Change |
| 1999                       | \$ 3,464                                      | 4.5            | \$ 3,573            | -1.5           | \$ 6,274            | 0.4            | \$ 6,993            | 1.5            | \$ 20,304           | 1.1            |
| 2000 <sup>(2)</sup>        | 5,791                                         | 67.2           | 5,727               | 60.3           | 10,750              | 71.3           | 12,036              | 72.1           | 34,304              | 69.0           |
| 2001                       | 6,079                                         | 5.0            | 5,953               | 3.9            | 11,029              | 2.6            | 12,651              | 5.1            | 35,712              | 4.1            |
| 2002 <sup>(3)</sup>        | 8,123                                         | 33.6           | 5,941               | -0.2           | 14,566              | 32.1           | 17,071              | 34.9           | 45,701              | 28.0           |
| 2003                       | 8,177                                         | 0.7            | 5,854               | -1.5           | 13,480              | -7.5           | 16,726              | -2.0           | 44,237              | -3.2           |
| 2004 <sup>(4)</sup>        | 9,050                                         | 10.7           | 6,285               | 7.4            | 14,951              | 10.9           | 18,445              | 10.3           | 48,731              | 10.2           |
| 2005 <sup>(6)</sup>        | 10,932                                        | 20.8           | 7,157               | 13.9           | 17,359              | 16.1           | 20,857              | 13.1           | 56,305              | 15.5           |
| 2006 <sup>(5)(6)</sup>     | 13,232                                        | 21.0           | 11,436              | 59.8           | 22,042              | 27.0           | 26,898              | 29.0           | 73,608              | 30.7           |
| 2007                       | 13,468                                        | 1.8            | 12,050              | 5.4            | 23,441              | 6.3            | 29,206              | 8.6            | 78,165              | 6.2            |
| 2008 <sup>(7)</sup>        | 12,921                                        | -4.1           | 12,894              | 7.0            | 52,380              | 123.5          | 29,990              | 2.7            | 108,185             | 38.4           |
| 2009                       | 11,749                                        | -9.1           | 13,102              | 1.6            | 50,754              | -3.1           | 28,980              | -3.4           | 104,585             | -3.3           |

Average Annual

Percent Change (AAPC)

|           |      |      |      |      |      |
|-----------|------|------|------|------|------|
| 1999-2004 | 21.2 | 12.0 | 19.0 | 21.4 | 19.1 |
| 2004-2009 | 5.4  | 15.8 | 27.7 | 9.5  | 16.5 |
| 1999-2009 | 13.0 | 13.9 | 23.3 | 15.3 | 17.8 |

<sup>(1)</sup> Fiscal year is 12 months from July 1 through June 30.

<sup>(2)</sup> Tolls increase in July 1999 from \$0.25 to \$0.50.

<sup>(3)</sup> Tolls increased in July 2001 from \$0.50 to \$0.75 at all plazas except S.R. 112.

<sup>(4)</sup> Cash tolls increased by \$0.25 systemwide; SunPass nominal rates unchanged.

<sup>(5)</sup> Tolls increased to \$1.25 (cash) and \$1.00 (SunPass) at all plazas in July 2005.

<sup>(6)</sup> Due to hurricane related toll suspensions, average daily transactions in 2004/05 based on 359 days of operation; 2005/06 based on 356 days of operation.

<sup>(7)</sup> Tolling on new mainline toll plaza on SR 836 west of NW 97th Avenue and Extension to NW 137th Avenue begins July 1, 2007.

<sup>(8)</sup> Annual revenue excludes revenue recovered through violation enforcement.

Source: Miami-Dade Expressway Authority



In FY 2003, major reconstruction activity took place at the toll plazas on SR 836 and SR 874. This had a significant negative impact on traffic growth. Additional negative impacts resulted from a complete replacement of plaza toll technology systems and the deployment of dedicated and express SunPass<sup>®</sup> lanes.

Modest gains in systemwide transactions were produced by FY 2004 and FY 2005 with average daily toll transactions growing by 2.9 and 2.6 percent, respectively. While these growth rates are reflective of a strong regional economy, growth in FY 2005 was lower than anticipated due to rapid increases in motor fuel prices which may have suppressed traffic growth by one to two percent.

Traffic decreased by 2.1 percent in FY 2006. This was primarily due to the July 1, 2005 rate increase. Tolls were increased by an average of 85 percent on SR 112, and an average of 30 percent on each of the other three expressways. There was also a significant negative impact resulting from the suspension of tolls in late September and October 2005 due to hurricanes. Average daily transactions on SR 112 decreased by 8.7 percent. Decreases of 1.5 and 3.2 percent occurred on SR 836 and SR 924, respectively. Annual traffic on SR 874 increased slightly, due, in part, to motorists using SR 874 and SR 826 to avoid construction activity on SR 836 west of SR 826.

Average daily transactions increased by 3.1 percent systemwide during FY 2007. Daily transactions on SR 874 and SR 836 led the increases at 4.6 percent and 4.0 percent, respectively. Only SR 924 experienced a traffic decline over the prior year at 1.3 percent.

With the opening of the new mainline toll plaza on SR 836 west of NW 97<sup>th</sup> Avenue and the SR 836 Extension between SW 137<sup>th</sup> Street and the HEFT, systemwide transactions grew by 62.2 percent to 323,198 in FY 2008. On SR 836, average daily transactions increased by 200.0 percent from 60,056 in FY 2007 to 180,142 in FY 2008.

The continued effects of the economic recession affecting Miami-Dade, Broward, and Palm Beach Counties were felt in FY 2009. These included further reductions in vehicle miles of travel, lower levels of employment and higher unemployment rates over FY 2008, and significantly fewer reported building permits for single family units. All this contributed to the 1.6 percent decrease in average daily transactions that occurred in FY 2009. Except for SR 112, all MDX facilities experienced traffic declines, led by SR 924 with a 7.1 percent loss of traffic.

Aided by the series of rate increases beginning in FY 2000, average annual revenue has increased significantly over the same period. Revenue in FY 2006 was up by 30.7 percent from the prior fiscal year. Revenue on SR 112 increased by 59.8 percent. Systemwide revenues increased again in FY 2007 by 6.2 percent and in FY 2008 by 38.4 percent. Almost all of this growth occurred on SR 836, which experienced an increase in revenue of 123.5 percent. Systemwide revenues in FY 2009 were down by 3.3 percent over FY 2008.

Overall, average daily toll transactions grew by an average of 4.0 percent per fiscal year systemwide between FY 1999 and FY 2009, while revenue grew by an average annual rate of 17.8 percent. This growth in traffic and revenue was primarily the result of system expansion—such as the new NW 97<sup>th</sup> Avenue mainline plaza and the mainline Extension to SW 137 Avenue on SR 836—and four toll rate increases over the ten year period.

## MONTHLY TRANSACTION AND TOLL REVENUE TRENDS

Monthly transaction and toll revenue trends have been assembled for each of the four toll facilities for the last seven fiscal years plus the first nine months of the current fiscal year. These statistics are useful in identifying the impacts of rate increases, construction, economic climate, non-recurring incidents such as weather, and other special events.

### **S.R. 924 – GRATIGNY PARKWAY**

Monthly traffic and revenue trends between FY 2003 and FY 2010 are shown for Gratigny Parkway in Table 2-2. Between FY 2003 and FY 2005, traffic grew by 2.4 percent and 3.3 percent, respectively. Due to the toll change that occurred in July 2005, FY 2006 traffic declined by 4.1 percent while revenue increased by 21.0 percent. Revenue in FY 2006 reached more than \$13.2 million, notwithstanding the October 2005 hurricane-related toll suspensions.

During the last two fiscal years, traffic declined by 2.6 percent and 7.3 percent, respectively, while revenue was down by 4.1 percent and 9.1 percent. The decreases were due in part to the reduced use of SR 924 by commuters from Broward County, which experienced decreases in total population and employment levels during the recent recession.

During the first ten months of FY 2010, traffic was down 1.8 percent from the same period during FY 2009, while revenues were 3.3 percent lower. This decrease in traffic is primarily due to the impact of repaving and other construction projects on SR 924 that began in December 2010.

**Table 2-2**  
**Monthly Transactions and Toll Revenue Trends**  
**SR 924 - Gratigny Parkway**  
**FY 2003 Through FY 2010 <sup>(1)</sup>**

| Transactions |                        |                |            |                |            |                |                        |                |            |                |            |                |            |                      |           |
|--------------|------------------------|----------------|------------|----------------|------------|----------------|------------------------|----------------|------------|----------------|------------|----------------|------------|----------------------|-----------|
| Month        | FY 2003 <sup>(2)</sup> | Percent Change | FY 2004    | Percent Change | FY 2005    | Percent Change | FY 2006 <sup>(3)</sup> | Percent Change | FY 2007    | Percent Change | FY 2008    | Percent Change | FY 2009    | Percent Change       | FY 2010   |
| July         | 1,004,191              | (2.3)          | 980,991    | 0.3            | 984,074    | (4.2)          | 942,852                | (0.4)          | 939,479    | 0.4            | 943,222    | (5.2)          | 894,462    | (1.1)                | 884,922   |
| August       | 983,433                | (4.0)          | 944,405    | 6.3            | 1,003,570  | (0.3)          | 1,000,299              | (0.6)          | 994,625    | 1.9            | 1,013,579  | (16.9)         | 842,513    | 3.1                  | 869,052   |
| September    | 982,463                | 1.2            | 994,315    | (11.2)         | 882,607    | 8.4            | 957,034                | 6.9            | 1,022,807  | (6.5)          | 955,991    | (3.4)          | 923,519    | (1.5)                | 909,728   |
| October      | 1,084,580              | (2.7)          | 1,055,748  | 1.1            | 1,067,820  | (31.4)         | 732,044                | 46.6           | 1,073,077  | (1.2)          | 1,059,716  | (8.4)          | 970,400    | (1.7)                | 953,663   |
| November     | 932,865                | 1.1            | 942,718    | 10.2           | 1,038,942  | (2.8)          | 1,010,204              | (0.5)          | 1,005,081  | (1.6)          | 988,619    | (12.9)         | 860,621    | 0.2                  | 862,254   |
| December     | 911,760                | 9.8            | 1,001,501  | 2.9            | 1,030,615  | (1.3)          | 1,017,182              | (5.5)          | 960,916    | (3.0)          | 932,298    | (2.8)          | 905,946    | (3.5)                | 874,648   |
| January      | 986,094                | 3.9            | 1,024,211  | 4.1            | 1,065,840  | (0.7)          | 1,058,297              | (2.2)          | 1,035,019  | (3.4)          | 999,971    | (8.2)          | 918,079    | (3.8)                | 883,635   |
| February     | 959,833                | 6.4            | 1,021,662  | 1.4            | 1,036,430  | (2.5)          | 1,010,726              | (1.6)          | 994,936    | 0.4            | 998,655    | (10.2)         | 896,566    | (3.8)                | 862,422   |
| March        | 1,027,050              | 6.3            | 1,091,519  | 5.7            | 1,153,233  | 0.8            | 1,162,009              | (4.9)          | 1,104,948  | (7.2)          | 1,025,515  | (3.0)          | 994,828    | (3.7)                | 957,680   |
| April        | 975,264                | 5.8            | 1,032,072  | 6.5            | 1,099,486  | (7.2)          | 1,020,853              | (1.9)          | 1,000,951  | 0.8            | 1,008,899  | (6.4)          | 944,519    | (1.7)                | 928,092   |
| May          | 1,007,177              | (0.4)          | 1,003,219  | 8.2            | 1,085,093  | (1.8)          | 1,066,057              | (2.6)          | 1,038,258  | (6.0)          | 976,318    | (7.9)          | 899,046    | -                    | -         |
| June         | 956,354                | 4.8            | 1,002,428  | 4.0            | 1,042,325  | (3.7)          | 1,003,517              | (5.3)          | 950,094    | (5.3)          | 899,507    | (1.3)          | 888,182    | -                    | -         |
| Total        | 11,811,065             | 2.4            | 12,094,789 | 3.3            | 12,490,035 | (4.1)          | 11,981,074             | 1.2            | 12,120,191 | (2.6)          | 11,802,290 | (7.3)          | 10,938,681 | (1.8) <sup>(4)</sup> | 8,986,096 |

| Toll Revenue <sup>(5)</sup> |                        |                |              |                |               |                |                        |                |               |                |               |                |               |                      |              |
|-----------------------------|------------------------|----------------|--------------|----------------|---------------|----------------|------------------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------------|--------------|
| Month                       | FY 2003 <sup>(2)</sup> | Percent Change | FY 2004      | Percent Change | FY 2005       | Percent Change | FY 2006 <sup>(3)</sup> | Percent Change | FY 2007       | Percent Change | FY 2008       | Percent Change | FY 2009       | Percent Change       | FY 2010      |
| July                        | \$ 695,193             | (3.8)          | \$ 668,849   | 28.9           | \$ 862,019    | 19.4           | \$ 1,029,530           | 2.0            | \$ 1,050,318  | (0.4)          | \$ 1,045,599  | (6.7)          | \$ 976,062    | (2.8)                | \$ 949,066   |
| August                      | 680,822                | (3.8)          | 654,842      | 33.7           | 875,573       | 25.3           | 1,097,451              | 0.3            | 1,100,612     | 1.8            | 1,120,444     | (18.1)         | 917,098       | 1.2                  | 927,980      |
| September                   | 680,151                | 1.9            | 692,915      | 10.5           | 765,787       | 36.6           | 1,046,357              | 10.2           | 1,152,618     | (9.2)          | 1,046,355     | (5.0)          | 993,738       | (3.4)                | 960,094      |
| October                     | 750,846                | (2.4)          | 732,651      | 27.5           | 934,007       | (14.1)         | 802,637                | 45.4           | 1,166,814     | (0.5)          | 1,160,703     | (10.1)         | 1,043,079     | (3.4)                | 1,007,656    |
| November                    | 645,815                | 1.0            | 652,064      | 40.4           | 915,475       | 21.1           | 1,108,924              | 0.7            | 1,117,008     | (2.8)          | 1,085,257     | (14.5)         | 927,967       | (1.4)                | 915,101      |
| December                    | 631,203                | 10.0           | 694,051      | 30.7           | 907,153       | 23.4           | 1,119,213              | (4.1)          | 1,073,067     | (4.4)          | 1,025,556     | (4.9)          | 975,579       | (4.5)                | 932,056      |
| January                     | 682,664                | 3.6            | 707,076      | 32.3           | 935,339       | 24.1           | 1,161,193              | (1.4)          | 1,145,409     | (4.3)          | 1,096,616     | (10.5)         | 981,320       | (5.1)                | 931,649      |
| February                    | 664,484                | 6.3            | 706,048      | 28.7           | 908,540       | 23.9           | 1,126,067              | (2.4)          | 1,098,624     | (0.7)          | 1,090,873     | (12.0)         | 960,121       | (5.3)                | 909,132      |
| March                       | 711,018                | 26.9           | 902,400      | 11.8           | 1,009,274     | 28.0           | 1,291,819              | (4.8)          | 1,230,078     | (8.8)          | 1,121,515     | (5.3)          | 1,062,320     | (4.7)                | 1,012,343    |
| April                       | 668,458                | 33.7           | 893,782      | 8.1            | 966,027       | 17.5           | 1,135,438              | (1.8)          | 1,114,463     | (0.9)          | 1,104,337     | (8.5)          | 1,010,020     | (3.2)                | 977,410      |
| May                         | 701,699                | 24.5           | 873,851      | 8.6            | 948,663       | 25.3           | 1,189,012              | (2.6)          | 1,158,205     | (9.5)          | 1,048,564     | (9.2)          | 952,143       | -                    | -            |
| June                        | 664,345                | 31.2           | 871,855      | 3.7            | 904,129       | 24.3           | 1,123,957              | (5.6)          | 1,060,944     | (8.0)          | 975,593       | (2.8)          | 948,080       | -                    | -            |
| Total                       | \$ 8,176,698           | 10.7           | \$ 9,050,384 | 20.8           | \$ 10,931,986 | 21.0           | \$ 13,231,598          | 1.8            | \$ 13,468,160 | (4.1)          | \$ 12,921,412 | (9.1)          | \$ 11,747,527 | (3.3) <sup>(4)</sup> | \$ 9,522,487 |

<sup>(1)</sup> Fiscal year is 12 months ending June 30.

<sup>(2)</sup> Cash tolls increased by \$0.25 systemwide; SunPass nominal rates unchanged.

<sup>(3)</sup> Tolls increased to \$1.25 (cash) and \$1.00 (SunPass) at all plazas in July 2005.

<sup>(4)</sup> Represents the percent change in fiscal year 2010 year-to-date versus same period in prior fiscal year.

<sup>(5)</sup> Annual revenue excludes revenue recovered through violation enforcement.

Source: Miami-Dade Expressway Authority

### **SR 112 – AIRPORT EXPRESSWAY**

Table 2-3 presents monthly transactions and toll revenue for SR 112, the Airport Expressway. Between FY 2003 and FY 2006, transactions declined each year by 0.1 percent, 4.2 percent and 9.5 percent, respectively. Some of the decreases were related to toll changes implemented in March 2004 (cash tolls only) and July 2005. There was also a significant negative impact in September 2004 due to toll suspension for hurricanes and again in October 2005 for the same reason. Additionally, SR 112 experienced significant construction impacts during FY 2005. Recovery from the traffic decrease is shown in FY 2007, although some of this was influenced by the 48 percent increase in October 2006, reflecting a recovery from hurricane-related losses in October 2005.

In spite of the economic recession which severely impacted south Florida, and fuel prices approaching \$4.00, transactions on SR 112 increased by 7.5 percent in FY 2008 to 11.9 million. FY 2009 transactions increased by an additional 4.0 percent, topping the 12.0 million mark for the first time since FY 2004. Year-to-date transactions, including data for the first ten months of FY 2010, are up 2.3 percent.

Revenues have increased steadily on SR 112, almost doubling between FY 2003 and FY 2006 from almost \$5.9 million to over \$11.4 million. Revenue has continued to increase each year since FY 2006, reaching more than \$13.1 million in FY 2009. Year-to-date revenue for FY 2010 is 0.3 percent greater than the same time period of the prior fiscal year.

### **SR 836 – EAST-WEST EXPRESSWAY**

Table 2-4 presents monthly transactions and toll revenue for SR 836, the East-West Expressway. Traffic and revenue trends increase significantly beginning in July 2007 resulting from the newly constructed NW 97<sup>th</sup> Avenue mainline toll plaza and the electronic toll collection (ETC) gantry on the SR 836 Extension to SW 137<sup>th</sup> Avenue.

Cash tolls were increased in March 2004, and again for all methods of payment in July 2005. While not shown in Table 2-4, it should be noted that the roughly 19.6 million transactions in FY 2003 represented a decrease of 2.4 percent over the prior fiscal year, primarily due to major reconstruction of the mainline toll plaza and the 17<sup>th</sup> Avenue Interchange. The expressway showed strong recovery in FY 2004, notwithstanding the rate increase. However, this was against suppressed traffic levels for the prior fiscal year due to construction impacts. During FY 2006, transactions declined by 2.4 percent, largely due to the 29 percent increase in tolls. Transactions increased by 6.7 percent in FY 2007 aided by a drop in motor fuel prices from September 2006 through March 2007.

**Table 2-3**  
**Monthly Transactions and Toll Revenue Trends**  
**SR 112 - Airport Expressway**  
**FY 2003 Through FY 2010 <sup>(1)</sup>**

| <b>Transactions</b> |                               |                       |                   |                       |                   |                       |                               |                       |                   |                       |                   |                       |                   |                           |                   |
|---------------------|-------------------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|---------------------------|-------------------|
| <b>Month</b>        | <b>FY 2003 <sup>(2)</sup></b> | <b>Percent Change</b> | <b>FY 2004</b>    | <b>Percent Change</b> | <b>FY 2005</b>    | <b>Percent Change</b> | <b>FY 2006 <sup>(3)</sup></b> | <b>Percent Change</b> | <b>FY 2007</b>    | <b>Percent Change</b> | <b>FY 2008</b>    | <b>Percent Change</b> | <b>FY 2009</b>    | <b>Percent Change</b>     | <b>FY 2010</b>    |
| July                | 1,047,230                     | 2.5                   | 1,073,280         | (8.3)                 | 984,450           | (5.9)                 | 925,907                       | (17.6)                | 762,766           | 29.9                  | 990,750           | 2.9                   | 1,019,321         | 7.8                       | 1,098,956         |
| August              | 1,083,528                     | (3.4)                 | 1,046,997         | (8.4)                 | 959,306           | (7.6)                 | 886,084                       | (17.1)                | 734,480           | 38.6                  | 1,017,913         | (3.9)                 | 978,200           | 2.3                       | 1,000,767         |
| September           | 963,127                       | 0.9                   | 971,914           | (25.7)                | 722,167           | 12.9                  | 815,653                       | (1.6)                 | 802,631           | 10.6                  | 887,807           | 9.0                   | 967,370           | 1.8                       | 984,421           |
| October             | 1,054,641                     | (0.7)                 | 1,047,609         | (8.2)                 | 962,063           | (33.4)                | 641,041                       | 47.5                  | 945,653           | (0.2)                 | 943,445           | 10.8                  | 1,045,553         | 1.4                       | 1,060,529         |
| November            | 1,001,157                     | (3.1)                 | 970,533           | (3.1)                 | 940,769           | (7.8)                 | 867,402                       | 6.3                   | 921,973           | 5.8                   | 975,429           | (0.2)                 | 973,859           | 2.6                       | 998,845           |
| December            | 1,068,707                     | (3.1)                 | 1,035,354         | (4.4)                 | 989,444           | (6.9)                 | 921,412                       | 3.1                   | 949,835           | 3.9                   | 986,703           | 6.1                   | 1,047,106         | 1.5                       | 1,063,232         |
| January             | 1,024,753                     | 1.1                   | 1,035,969         | (1.7)                 | 1,018,630         | (10.1)                | 916,105                       | 9.0                   | 998,551           | 2.1                   | 1,019,316         | 3.4                   | 1,053,651         | 3.1                       | 1,086,648         |
| February            | 951,478                       | 5.9                   | 1,007,791         | (5.5)                 | 952,809           | (8.8)                 | 869,009                       | 9.4                   | 950,472           | 4.0                   | 988,107           | 1.5                   | 1,003,360         | 2.2                       | 1,025,267         |
| March               | 1,050,449                     | 2.2                   | 1,073,525         | 2.3                   | 1,097,736         | (7.1)                 | 1,019,943                     | 6.1                   | 1,082,141         | (0.8)                 | 1,073,545         | 6.0                   | 1,138,258         | 2.0                       | 1,160,689         |
| April               | 1,011,739                     | (1.5)                 | 996,870           | 2.8                   | 1,024,695         | (10.4)                | 917,938                       | 8.2                   | 993,158           | 4.4                   | 1,037,048         | 6.1                   | 1,100,271         | (1.2)                     | 1,087,232         |
| May                 | 977,680                       | 0.4                   | 981,742           | 6.0                   | 1,040,297         | (9.7)                 | 939,299                       | 6.7                   | 1,002,485         | 4.4                   | 1,047,092         | 1.4                   | 1,062,244         | -                         | -                 |
| June                | 976,135                       | (2.2)                 | 954,191           | 3.4                   | 986,421           | (13.9)                | 849,686                       | 13.9                  | 967,438           | 1.5                   | 981,914           | 5.3                   | 1,034,070         | -                         | -                 |
| <b>Total</b>        | <b>12,210,624</b>             | <b>(0.1)</b>          | <b>12,195,775</b> | <b>(4.2)</b>          | <b>11,678,787</b> | <b>(9.5)</b>          | <b>10,569,479</b>             | <b>5.1</b>            | <b>11,111,583</b> | <b>7.5</b>            | <b>11,949,069</b> | <b>4.0</b>            | <b>12,423,263</b> | <b>2.3 <sup>(4)</sup></b> | <b>10,566,586</b> |

| <b>Toll Revenue <sup>(5)</sup></b> |                               |                       |                     |                       |                     |                       |                               |                       |                      |                       |                      |                       |                      |                           |                      |
|------------------------------------|-------------------------------|-----------------------|---------------------|-----------------------|---------------------|-----------------------|-------------------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|---------------------------|----------------------|
| <b>Month</b>                       | <b>FY 2003 <sup>(2)</sup></b> | <b>Percent Change</b> | <b>FY 2004</b>      | <b>Percent Change</b> | <b>FY 2005</b>      | <b>Percent Change</b> | <b>FY 2006 <sup>(3)</sup></b> | <b>Percent Change</b> | <b>FY 2007</b>       | <b>Percent Change</b> | <b>FY 2008</b>       | <b>Percent Change</b> | <b>FY 2009</b>       | <b>Percent Change</b>     | <b>FY 2010</b>       |
| July                               | \$ 502,104                    | 0.6                   | \$ 504,974          | 21.0                  | \$ 611,226          | 68.1                  | \$ 1,027,621                  | (18.7)                | \$ 835,879           | 29.1                  | \$ 1,079,123         | 0.7                   | \$ 1,086,259         | 5.3                       | \$ 1,143,314         |
| August                             | 519,507                       | (3.7)                 | 500,244             | 18.4                  | 592,064             | 64.1                  | 971,743                       | (17.1)                | 805,963              | 36.9                  | 1,103,605            | (5.8)                 | 1,039,669            | 2.4                       | 1,064,886            |
| September                          | 461,780                       | (1.1)                 | 456,900             | (3.7)                 | 440,197             | 100.3                 | 881,759                       | (0.3)                 | 879,115              | 9.1                   | 959,308              | 6.6                   | 1,023,051            | (0.1)                     | 1,021,887            |
| October                            | 505,657                       | (2.2)                 | 494,533             | 20.0                  | 593,195             | 14.0                  | 676,373                       | 49.6                  | 1,011,785            | 1.3                   | 1,024,729            | 7.8                   | 1,105,041            | (0.7)                     | 1,096,924            |
| November                           | 480,014                       | (5.5)                 | 453,482             | 28.0                  | 580,445             | 61.3                  | 936,174                       | 6.2                   | 994,436              | 6.2                   | 1,055,604            | (1.8)                 | 1,036,804            | 0.3                       | 1,040,080            |
| December                           | 512,401                       | (4.1)                 | 491,200             | 25.5                  | 616,475             | 58.9                  | 979,570                       | 7.4                   | 1,051,688            | 1.4                   | 1,065,970            | 4.6                   | 1,115,004            | (1.1)                     | 1,103,024            |
| January                            | 491,327                       | (1.6)                 | 483,341             | 30.3                  | 629,554             | 56.7                  | 986,552                       | 8.9                   | 1,073,904            | 2.3                   | 1,099,013            | 1.6                   | 1,116,903            | (0.7)                     | 1,109,036            |
| February                           | 456,194                       | 2.1                   | 465,820             | 24.8                  | 581,552             | 63.1                  | 948,485                       | 7.6                   | 1,020,803            | 4.3                   | 1,065,000            | (1.1)                 | 1,052,990            | 0.2                       | 1,055,080            |
| March                              | 503,647                       | 24.8                  | 628,721             | 6.2                   | 667,484             | 65.3                  | 1,103,287                     | 5.2                   | 1,160,368            | (0.4)                 | 1,155,221            | 3.6                   | 1,196,379            | 0.4                       | 1,200,749            |
| April                              | 471,928                       | 28.0                  | 603,913             | 2.5                   | 618,889             | 61.4                  | 998,987                       | 8.0                   | 1,078,924            | 3.3                   | 1,114,182            | 3.2                   | 1,149,496            | (2.8)                     | 1,117,174            |
| May                                | 483,906                       | 24.4                  | 602,205             | 4.4                   | 628,465             | 61.8                  | 1,016,730                     | 7.0                   | 1,087,439            | 3.3                   | 1,123,157            | (1.9)                 | 1,102,130            | -                         | -                    |
| June                               | 466,027                       | 28.8                  | 600,087             | (0.4)                 | 597,896             | 52.0                  | 909,039                       | 15.5                  | 1,049,604            | (0.0)                 | 1,049,271            | 2.8                   | 1,078,748            | -                         | -                    |
| <b>Total</b>                       | <b>\$ 5,854,492</b>           | <b>7.4</b>            | <b>\$ 6,285,420</b> | <b>13.9</b>           | <b>\$ 7,157,442</b> | <b>59.8</b>           | <b>\$ 11,436,320</b>          | <b>5.4</b>            | <b>\$ 12,049,908</b> | <b>7.0</b>            | <b>\$ 12,894,183</b> | <b>1.6</b>            | <b>\$ 13,102,474</b> | <b>0.3 <sup>(4)</sup></b> | <b>\$ 10,952,154</b> |

<sup>(1)</sup> Fiscal year is 12 months ending June 30.

<sup>(2)</sup> Cash tolls increased by \$0.25 systemwide; SunPass nominal rates unchanged.

<sup>(3)</sup> Tolls increased to \$1.25 (cash) and \$1.00 (SunPass) at all plazas in July 2005.

<sup>(4)</sup> Represents the percent change in fiscal year 2010 year-to-date versus same period in prior fiscal year.

<sup>(5)</sup> Annual revenue excludes revenue recovered through violation enforcement.

Source: Miami-Dade Expressway Authority

**Table 2-4**  
**Monthly Transactions and Toll Revenue Trends**  
**SR 836 - East-West Expressway**  
**FY 2003 Through FY 2010 <sup>(1)</sup>**

| <b>Transactions</b> |                               |                       |                |                       |                |                       |                               |                       |                |                       |                               |                       |                |                       |                |
|---------------------|-------------------------------|-----------------------|----------------|-----------------------|----------------|-----------------------|-------------------------------|-----------------------|----------------|-----------------------|-------------------------------|-----------------------|----------------|-----------------------|----------------|
| <b>Month</b>        | <b>FY 2003 <sup>(2)</sup></b> | <b>Percent Change</b> | <b>FY 2004</b> | <b>Percent Change</b> | <b>FY 2005</b> | <b>Percent Change</b> | <b>FY 2006 <sup>(3)</sup></b> | <b>Percent Change</b> | <b>FY 2007</b> | <b>Percent Change</b> | <b>FY 2008 <sup>(4)</sup></b> | <b>Percent Change</b> | <b>FY 2009</b> | <b>Percent Change</b> | <b>FY 2010</b> |
| July                | 1,700,534                     | (1.8)                 | 1,669,251      | 6.7                   | 1,780,948      | (2.0)                 | 1,745,348                     | 1.5                   | 1,771,676      | 220.5                 | 5,678,582                     | (6.1)                 | 5,332,810      | 3.1                   | 5,498,002      |
| August              | 1,698,806                     | (3.8)                 | 1,633,484      | 5.8                   | 1,727,713      | (2.0)                 | 1,693,964                     | 2.5                   | 1,735,698      | 226.1                 | 5,660,961                     | (9.7)                 | 5,112,534      | 6.5                   | 5,444,916      |
| September           | 1,572,637                     | (0.2)                 | 1,569,844      | (14.4)                | 1,344,564      | 21.0                  | 1,626,746                     | 7.1                   | 1,742,234      | 189.7                 | 5,047,482                     | 3.3                   | 5,212,195      | 1.1                   | 5,271,075      |
| October             | 1,698,068                     | 0.3                   | 1,703,433      | 6.6                   | 1,816,097      | (31.8)                | 1,238,770                     | 50.0                  | 1,858,590      | 199.2                 | 5,560,874                     | (1.4)                 | 5,484,637      | 3.9                   | 5,696,085      |
| November            | 1,648,662                     | (1.3)                 | 1,626,894      | 8.0                   | 1,756,793      | (2.4)                 | 1,714,557                     | 3.8                   | 1,779,376      | 202.9                 | 5,390,448                     | (3.2)                 | 5,219,178      | 2.8                   | 5,367,427      |
| December            | 1,655,031                     | 3.3                   | 1,708,985      | 4.6                   | 1,787,022      | (1.0)                 | 1,768,319                     | 2.9                   | 1,820,461      | 202.9                 | 5,514,142                     | (0.1)                 | 5,508,977      | 1.4                   | 5,585,466      |
| January             | 1,568,829                     | 10.5                  | 1,733,646      | 3.4                   | 1,792,511      | (0.2)                 | 1,789,399                     | 4.7                   | 1,872,866      | 193.4                 | 5,494,298                     | (1.7)                 | 5,400,158      | 0.7                   | 5,435,587      |
| February            | 1,484,292                     | 16.1                  | 1,722,597      | 0.2                   | 1,725,490      | (2.0)                 | 1,690,642                     | 3.6                   | 1,751,964      | 208.0                 | 5,396,017                     | (5.3)                 | 5,107,869      | 2.0                   | 5,207,913      |
| March               | 1,682,609                     | 11.2                  | 1,870,637      | 3.5                   | 1,936,342      | 0.2                   | 1,939,309                     | 3.7                   | 2,010,203      | 185.7                 | 5,743,858                     | (0.1)                 | 5,739,836      | 3.3                   | 5,930,934      |
| April               | 1,610,247                     | 9.9                   | 1,770,442      | 3.1                   | 1,824,692      | (1.5)                 | 1,798,058                     | 4.1                   | 1,870,917      | 200.1                 | 5,614,062                     | (1.2)                 | 5,545,337      | 2.6                   | 5,689,941      |
| May                 | 1,663,365                     | 7.7                   | 1,791,663      | 2.5                   | 1,836,936      | (1.4)                 | 1,811,659                     | 5.7                   | 1,914,178      | 194.0                 | 5,628,492                     | (2.4)                 | 5,494,260      | -                     | -              |
| June                | 1,575,749                     | 10.2                  | 1,737,190      | (1.0)                 | 1,719,990      | 0.8                   | 1,733,882                     | 3.4                   | 1,792,299      | 190.3                 | 5,202,675                     | 2.2                   | 5,316,855      | -                     | -              |
| Total               | 19,558,829                    | 5.0                   | 20,538,066     | 2.5                   | 21,049,098     | (2.4)                 | 20,550,653                    | 6.7                   | 21,920,462     | 200.8                 | 65,931,891                    | (2.2)                 | 64,474,646     | 2.7 <sup>(5)</sup>    | 55,127,346     |

| <b>Toll Revenue <sup>(6)</sup></b> |                               |                       |                |                       |                |                       |                               |                       |                |                       |                               |                       |                |                       |                |
|------------------------------------|-------------------------------|-----------------------|----------------|-----------------------|----------------|-----------------------|-------------------------------|-----------------------|----------------|-----------------------|-------------------------------|-----------------------|----------------|-----------------------|----------------|
| <b>Month</b>                       | <b>FY 2003 <sup>(2)</sup></b> | <b>Percent Change</b> | <b>FY 2004</b> | <b>Percent Change</b> | <b>FY 2005</b> | <b>Percent Change</b> | <b>FY 2006 <sup>(3)</sup></b> | <b>Percent Change</b> | <b>FY 2007</b> | <b>Percent Change</b> | <b>FY 2008 <sup>(4)</sup></b> | <b>Percent Change</b> | <b>FY 2009</b> | <b>Percent Change</b> | <b>FY 2010</b> |
| July                               | \$ 1,172,021                  | (4.0)                 | \$ 1,125,148   | 30.9                  | \$ 1,473,172   | 25.6                  | \$ 1,850,349                  | 3.2                   | \$ 1,910,329   | 127.8                 | \$ 4,352,140                  | (2.6)                 | \$ 4,239,790   | 1.9                   | \$ 4,320,894   |
| August                             | 1,170,830                     | (6.1)                 | 1,099,072      | 29.0                  | 1,417,902      | 27.8                  | 1,812,053                     | 2.7                   | 1,861,648      | 138.8                 | 4,445,186                     | (9.1)                 | 4,042,076      | 5.9                   | 4,279,406      |
| September                          | 1,083,874                     | (1.9)                 | 1,063,615      | 2.5                   | 1,090,612      | 59.4                  | 1,738,739                     | 7.8                   | 1,873,902      | 118.6                 | 4,096,045                     | (0.5)                 | 4,076,202      | 0.5                   | 4,097,173      |
| October                            | 1,170,321                     | (1.4)                 | 1,153,997      | 29.8                  | 1,497,983      | (10.2)                | 1,345,532                     | 47.7                  | 1,987,638      | 123.7                 | 4,446,954                     | (3.1)                 | 4,308,389      | 3.0                   | 4,437,252      |
| November                           | 1,136,271                     | (2.8)                 | 1,104,721      | 28.8                  | 1,423,224      | 29.0                  | 1,836,190                     | 3.8                   | 1,905,306      | 125.3                 | 4,293,004                     | (4.0)                 | 4,120,376      | 1.3                   | 4,172,865      |
| December                           | 1,140,661                     | 3.0                   | 1,175,247      | 26.1                  | 1,481,484      | 28.4                  | 1,902,492                     | 2.7                   | 1,953,990      | 124.2                 | 4,381,363                     | (0.9)                 | 4,341,345      | (0.2)                 | 4,331,399      |
| January                            | 1,081,249                     | 9.5                   | 1,183,919      | 25.3                  | 1,483,938      | 29.2                  | 1,916,632                     | 4.7                   | 2,006,979      | 116.3                 | 4,340,943                     | (2.2)                 | 4,244,715      | (1.0)                 | 4,201,363      |
| February                           | 1,022,985                     | 14.9                  | 1,175,300      | 20.9                  | 1,421,113      | 29.0                  | 1,833,039                     | 2.3                   | 1,876,107      | 129.1                 | 4,297,979                     | (6.4)                 | 4,021,083      | 0.1                   | 4,025,826      |
| March                              | 1,159,667                     | 29.4                  | 1,500,147      | 6.6                   | 1,599,061      | 30.2                  | 2,081,773                     | 2.2                   | 2,127,717      | 116.3                 | 4,602,534                     | (1.7)                 | 4,524,877      | 1.7                   | 4,600,636      |
| April                              | 1,108,714                     | 31.2                  | 1,454,647      | 4.3                   | 1,516,954      | 27.6                  | 1,934,878                     | 3.1                   | 1,995,219      | 124.7                 | 4,483,126                     | (2.8)                 | 4,358,768      | 0.6                   | 4,383,542      |
| May                                | 1,148,534                     | 29.3                  | 1,484,597      | 3.1                   | 1,530,453      | 26.5                  | 1,935,321                     | 5.3                   | 2,038,816      | 120.7                 | 4,500,140                     | (4.6)                 | 4,295,373      | -                     | -              |
| June                               | 1,084,970                     | 31.9                  | 1,431,102      | (0.5)                 | 1,423,312      | 30.3                  | 1,855,252                     | 2.6                   | 1,903,318      | 117.5                 | 4,140,354                     | 1.0                   | 4,181,181      | -                     | -              |
| Total                              | \$ 13,480,098                 | 10.9                  | \$ 14,951,513  | 16.1                  | \$ 17,359,208  | 27.0                  | \$ 22,042,250                 | 6.3                   | \$ 23,440,969  | 123.5                 | \$ 52,379,768                 | (3.1)                 | \$ 50,754,175  | 1.4 <sup>(5)</sup>    | \$ 42,850,356  |

<sup>(1)</sup> Fiscal year is 12 months ending June 30.

<sup>(2)</sup> Cash tolls increased by \$0.25 systemwide; SunPass nominal rates unchanged.

<sup>(3)</sup> Tolls increased to \$1.25 (cash) and \$1.00 (SunPass) at all plazas in July 2005.

<sup>(4)</sup> Tolling on new mainline toll plaza on SR 836 west of NW 97th Avenue and Extension to NW 137th Avenue begins July 1, 2007.

<sup>(5)</sup> Represents the percent change in fiscal year 2010 year-to-date versus same period in prior fiscal year.

<sup>(6)</sup> Annual revenue excludes revenue recovered through violation enforcement.

Source: Miami-Dade Expressway Authority

Transactions increased from 21.9 million in FY 2007 to 65.9 million in FY 2008, or just over 200 percent, due almost exclusively to the additional transactions from the new 97<sup>th</sup> Avenue mainline plaza and the ETC gantry on the SR 836 Extension. These two new facilities accounted for 37.6 million and 6.2 million transactions, respectively.

Excluding transactions from the new 97<sup>th</sup> Avenue mainline plaza and the ETC gantry on the SR 836 Extension from the SR 836 totals, it is estimated that transactions during FY 2008 would have risen by a modest 1 percent. This estimated growth reflects the national economic trends and economic conditions specific to South Florida. These trends include the increase of gasoline prices to \$4.00 a gallon and the national rise in unemployment. South Florida has also faced the challenges of net negative changes in the populations of Miami-Dade and Broward Counties. While the decreases are modest, they stand in sharp contrast with earlier periods of robust growth and are reflected in traffic experienced on transportation facilities such as MDX.

During FY 2009 the national and regional conditions described above contributed to the 2.2 percent decline in transactions. In addition to the negative impacts associated with the economic recession, completion of roadway widening on the Palmetto Expressway south of SR 836 may have shifted some previously-diverted traffic back to the Palmetto Expressway. FY 2010 year-to-date transactions have increased over the same period during FY 2009 by 2.7 percent.

As shown in Table 2-4, toll revenue generated on SR 836 increased in all fiscal years except FY 2009. This was due to the impacts of the economic recession. Revenue has increased from just under \$13.5 million in FY 2003 to \$52.4 million in FY 2008. Revenue through April of the current fiscal year is 1.4 percent greater than the same period in FY 2009.

#### **SR 874 – DON SHULA EXPRESSWAY**

Table 2-5 provides monthly transactions and toll revenue for SR 874, the Don Shula Expressway. Transactions on the South Dade Expressway increased each year from FY 2003 to FY 2008, including slight increases in FY 2003 and FY 2006. The small increase in FY 2003 was a result of construction activity at the SR 874 mainline toll plaza. Despite the toll increase in FY 2006, a 0.1 percent increase in transactions was realized. Traffic in the second half of FY 2006 increased largely due to diversions of traffic from the western end of SR 836, which was under construction. Traffic continued to grow in both FY 2007 and FY 2008 by 7.2 percent and 3.8 percent, respectively. Traffic decreased in 2009 by 1.1 percent, primarily due to economic conditions.

**Table 2-5**  
**Monthly Transactions and Toll Revenue Trends**  
**SR 874 - Don Shula Expressway**  
**FY 2003 Through FY 2010 <sup>(1)</sup>**

| <b>Transactions</b> |                               |                       |                   |                       |                   |                       |                               |                       |                   |                       |                   |                       |                   |                             |                   |
|---------------------|-------------------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------------|-------------------|
| <b>Month</b>        | <b>FY 2003 <sup>(2)</sup></b> | <b>Percent Change</b> | <b>FY 2004</b>    | <b>Percent Change</b> | <b>FY 2005</b>    | <b>Percent Change</b> | <b>FY 2006 <sup>(3)</sup></b> | <b>Percent Change</b> | <b>FY 2007</b>    | <b>Percent Change</b> | <b>FY 2008</b>    | <b>Percent Change</b> | <b>FY 2009</b>    | <b>Percent Change</b>       | <b>FY 2010</b>    |
| July                | 2,093,975                     | 1.0                   | 2,114,435         | 1.1                   | 2,138,357         | 1.2                   | 2,164,158                     | 2.5                   | 2,218,803         | 6.1                   | 2,353,817         | (0.3)                 | 2,346,183         | 1.6                         | 2,384,706         |
| August              | 2,198,414                     | (6.1)                 | 2,064,419         | 1.0                   | 2,085,596         | 1.5                   | 2,116,313                     | 3.8                   | 2,197,519         | 10.8                  | 2,435,749         | (8.3)                 | 2,234,577         | 6.0                         | 2,368,487         |
| September           | 2,076,685                     | (3.7)                 | 1,999,636         | (18.1)                | 1,638,215         | 24.8                  | 2,044,015                     | 8.3                   | 2,213,230         | 3.0                   | 2,278,541         | (0.6)                 | 2,263,969         | (0.1)                       | 2,262,492         |
| October             | 2,206,185                     | (2.8)                 | 2,143,957         | 2.8                   | 2,203,839         | (29.3)                | 1,558,988                     | 49.8                  | 2,335,291         | 2.0                   | 2,382,164         | (0.5)                 | 2,370,800         | (4.3)                       | 2,269,381         |
| November            | 2,150,291                     | (5.5)                 | 2,032,314         | 5.7                   | 2,148,609         | (1.5)                 | 2,115,745                     | 6.9                   | 2,261,211         | 3.2                   | 2,332,459         | (1.6)                 | 2,295,517         | (7.3)                       | 2,128,120         |
| December            | 2,191,178                     | (0.4)                 | 2,182,606         | 1.7                   | 2,218,971         | 1.0                   | 2,240,207                     | 3.2                   | 2,312,910         | 3.9                   | 2,403,571         | 0.4                   | 2,413,939         | (6.5)                       | 2,257,452         |
| January             | 2,087,946                     | 4.5                   | 2,181,127         | 1.5                   | 2,213,312         | 0.2                   | 2,218,843                     | 6.9                   | 2,371,883         | 1.1                   | 2,397,559         | (0.1)                 | 2,394,563         | (10.0)                      | 2,155,007         |
| February            | 1,934,820                     | 8.9                   | 2,106,304         | (0.9)                 | 2,086,737         | (0.1)                 | 2,084,259                     | 5.9                   | 2,206,896         | 6.2                   | 2,344,477         | (3.8)                 | 2,256,254         | (7.0)                       | 2,099,068         |
| March               | 2,105,672                     | 5.1                   | 2,213,587         | 4.5                   | 2,314,145         | 3.3                   | 2,390,502                     | 3.5                   | 2,472,985         | 1.1                   | 2,500,869         | 0.6                   | 2,516,364         | (7.6)                       | 2,325,835         |
| April               | 2,119,145                     | 0.5                   | 2,128,707         | 4.1                   | 2,214,953         | 1.4                   | 2,246,834                     | 3.1                   | 2,317,050         | 4.7                   | 2,426,842         | 0.4                   | 2,436,059         | (15.1)                      | 2,067,467         |
| May                 | 2,157,410                     | (0.2)                 | 2,152,386         | 3.7                   | 2,232,615         | 3.4                   | 2,309,382                     | 4.4                   | 2,410,791         | 2.0                   | 2,458,755         | (0.9)                 | 2,437,039         | -                           | -                 |
| June                | 2,028,638                     | 3.7                   | 2,103,854         | 4.8                   | 2,203,869         | 1.1                   | 2,228,418                     | 1.2                   | 2,254,732         | 1.7                   | 2,292,597         | 1.2                   | 2,319,009         | -                           | -                 |
| <b>Total</b>        | <b>25,350,358</b>             | <b>0.3</b>            | <b>25,423,332</b> | <b>1.1</b>            | <b>25,699,218</b> | <b>0.1</b>            | <b>25,717,664</b>             | <b>7.2</b>            | <b>27,573,301</b> | <b>3.8</b>            | <b>28,607,400</b> | <b>(1.1)</b>          | <b>28,284,273</b> | <b>(5.1) <sup>(4)</sup></b> | <b>22,318,015</b> |

| <b>Toll Revenue <sup>(5)</sup></b> |                               |                       |                      |                       |                      |                       |                               |                       |                      |                       |                      |                       |                      |                             |                      |
|------------------------------------|-------------------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|-------------------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------------|----------------------|
| <b>Month</b>                       | <b>FY 2003 <sup>(2)</sup></b> | <b>Percent Change</b> | <b>FY 2004</b>       | <b>Percent Change</b> | <b>FY 2005</b>       | <b>Percent Change</b> | <b>FY 2006 <sup>(3)</sup></b> | <b>Percent Change</b> | <b>FY 2007</b>       | <b>Percent Change</b> | <b>FY 2008</b>       | <b>Percent Change</b> | <b>FY 2009</b>       | <b>Percent Change</b>       | <b>FY 2010</b>       |
| July                               | \$ 1,381,583                  | 4.4                   | \$ 1,441,820         | 21.9                  | \$ 1,757,505         | 26.5                  | \$ 2,222,974                  | 6.2                   | \$ 2,361,902         | 5.7                   | \$ 2,495,505         | (3.0)                 | \$ 2,420,795         | 0.4                         | \$ 2,429,736         |
| August                             | 1,450,492                     | (2.6)                 | 1,412,953            | 20.1                  | 1,696,999            | 31.1                  | 2,224,710                     | 4.5                   | 2,325,046            | 10.6                  | 2,571,957            | (10.7)                | 2,297,974            | 5.0                         | 2,413,278            |
| September                          | 1,370,176                     | 0.2                   | 1,372,951            | (5.8)                 | 1,293,134            | 63.6                  | 2,115,724                     | 10.7                  | 2,341,292            | 2.3                   | 2,394,502            | (3.6)                 | 2,308,268            | (0.4)                       | 2,298,379            |
| October                            | 1,455,618                     | 0.8                   | 1,466,674            | 20.6                  | 1,768,265            | (8.4)                 | 1,619,986                     | 51.4                  | 2,453,075            | 2.0                   | 2,503,065            | (3.2)                 | 2,422,916            | (4.8)                       | 2,306,816            |
| November                           | 1,418,740                     | (3.8)                 | 1,364,967            | 27.7                  | 1,742,404            | 14.9                  | 2,001,894                     | 19.1                  | 2,384,081            | 2.8                   | 2,450,135            | (3.8)                 | 2,357,076            | (8.3)                       | 2,160,648            |
| December                           | 1,445,717                     | 2.0                   | 1,474,436            | 24.1                  | 1,829,216            | 29.7                  | 2,372,595                     | 3.5                   | 2,455,208            | 2.5                   | 2,517,067            | (1.6)                 | 2,476,699            | (7.7)                       | 2,285,464            |
| January                            | 1,377,605                     | 5.5                   | 1,453,878            | 25.2                  | 1,819,552            | 28.9                  | 2,345,433                     | 7.3                   | 2,515,794            | (0.5)                 | 2,503,587            | (2.0)                 | 2,452,332            | (11.7)                      | 2,166,364            |
| February                           | 1,276,574                     | 11.0                  | 1,417,617            | 20.4                  | 1,707,390            | 30.6                  | 2,229,022                     | 4.9                   | 2,339,092            | 4.9                   | 2,453,574            | (5.5)                 | 2,318,918            | (8.6)                       | 2,120,102            |
| March                              | 1,389,301                     | 27.2                  | 1,767,048            | 7.3                   | 1,895,167            | 34.6                  | 2,551,361                     | 3.1                   | 2,631,382            | (0.4)                 | 2,619,805            | (1.3)                 | 2,585,412            | (8.8)                       | 2,358,172            |
| April                              | 1,314,595                     | 33.7                  | 1,757,473            | (0.0)                 | 1,757,348            | 35.9                  | 2,387,789                     | 3.0                   | 2,458,270            | 3.0                   | 2,532,547            | (1.3)                 | 2,498,540            | (16.0)                      | 2,099,650            |
| May                                | 1,455,128                     | 22.8                  | 1,786,398            | 3.6                   | 1,851,247            | 32.7                  | 2,457,088                     | 4.1                   | 2,558,503            | 0.1                   | 2,560,398            | (3.1)                 | 2,480,329            | -                           | -                    |
| June                               | 1,390,380                     | 24.3                  | 1,728,369            | 0.6                   | 1,739,028            | 36.3                  | 2,369,637                     | 0.5                   | 2,382,517            | 0.2                   | 2,388,290            | (1.1)                 | 2,361,231            | -                           | -                    |
| <b>Total</b>                       | <b>\$ 16,725,910</b>          | <b>10.3</b>           | <b>\$ 18,444,583</b> | <b>13.1</b>           | <b>\$ 20,857,255</b> | <b>29.0</b>           | <b>\$ 26,898,213</b>          | <b>8.6</b>            | <b>\$ 29,206,162</b> | <b>2.7</b>            | <b>\$ 29,990,432</b> | <b>(3.4)</b>          | <b>\$ 28,980,490</b> | <b>(6.2) <sup>(4)</sup></b> | <b>\$ 22,638,609</b> |

<sup>(1)</sup> Fiscal year is 12 months ending June 30.

<sup>(2)</sup> Cash tolls increased by \$0.25 systemwide; SunPass nominal rates unchanged.

<sup>(3)</sup> Tolls increased to \$1.25 (cash) and \$1.00 (SunPass) at all plazas in July 2005.

<sup>(4)</sup> Represents the percent change in fiscal year 2010 year-to-date versus same period in prior fiscal year.

<sup>(5)</sup> Annual revenue excludes revenue recovered through violation enforcement.

Source: Miami-Dade Expressway Authority



Construction-related impacts associated with the SR 874 and Killian Parkway project, which began in October 2009, continued through FY 2010 and reduced year-to-date transactions by 5.2 percent, compared to the same period during FY 2009.

While not shown in Table 2-5, it should be noted that there was a slight decline in toll revenue between FY 2003 and FY 2002 due to construction activity at the SR 874 toll plaza. Several toll lanes were taken out of service while they were converted to dedicated SunPass<sup>®</sup> operation over a period of months. This resulted in significant delays during peak periods and slightly reduced revenue. Revenue made a strong recovery in FY 2004, increasing 10.3 percent, with particularly high increases in the last four months due to the March 2004 toll increase. Revenue increased by 29.0 percent, reaching \$26.9 million in FY 2006, which was the highest revenue on any of the four MDX expressways at the time. Revenue continued to increase through FY 2008, reaching almost \$30.0 million, but dropped in FY 2009 by 3.4 percent due to the recession. Year-to-date revenue in FY 2010 is down 6.2 percent, partly as a result of the negative impacts associated with the SR 874 and Killian Parkway construction project.

#### **TOTAL MDX SYSTEM**

Table 2-6 provides monthly transactions and toll revenue for the MDX System, with all toll plazas combined. The entire system enjoyed positive growth in transactions for each fiscal year shown in the table, with the exception of FY 2006 when tolls were increased, and in FY 2009 when the impacts of the economic recession severely impacted trip making. FY 2010 year-to-date transactions have increased by 0.3 percent.

Systemwide revenue increased in all but one (FY 2009) of the eight years shown in Table 2-6. From FY 2003 to FY 2007, revenue increased by almost \$34.0 million while transactions remained relatively the same, increasing by a modest 3.9 million. The opening of the NW 97<sup>th</sup> Avenue mainline plaza on SR 836 and the SR 836 Extension in FY 2008 produced an increase in transactions systemwide. Transactions rose by almost 45.6 million and revenue increased by over \$30.0 million. Systemwide transactions through April 2010 increased by 0.3 percent while revenue decreased by 1.4 percent, when compared with the same period in FY 2009.

**Table 2-6**  
**Monthly Transactions and Toll Revenue Trends**  
**Total MDX System**  
**FY 2003 Through FY 2010 <sup>(1)</sup>**

| Transactions |                        |                |            |                |            |                |                        |                |            |                |             |                |             |                    |            |
|--------------|------------------------|----------------|------------|----------------|------------|----------------|------------------------|----------------|------------|----------------|-------------|----------------|-------------|--------------------|------------|
| Month        | FY 2003 <sup>(2)</sup> | Percent Change | FY 2004    | Percent Change | FY 2005    | Percent Change | FY 2006 <sup>(3)</sup> | Percent Change | FY 2007    | Percent Change | FY 2008     | Percent Change | FY 2009     | Percent Change     | FY 2010    |
| July         | 5,838,864              | (0.0)          | 5,837,957  | 0.9            | 5,887,829  | (1.9)          | 5,778,265              | (1.5)          | 5,692,724  | 75.1           | 9,966,371   | (3.7)          | 9,592,776   | 2.9                | 9,866,586  |
| August       | 5,948,996              | (4.4)          | 5,689,305  | 1.5            | 5,776,185  | (1.4)          | 5,696,660              | (0.6)          | 5,662,322  | 78.9           | 10,128,202  | (9.5)          | 9,167,824   | 5.6                | 9,683,222  |
| September    | 5,597,705              | (1.1)          | 5,535,709  | (17.1)         | 4,587,553  | 18.7           | 5,443,448              | 6.2            | 5,780,902  | 58.6           | 9,169,821   | 2.2            | 9,367,053   | 0.6                | 9,427,716  |
| October      | 6,043,628              | (1.5)          | 5,950,747  | 1.7            | 6,049,819  | (31.1)         | 4,170,843              | 49.0           | 6,212,611  | 60.1           | 9,946,199   | (0.8)          | 9,871,390   | 1.1                | 9,979,658  |
| November     | 5,729,801              | (2.7)          | 5,572,459  | 5.6            | 5,885,113  | (3.0)          | 5,707,908              | 4.6            | 5,967,641  | 62.3           | 9,686,955   | (3.5)          | 9,349,175   | 0.1                | 9,356,646  |
| December     | 5,806,300              | 2.1            | 5,928,446  | 1.6            | 6,026,052  | (1.3)          | 5,947,120              | 1.6            | 6,044,122  | 62.7           | 9,836,714   | 0.4            | 9,875,968   | (1.0)              | 9,780,798  |
| January      | 5,655,092              | 5.7            | 5,974,953  | 1.9            | 6,090,293  | (1.8)          | 5,982,644              | 4.9            | 6,278,319  | 57.9           | 9,911,144   | (1.5)          | 9,766,451   | (2.1)              | 9,560,877  |
| February     | 5,324,135              | 10.0           | 5,858,354  | (1.0)          | 5,801,466  | (2.5)          | 5,654,636              | 4.4            | 5,904,268  | 64.7           | 9,727,256   | (4.8)          | 9,264,049   | (0.7)              | 9,194,670  |
| March        | 5,858,683              | 6.7            | 6,249,268  | 4.0            | 6,501,456  | 0.2            | 6,511,763              | 2.4            | 6,670,277  | 55.1           | 10,343,787  | 0.4            | 10,389,286  | (0.1)              | 10,375,138 |
| April        | 5,716,395              | 3.7            | 5,928,091  | 4.0            | 6,163,826  | (2.9)          | 5,983,683              | 3.3            | 6,182,076  | 63.2           | 10,086,851  | (0.6)          | 10,026,186  | (2.6)              | 9,769,732  |
| May          | 5,805,632              | 2.1            | 5,929,010  | 4.5            | 6,194,941  | (1.1)          | 6,126,397              | 3.9            | 6,365,712  | 58.8           | 10,110,657  | (2.2)          | 9,892,589   | -                  | -          |
| June         | 5,536,876              | 4.7            | 5,797,663  | 2.7            | 5,952,605  | (2.3)          | 5,815,503              | 2.6            | 5,964,563  | 57.2           | 9,376,693   | 1.9            | 9,558,116   | -                  | -          |
| Total        | 68,862,109             | 2.0            | 70,251,962 | 0.9            | 70,917,138 | (3.0)          | 68,818,870             | 5.7            | 72,725,537 | 62.7           | 118,290,650 | (1.8)          | 116,120,863 | 0.3 <sup>(4)</sup> | 96,995,043 |

| Toll Revenue <sup>(5)</sup> |                        |                |               |                |               |                |                        |                |               |                |                |                |                |                      |               |
|-----------------------------|------------------------|----------------|---------------|----------------|---------------|----------------|------------------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------------|---------------|
| Month                       | FY 2003 <sup>(2)</sup> | Percent Change | FY 2004       | Percent Change | FY 2005       | Percent Change | FY 2006 <sup>(3)</sup> | Percent Change | FY 2007       | Percent Change | FY 2008        | Percent Change | FY 2009        | Percent Change       | FY 2010       |
| July                        | \$ 3,750,901           | (0.3)          | \$ 3,740,791  | 25.7           | \$ 4,703,922  | 30.3           | \$ 6,130,475           | 0.5            | \$ 6,158,428  | 45.7           | \$ 8,972,367   | (2.8)          | \$ 8,722,906   | 1.4                  | \$ 8,843,010  |
| August                      | 3,821,651              | (4.0)          | 3,667,111     | 25.0           | 4,582,538     | 33.2           | 6,105,957              | (0.2)          | 6,093,269     | 51.7           | 9,241,192      | (10.2)         | 8,296,817      | 4.7                  | 8,685,550     |
| September                   | 3,595,980              | (0.3)          | 3,586,382     | 0.1            | 3,589,730     | 61.1           | 5,782,579              | 8.0            | 6,246,927     | 36.0           | 8,496,210      | (1.1)          | 8,401,259      | (0.3)                | 8,377,533     |
| October                     | 3,882,443              | (0.9)          | 3,847,855     | 24.6           | 4,793,450     | (7.3)          | 4,444,527              | 48.9           | 6,619,311     | 38.0           | 9,135,451      | (2.8)          | 8,879,425      | (0.3)                | 8,848,648     |
| November                    | 3,680,839              | (2.9)          | 3,575,235     | 30.4           | 4,661,548     | 26.2           | 5,883,181              | 8.8            | 6,400,831     | 38.8           | 8,884,000      | (5.0)          | 8,442,223      | (1.8)                | 8,288,693     |
| December                    | 3,729,982              | 2.8            | 3,834,933     | 26.1           | 4,834,327     | 31.8           | 6,373,870              | 2.5            | 6,533,953     | 37.6           | 8,989,955      | (0.9)          | 8,908,627      | (2.9)                | 8,651,942     |
| January                     | 3,632,846              | 5.4            | 3,828,213     | 27.2           | 4,868,383     | 31.7           | 6,409,810              | 5.2            | 6,742,085     | 34.1           | 9,040,160      | (2.7)          | 8,795,270      | (4.4)                | 8,408,411     |
| February                    | 3,420,238              | 10.1           | 3,764,786     | 22.7           | 4,618,595     | 32.9           | 6,136,614              | 3.2            | 6,334,625     | 40.6           | 8,907,426      | (6.2)          | 8,353,112      | (2.9)                | 8,110,140     |
| March                       | 3,763,633              | 27.5           | 4,798,316     | 7.8            | 5,170,986     | 35.9           | 7,028,240              | 1.7            | 7,149,545     | 32.9           | 9,499,076      | (1.4)          | 9,368,988      | (2.1)                | 9,171,900     |
| April                       | 3,563,696              | 32.2           | 4,709,814     | 3.2            | 4,859,217     | 32.9           | 6,457,092              | 2.9            | 6,646,876     | 38.9           | 9,234,192      | (2.4)          | 9,016,824      | (4.9)                | 8,577,776     |
| May                         | 3,789,266              | 25.3           | 4,747,051     | 4.5            | 4,958,828     | 33.1           | 6,598,150              | 3.7            | 6,842,963     | 34.9           | 9,232,259      | (4.4)          | 8,829,975      | -                    | -             |
| June                        | 3,605,721              | 28.4           | 4,631,413     | 0.7            | 4,664,365     | 34.2           | 6,257,885              | 2.2            | 6,396,383     | 33.7           | 8,553,507      | 0.2            | 8,569,240      | -                    | -             |
| Total                       | \$ 44,237,198          | 10.2           | \$ 48,731,900 | 15.5           | \$ 56,305,889 | 30.7           | \$ 73,608,380          | 6.2            | \$ 78,165,196 | 38.4           | \$ 108,185,795 | (3.3)          | \$ 104,584,666 | (1.4) <sup>(4)</sup> | \$ 85,963,603 |

<sup>(1)</sup> Fiscal year is 12 months ending June 30.

<sup>(2)</sup> Cash tolls increased by \$0.25 systemwide; SunPass nominal rates unchanged.

<sup>(3)</sup> Tolls increased to \$1.25 (cash) and \$1.00 (SunPass) at all plazas in July 2005.

<sup>(4)</sup> Represents the percent change in fiscal year 2010 year-to-date versus same period in prior fiscal year.

<sup>(5)</sup> Annual revenue includes revenue recovered through violation enforcement.

Source: Miami-Dade Expressway Authority

## **SUNPASS® MARKET PENETRATION TRENDS**

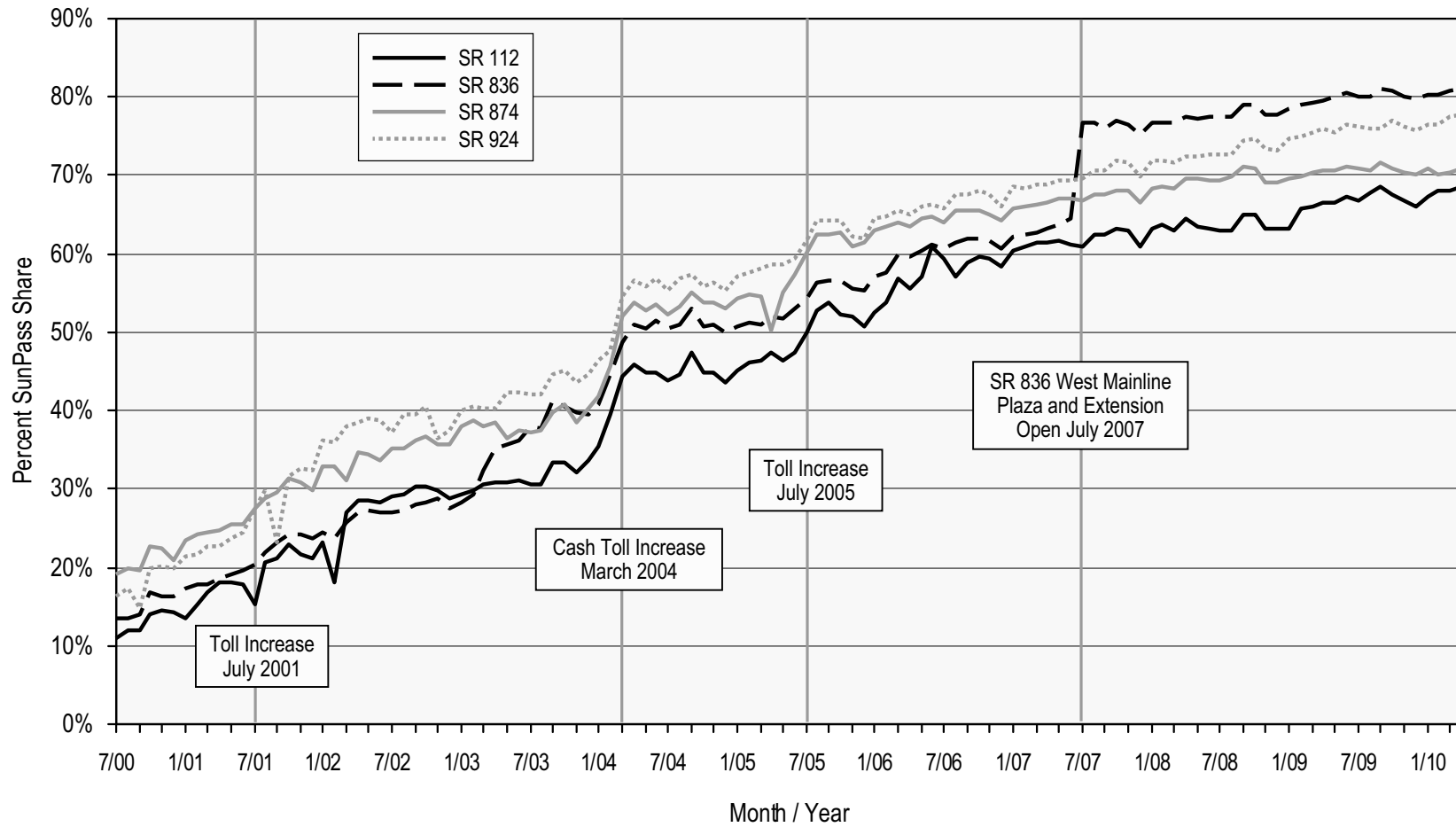
Electronic toll collection was implemented on the MDX System in 1999. Referred to as SunPass®, the electronic toll account management system is operated by Florida Turnpike Enterprise, with revenue transferred to MDX on a daily basis.

As shown in Figure 2-1, SunPass® participation has steadily increased since 2000. The SunPass® market shares are shown for each of the four expressways, on a monthly basis between July 2000 and March 2010, the latest month for which actual data was available. SunPass® use has increased steadily between 2000 and the end of 2003. In July 2000, the SunPass® share ranged from about 12 to 19 percent, depending on toll facility, with the majority of customers still preferring to use cash. By the end of 2003, SunPass® participation rates were generally between 33 and 44 percent. SR 924 generally had the highest participation rates while SR 112 had the lowest.

A significant increase in SunPass® participation occurred during the first quarter of 2004. This was due to an increase in the cash toll, thereby significantly increasing the price differential between cash and SunPass®. The result was an immediate increase in the share of SunPass®, reaching as much as 55 percent of transactions on SR 924. After the cash toll increase, a period of about a year of relatively level SunPass® participation followed. Increases in SunPass® market share resumed in 2005, particularly around the time of the July 2005 toll increase. While both cash and SunPass® rates were increased, many motorists not yet in the SunPass® program were able to avoid the increase altogether by simply shifting from cash to SunPass®.

On a systemwide basis, SunPass® participation continued to gradually increase, reaching almost 66 percent by June 2007. In the same month, SunPass® participation on SR 836 was 64 percent. With the opening of the SunPass®-only SR 836 Extension and the 97<sup>th</sup> Avenue mainline toll plaza on SR 836 in late June 2007, SunPass® participation on SR 836 increased to almost 77 percent. Systemwide participation rose to more than 72 percent.

By April 2010, SunPass® participation systemwide increased to 77 percent. The highest SunPass® participation continues to be on SR 836, while the lowest continues to be on SR 112. This is due to the presence of a significant number of less frequent users, generally associated with travel to and from MIA.



Source: Miami-Dade Expressway Authority.

## MDX TRAFFIC DISTRIBUTION

Table 2-7 presents a summary of the distribution of systemwide annual transactions by vehicle class and payment type for FY 2009. As presented, two-axle vehicles, which include passenger cars, vans and SUVs, comprised 98.4 percent of total transactions in. Vehicles with three or more axles, which include trucks, buses and other commercial vehicles, comprised 1.6 percent of total transactions.

On an annual basis, 74.8 percent of all transactions were made using SunPass<sup>®</sup>, and 25.2 percent were made using cash. Looking at SunPass<sup>®</sup> participation rates by vehicle type, it is interesting to note that a higher proportion of commercial vehicles used SunPass<sup>®</sup> in FY 2009. Of the almost 1.9 million three or more axle vehicle transactions, 85.1 percent were SunPass<sup>®</sup> and 14.9 percent cash. About 74.6 percent of transactions by two axles vehicles were SunPass<sup>®</sup> and 25.4 percent cash.

Use of SunPass<sup>®</sup> also varied within the three or more axle vehicle category. SunPass<sup>®</sup> use by five or more axle vehicles, which are generally 18-wheel tractor trailer trucks and other heavy commercial vehicles, was 77.9 percent for the fiscal year. This was almost comparable to SunPass<sup>®</sup> participation among two-axle vehicles. By contrast, SunPass<sup>®</sup> participation among three-axle vehicles, which includes delivery trucks, motor homes and other light commercial vehicles, was 89.3 percent.

**Table 2-7**  
**Traffic Distribution by Class and Payment Type**  
**FY 2009 Annual Totals**

| Vehicle Class |            | Transactions |            |             | Percent of Total |
|---------------|------------|--------------|------------|-------------|------------------|
|               |            | SunPass      | Cash       | Total       |                  |
| 2 Axles       | Number     | 85,273,304   | 28,971,473 | 114,244,777 | 98.4%            |
|               | % of Class | 74.6%        | 25.4%      |             |                  |
| 3 Axles       | Number     | 834,638      | 100,331    | 934,969     | 0.8%             |
|               | % of Class | 89.3%        | 10.7%      |             |                  |
| 4 Axles       | Number     | 287,252      | 44,022     | 331,273     | 0.3%             |
|               | % of Class | 86.7%        | 13.3%      |             |                  |
| 5+ Axles      | Number     | 475,298      | 134,546    | 609,844     | 0.5%             |
|               | % of Class | 77.9%        | 22.1%      |             |                  |
| Total         | Number     | 86,870,492   | 29,250,371 | 116,120,863 | 100.0%           |
|               | % of Class | 74.8%        | 25.2%      |             |                  |

Note: Excludes Violations and Non-Revenue Vehicles  
Source: Miami-Dade Expressway Authority

## CHAPTER 3

# REGIONAL GROWTH TRENDS AND PROJECTIONS

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Socioeconomic growth is a major factor in determining future utilization of any toll facility. In the case of the MDX System, each of the four tolled expressways has been in operation for many years. These are mature facilities that tend to experience moderate levels of annual traffic growth. Trends in recent years have been affected by toll increases, fluctuations in the price of motor fuels, as well as the recent economic recession.

At the outset of the study, WSA obtained the latest socioeconomic forecasts from each of the Miami-Dade, Broward and Palm Beach County Metropolitan Planning Organizations (MPOs). These forecasts of households, population, employment, vehicles, and other variables are inputs in the Southeast Regional Planning Model (SERPM) travel demand modeling process, which is described in greater detail in Chapter 4. However, the socioeconomic/demographic forecasts developed by the MPOs were prepared prior to the current economic “downturn” that has now been designated a recession. While it may be impossible to predict the actual depth or length of the recession in the study area, it is important that an independent review of the current MPO forecasts be conducted to consider the following in preparing updated estimates, if necessary:

- Are the future year 2035 socioeconomic/demographic forecasts prepared by the MPOs prior to the recession still considered reasonable;
- What will be the annual rate or pace of growth in the socioeconomic/demographic variables from current year levels, given the near-term slowdown in population growth in Florida and Miami-Dade County, and expected declines in Broward County; high home foreclosure rates throughout the region; and, Miami-area unemployment rates which while close to the current national average, are double those experienced in 2005 through 2007; and

- Based on the current recession, will there be structural changes in the regional economy that would warrant broader changes to the forecasts?

To address these and other issues for this study, WSA recruited the input of an independent local economic consulting firm, the WEG. WEG completed a review of the 2035 socioeconomic/demographics forecast provided by the MPO.

Full detail of the work performed by WEG is documented in the independent economic consultant report, included as Appendix A to this report. WEG reviewed the 2005 Base socioeconomic conditions and the 2035 forecast at a regional level of detail throughout Miami-Dade County. From their analysis and in consideration of the current economic conditions, WEG proposed alternative interim year demographic growth forecasts, while concluding that the latest 2035 demographic forecasts prepared by the three MPOs were reasonable and properly reflect the current and estimated projections of economic and social activity in the tri-county region.

## **BACKGROUND**

In the Fall of 2008, The Washington Economics Group (WEG) performed a review of the population and socio-economic data sets each prepared by the Metropolitan Planning Organizations (MPO) of Miami-Dade, Broward and Palm Beach Counties. WEG focused on data sets for 2005 and 2035. These data sets contain a range of population and socio-economic data for each county, and each data set carries a full set of population and socio-economic estimates at the traffic analysis zone (TAZ) level for the entire region. Each county has been divided into several hundred TAZs, with each containing only a few blocks of residential and/or commercial properties.

WEG prepared annual estimates for each of the population and socio-economic variables in the data set covering the years between 2005 and 2035. These estimates were provided to WSA for use as inputs into the travel demand model. These annual estimates were generated utilizing a modified straight line projection method whereby growth in the early years of the forecast period was constrained to reflect the adverse impacts and uncertainties related to the ongoing economic recession and slower rates of population growth expected for the next few years. Growth shortfalls in the early years of the forecast period were recovered through projected higher growth rates in the years between 2015 and 2035.

## **CONSISTENCY WITH CURRENT STATE PROJECTIONS**

For the current review, initiated in the fall of 2009, WEG obtained current data sets from the Miami-Dade, Broward and Palm Beach County MPOs for the years 2005 and 2035. These data sets were compared to the data sets obtained in late 2008. There has been no change in the data sets since the last WEG analysis. Additionally, the latest long-range population projections for each county and the State of Florida were obtained from the Florida Legislature's Office of Economic and Demographic Research (EDR).

The EDR is responsible for the preparation of the state's official projections of population and a wide range of economic variables. The EDR draws on a wide range of government and academic resources in the preparation of these estimates, and as a result, they reflect the best and latest thinking about the economic and social trends that are likely to shape Florida in the years ahead. The EDR is currently projecting that between 2008 and 2030, Florida's population will increase by 6.4 million, or 33.9 percent, from 18.9 million to 25.3 million residents. EDR projects that Miami-Dade County's population will increase by 0.5 million people, from 2.5 million to 3.0 million. Broward County's population is projected to increase by 0.4 million people, from 1.8 million to 2.2 million, and Palm Beach County's population is projected to increase by 0.4 million people, from 1.3 million to 1.7 million. These projections reflect the EDR's expectation that the focus of population growth will shift away from Southeast Florida to other areas of the state in the future. While Florida's overall population is expected to grow by almost 34 percent between 2008 and 2030, Miami-Dade County is expected to grow by 20.0 percent, Broward by 22.2 percent, and Palm Beach by 30.8 percent over the same time period. These trends are shown graphically in Figure 3-1.

The EDR's long-range population projections for Miami-Dade, Broward and Palm Beach Counties were compared to the population projections contained in the MPO data sets to test the reasonableness of the MPO projections. Table 3-1 summarizes the differences in the 2035 terminal-year forecasts for each county. As shown in the table, differences in population projections are relatively minor, well within an acceptable range of error for this type of long-range forecast and can easily be attributed to minor differences in assumptions or methodology. This methodology is discussed in additional detail in the section entitled, Interim Year Forecasts, later in this chapter.



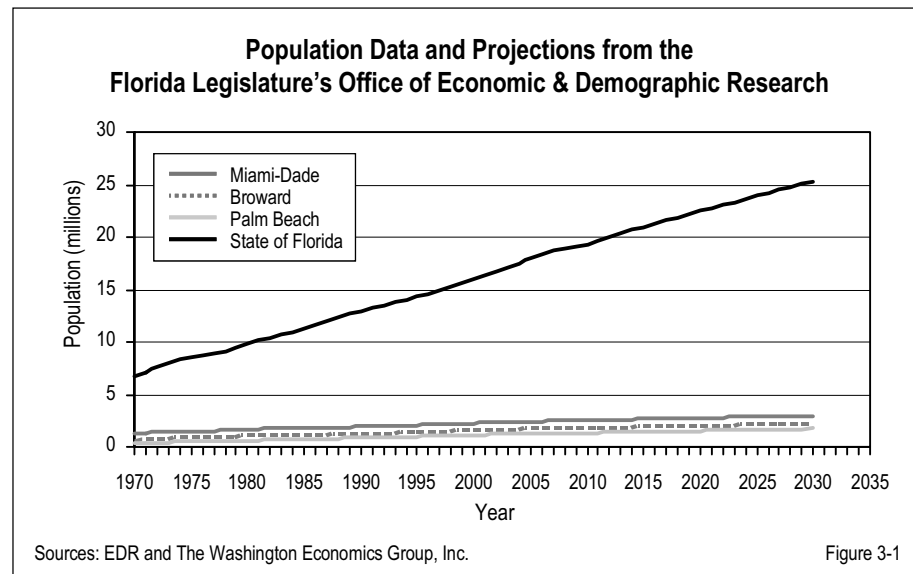


**Table 3-1  
Comparison of 2035 Population Projections**

| County     | Population Projection |           | Difference | Percent Difference |
|------------|-----------------------|-----------|------------|--------------------|
|            | MPO                   | WEG       |            |                    |
| Miami-Dade | 3,281,989             | 3,278,155 | 3,834      | 0.12               |
| Broward    | 2,250,830             | 2,298,447 | -47,617    | (2.07)             |
| Palm Beach | 1,782,542             | 1,682,599 | 99,943     | 5.94               |

Sources: Miami-Dade, Broward, and Palm Beach Counties MPO and  
The Washington Economics Group, Inc.

Figure 3-2 presents the EDR's annual population projections for Miami-Dade County (light gray line), a straight-line projection based on the MPO's data sets (black line), and the WEG projections (dark gray line). Figure 3-2 shows that over the near and medium term, all three projections track closely. It is only in the distant future that there is a significant divergence between the MPO projections and the latest projections from the EDR. In 2030, there is a difference of approximately 200,000 persons between the MPO and EDR population projections. Given that this is 21 years into the future, the differences are not unexpected. Minor changes in assumptions such as net in-migration from outside of the area, changes in birth and death rates, and geopolitical issues in the intervening period could easily account for this difference. In order to examine these issues,

WEG studied historical rates of in-migration as well as variance in long-term fertility trends and life expectancy.

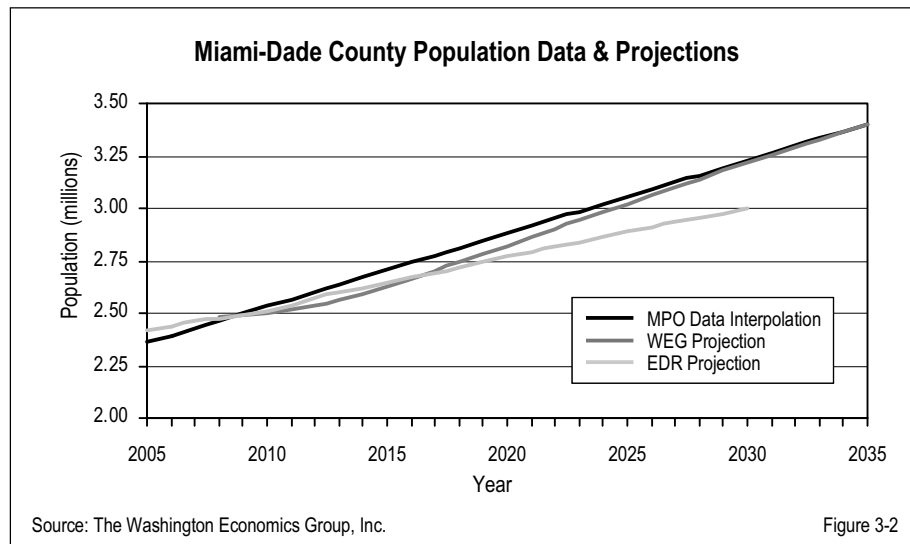
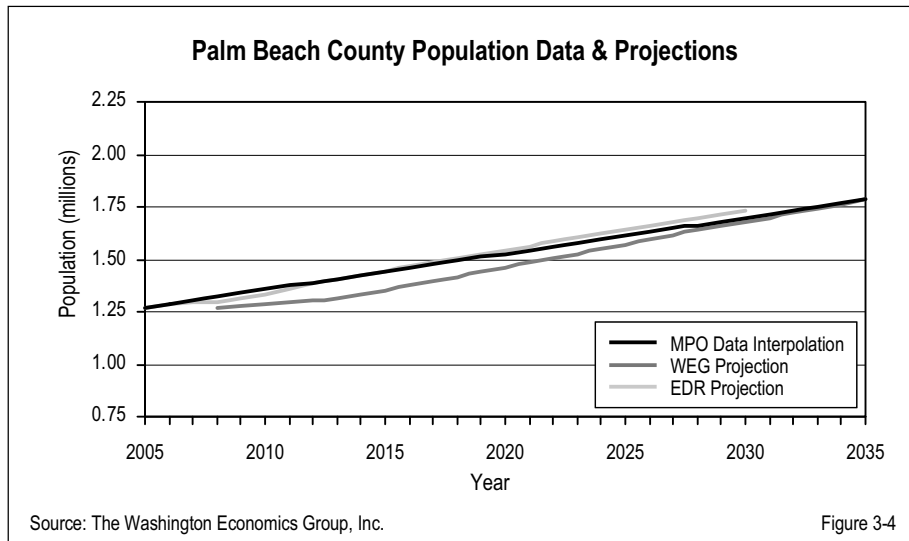
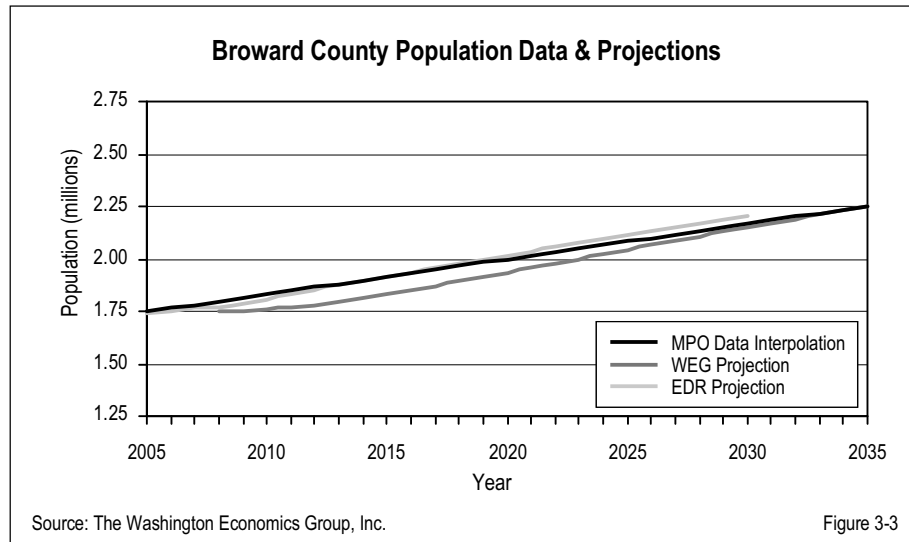


Figure 3-3 presents the EDR's annual population projections for Broward County (light gray line), a straight-line projection based on the MPO's data sets (black line), and the projections from WEG (dark gray line). Figure 3-3 shows that over the near term all three projections track closely. The EDR and MPO forecasts remain consistent in the medium term, while the WEG forecast is somewhat lower. In the distant future there is a significant divergence between the MPO projections and the latest projections from the EDR. In 2030 there is a difference of less than 100,000 between the MPO and EDR population projections. Given that this is 21 years in the future, the differences are not unexpected. Minor changes in assumptions or expected events in the intervening period could easily account for this difference.

Figure 3-4 presents the EDR's annual population projections for Palm Beach County (light gray line), a straight-line projection based on the MPO's data sets (black line), and the WEG projections (dark gray line). The figure shows that over the near term all three projections track closely, though the WEG forecast diverges from the other two in the medium term. In the distant future there is a moderate divergence between the MPO projections and the latest projections from the EDR. In 2030, there is a difference of less than 50,000 between the MPO and EDR population projections.



## CONSISTENCY WITH COUNTY LONG-RANGE PLAN

The Miami-Dade County Comprehensive Development Master Plan (CDMP) sets forth the county's overall objectives for long-range development and economic growth. This document was reviewed as part of the forecast validation process. The current (2006, amended to 2008) CDMP sets forth the community's goals and objectives for growth with measurement points in the years 2015 and 2025. The CDMP is a "living document" in the sense that the document has continued to be updated

periodically since it was first approved in 1975. The goals and objectives establish a growth policy that calls for the intensification of physical development and expansion of the urban area to be managed so that it occurs (1) at a rate commensurate with projected population and economic growth; (2) in a contiguous pattern centered around a network of high-intensity urban centers well connected by multimodal transportation facilities; and (3) in locations which optimize efficiency in public service delivery and conservation of natural resources.<sup>(1)</sup>

One of the key goals established in the land-use element of the CDMP is for the community to encourage “urban infill” development strategies. Most of the remaining open land in the county is not available for future development as it is environmentally sensitive, or has already been allocated to other uses, such as the provision of drinking water.

Future land-use maps call for more intensive uses of lands that have already been developed, leading to increased population density in these areas. Land-use maps that are a part of the CDMP show that most of the currently developed areas of the county (both incorporated and unincorporated areas) will likely have their allowable population density increased once between 2006 and 2025.

The CDMP land-use map for Miami-Dade County also shows the current and projected Urban Development Boundary (UDB). The County’s UDB is an effective barrier to intensive development of land located outside the urban area. Outside the UDB, property owners are allowed to have one residence per five acres, commercial uses are generally restricted to agricultural pursuits, and county services provided to property owners are very limited.

As currently envisioned in the CDMP, there will only be a few relatively minor adjustments to the UDB in the southern portions of the county.

WEG has reviewed the population growth in the other socio-economic variables contained within the MPO data sets and found it to be consistent with the goals and objectives that are a part of the County’s CDMP. Growth is expected to occur in areas that have already been developed, with the focus on more intensive, as opposed to extensive use of available land resources.

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<sup>(1)</sup> Miami-Dade County Comprehensive Development Master Plan (CDMP), “The Land Use Element” page I-1.

## **LONG-TERM CHANGES IN ECONOMIC BEHAVIOR**

WEG's review of the MPO data sets in the fall of 2008 identified a heightened level of economic uncertainty associated with financial market turmoil and impending changes in national political leadership as factors that made it challenging to accurately predict long-term patterns of economic and social behavior. Although we now have new political leadership at the national level, the economic and fiscal uncertainty discussed at that time is still present. Some problems that were apparent at that time have been resolved, only to be replaced by new issues. As discussed further in the following section, this uncertainty is seen as a primary driver of below-trend growth for the next few years. Economic activity continues to be weak, with the future course unclear. At this point, it is still impossible to determine if the events of the last few years will result in long-term changes in economic and social activity, or whether old activity patterns will re-emerge once the economy stabilizes.

WEG's interim forecasts are predicated on the concept of mean reversion, meaning that once financial and economic markets stabilize, old patterns of activity and behavior will be re-established. As a consequence, after a two to three year period of below-trend activity and growth, WEG predicts that growth and activity will accelerate and revert to the long-term trends that are embodied in the MPO data sets.

However, medium and long-term population projections, especially for Miami-Dade County but also increasingly for Broward County, have a high degree of uncertainty due to immigration from Cuba, the Caribbean and increasingly from Venezuela. These uncertain factors could significantly alter current population projections.

## **INTERIM YEAR FORECASTS**

The WEG forecasts of population and other socioeconomic variables are based on socioeconomic data sets for the years 2005 and 2035 prepared by the MPOs of Miami-Dade, Broward and Palm Beach Counties. Each MPO has prepared data sets of population and other relevant variables for each TAZ in their respective counties. These data sets incorporate information from each county government's planning processes as well as information from the state and federal governments. Following the preparation of these data sets, each goes through a review and approval process. When the process is completed, each data set represents the official long-range outlook of its respective county government.

In preparing interim year forecasts, WEG utilized the 2005 and 2035 MPO data set values as fixed endpoints for each variable. The 2005 data sets are the starting point of the forecast and were assumed to represent the best data available at the traffic analysis zone level of detail.

The economic recession in South Florida as a region (Miami-Dade, Broward and Palm Beach Counties) started in late 2007 and continued through the end of 2009. The recession reflected national and international factors such as the sharp reduction in financial flows to the construction sector and a decline in GDP growth. At the international level, the recession in South Florida was caused by negative growth in 2008 and in 2009 among key trade partners in Europe and in Latin America.

For the last few decades, South Florida has experienced consistent population growth. Census Bureau data have shown that on average, Miami-Dade's population has increased by approximately 30,000 people each year for most of this decade. In the last few years, this trend has reversed as a result of the financial market disruptions and the resulting economic downturn. As lending for residential and commercial property purchases and construction disappeared, construction and other economic activities ceased. As people lost jobs, and frequently their homes as well, they have relocated from South Florida to other areas of the country potentially offering more opportunities. In Miami-Dade County this process started in early 2007 when subprime lending ceased. By 2008, the population gain between 2005 and 2007 had been erased by out migration. Therefore, WEG's professional opinion is that the 2005 datasets are sufficient to estimate 2008 conditions, socioeconomic levels and are appropriate to use for developing 2008 trip tables and other analysis.

For the interim year forecasts, growth rates for all socioeconomic variables were calculated based on the projected population growth. Population growth was chosen as the underlying determinant of growth in each of the socioeconomic variables based on economic concepts supported by analytical studies that have covered many different regions and different time periods. Economic analyses of the determinants of growth have concluded that the major forces that drive the overall expansion of an economy are population increases and technological advancements.

Most forecasts of population growth assume that population will grow steadily over time with little change in the rate of growth over the time period, i.e., population growth will approximate a straight line between the two endpoints. However, a wide range of factors, particularly in-migration, make population growth rates for South Florida highly variable. Furthermore, WEG chose to alter the growth path slightly in order to take

into account the prolonged impacts of the current economic downturn. WEG's forecast assumes that several years will be needed for the financial markets to reach a "new normal" and economic growth to re-establish itself. Thus, it will take some time to recover the relatively high record levels of population expansion experienced over the past few decades. Due to South Florida's heavy reliance on economic sectors that have been heavily impacted by these events, WEG is projecting that population growth will be slower than the long-run trend until 2015, and then increase slightly above the long-run trend between 2015 and 2035, as shown in Figures 3-5 and 3-6.

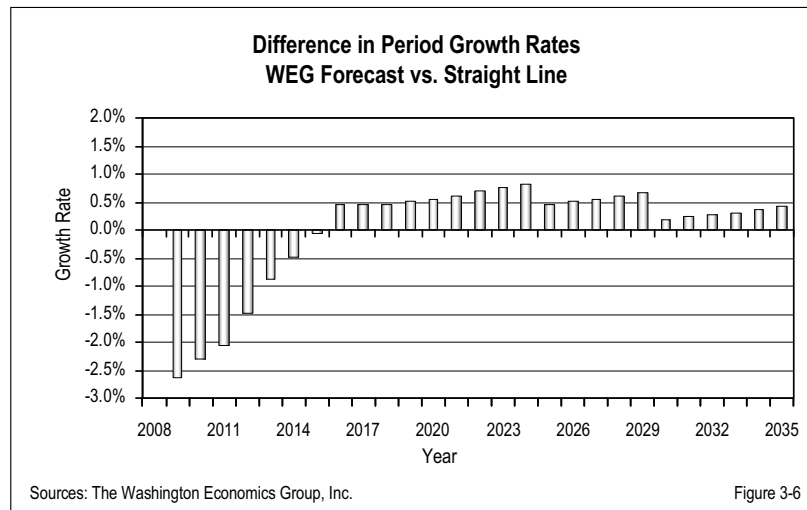
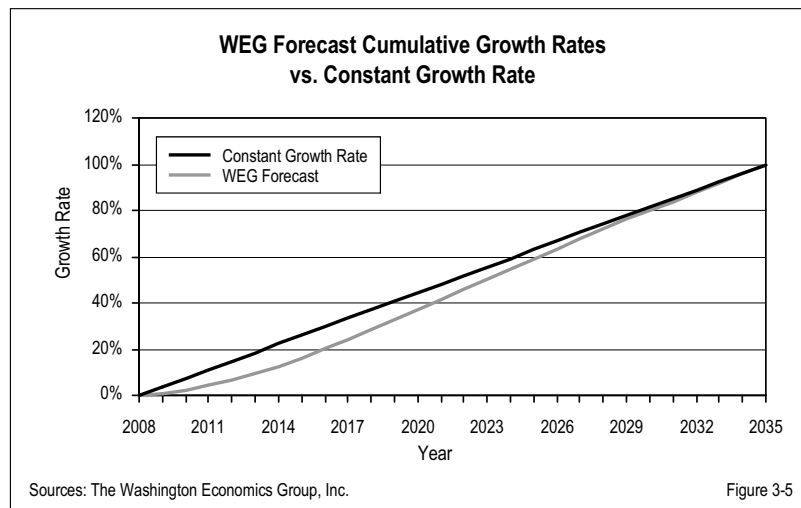


Table 3-2 illustrates the annual growth rates that WEG utilized to prepare their long run population forecast, and illustrates the annual and cumulative differences between their forecasted population growth rates and the population growth rates that arise from a naive straight line projection between 2008 and 2035. The two columns to the right of the column entitled, Year, list the annual and cumulative population growth rates developed by WEG, upon which their forecasts of other socio-economic variables are based. The next two columns list the annual and cumulative population growth rates for a naive straight line population growth projection. The right most column measures the difference in annual growth rates between the WEG forecast and the simple straight line growth projection. For example, while a straight-line approach would apply 25.93 of the difference between 2008 and 2035 in 2015, WEG's forecast would apply 16.02 percent of that difference. These differences between the annual population growth rates are also shown graphically in Figures 3-5 and Figure 3-6.

| <p><b>Table 3-2</b><br/><b>Miami-Dade County Population Growth Profile</b><br/><b>2008 - 2035</b></p> |                         |            |                              |            |                                        |
|-------------------------------------------------------------------------------------------------------|-------------------------|------------|------------------------------|------------|----------------------------------------|
| Year                                                                                                  | Forecast Percent Change |            | Straight-Line Percent Change |            | Difference In<br>Period<br>Growth Rate |
|                                                                                                       | Period                  | Cumulative | Period                       | Cumulative |                                        |
| 2008                                                                                                  | -                       | -          | -                            | -          | -                                      |
| 2009                                                                                                  | 1.06                    | 1.06       | 3.70                         | 3.70       | (2.64)                                 |
| 2010                                                                                                  | 1.39                    | 2.46       | 3.70                         | 7.41       | (2.31)                                 |
| 2011                                                                                                  | 1.65                    | 4.11       | 3.70                         | 11.11      | (2.05)                                 |
| 2012                                                                                                  | 2.24                    | 6.35       | 3.70                         | 14.81      | (1.47)                                 |
| 2013                                                                                                  | 2.82                    | 9.17       | 3.70                         | 18.52      | (0.89)                                 |
| 2014                                                                                                  | 3.21                    | 12.38      | 3.70                         | 22.22      | (0.49)                                 |
| 2015                                                                                                  | 3.64                    | 16.02      | 3.70                         | 25.93      | (0.06)                                 |
| 2016                                                                                                  | 4.16                    | 20.18      | 3.70                         | 29.63      | 0.46                                   |
| 2017                                                                                                  | 4.17                    | 24.35      | 3.70                         | 33.33      | 0.46                                   |
| 2018                                                                                                  | 4.17                    | 28.52      | 3.70                         | 37.04      | 0.46                                   |
| 2019                                                                                                  | 4.21                    | 32.72      | 3.70                         | 40.74      | 0.50                                   |
| 2020                                                                                                  | 4.27                    | 36.99      | 3.70                         | 44.44      | 0.56                                   |
| 2021                                                                                                  | 4.33                    | 41.32      | 3.70                         | 48.15      | 0.62                                   |
| 2022                                                                                                  | 4.39                    | 45.71      | 3.70                         | 51.85      | 0.69                                   |
| 2023                                                                                                  | 4.45                    | 50.16      | 3.70                         | 55.56      | 0.75                                   |
| 2024                                                                                                  | 4.52                    | 54.68      | 3.70                         | 59.26      | 0.81                                   |
| 2025                                                                                                  | 4.16                    | 58.84      | 3.70                         | 62.96      | 0.46                                   |
| 2026                                                                                                  | 4.21                    | 63.05      | 3.70                         | 66.67      | 0.51                                   |
| 2027                                                                                                  | 4.27                    | 67.32      | 3.70                         | 70.37      | 0.56                                   |
| 2028                                                                                                  | 4.32                    | 71.64      | 3.70                         | 74.07      | 0.62                                   |
| 2029                                                                                                  | 4.38                    | 76.02      | 3.70                         | 77.78      | 0.68                                   |
| 2030                                                                                                  | 3.89                    | 79.91      | 3.70                         | 81.48      | 0.18                                   |
| 2031                                                                                                  | 3.93                    | 83.83      | 3.70                         | 85.19      | 0.23                                   |
| 2032                                                                                                  | 3.97                    | 87.81      | 3.70                         | 88.89      | 0.27                                   |
| 2033                                                                                                  | 4.02                    | 91.83      | 3.70                         | 92.59      | 0.31                                   |
| 2034                                                                                                  | 4.06                    | 95.89      | 3.70                         | 96.30      | 0.36                                   |
| 2035                                                                                                  | 4.11                    | 100.00     | 3.70                         | 100.00     | 0.41                                   |

Source: The Washington Economics Group, Inc.



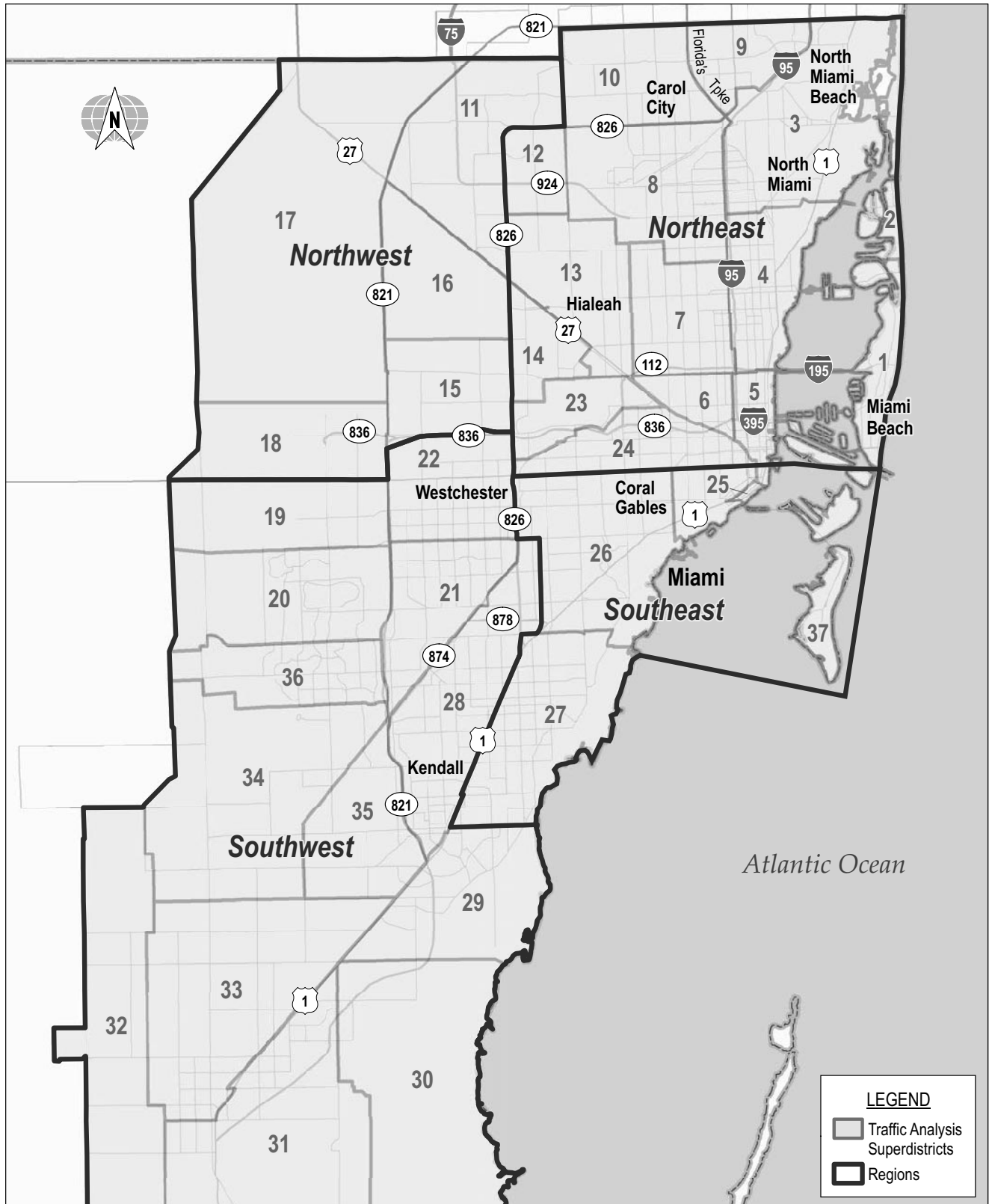
Recent reports from the U.S. Census Bureau have stated that Florida's rate of population growth slowed dramatically in 2008, the latest time period for which U.S. Census Bureau estimates are available, due to the economic downturn. As shown in Figure 3-6, the WEG population forecast starts out over 2 percent below trend in the early years of the forecast period, reaches the "straight line" growth rate in 2015, and then remains above the straight line trend rate by less than 1 percent for the remainder of the forecast period.

Population growth within Miami-Dade County specifically is relatively strong and continues in the Southern portion of the County, consistent with both MPO estimates and historical growth patterns. Residential growth has historically occurred in the southern and western portions of Miami-Dade County as this is where open and developable land tracts were, and are located. Large scale residential development targeted to meet the financial and other needs of new residents in the community is only possible where land is readily available for development. Since much of the open land in Miami-Dade County is environmentally sensitive or designated for other uses, remaining land tracts available for development are generally located in the southern and western areas of the County, east of the Everglades.

Employment growth is most prominent in the Northern portion of the County. Employment growth is most prominent in the Northern portion of the County due to the concentration of professional, industry clusters such as the Downtown Miami Business District, the Health District, the Port of Miami and Miami International Airport. These industries generate a significant majority of existing jobs and exhibit ongoing growth in the Northern portion of Miami-Dade County and are expected to continue to do so due to the concentration of the aforementioned industries. They have clustered in the Northern portion of the County based on historical patterns and their proximity to major transportation resources and connectors. These factors are expected to remain in place as transportation infrastructure and economic conditions improve.

## **REGIONAL OVERVIEW AND FORECAST IMPLICATIONS**

The MPO data sets for Miami-Dade County are composed of highly disaggregated data. The data for Miami-Dade County is broken down into 1,466 TAZs. Each TAZ covers a small area, typically a few blocks, and year-over-year growth is relatively small in each zone. In order to understand the implications of the data and to facilitate decision making based on the data, the data was re-aggregated into four geographic regions within Miami-Dade County: Northwest, Northeast, Southwest and Southeast, as shown in Figure 3-7. For purposes of this analysis, the



# **MIAMI-DADE COUNTY TRAFFIC ANALYSIS SUPERDISTRICTS AND REGIONS**

dividing line between the Northern and Southern portions of Miami-Dade County is defined as SW 8<sup>th</sup> Street and the dividing line between the Eastern and Western portions of the county is defined as the SR 826, Palmetto Expressway.

Analysis of the regional data for the forecast variables reveals that many of the patterns that have developed over the past few decades are expected to continue during the forecast period. Population growth within Miami-Dade County specifically is expected to continue, primarily in the Southern portion of the County. Employment growth is expected to increase most prominently in the Northern portion of the County, where industries such as financial services, health and medical, transportation and import-export support services have clustered due to historical patterns and their proximity to major transportation resources and connectors. Following is a detailed examination of several important variables.

#### POPULATION

Between 2008 and 2035 forecasters at the Miami-Dade MPO project the county's population to increase by 39 percent, from 2.4 million to 3.3 million. WEG's regional analysis indicates that just over half of the total growth will occur in the Southwest region. As shown in Table 3-3, at the present time the Northeast region of the county has the largest population. With strong population growth between 2008 and 2035, the Southwest region's population will approach that of the Northeast region. Table 3-3 demonstrates the magnitude of the expected growth. All regions of the county, with the exception of the Southwest region, will experience growth rates less than the 39 percent average growth rate for Miami-Dade County, while the Southwest region is estimated to grow by almost 64 percent.

**Table 3-3**  
**Total Population By Region**

| <b>Region</b>       | <b>2008</b>      | <b>2035</b>      | <b>Change</b>  | <b>Percent Change</b> |
|---------------------|------------------|------------------|----------------|-----------------------|
| Northeast           | 1,100,965        | 1,363,280        | 262,315        | 23.83                 |
| Northwest           | 208,087          | 286,145          | 78,058         | 37.51                 |
| Southeast           | 231,899          | 288,591          | 56,692         | 24.45                 |
| Southwest           | 818,232          | 1,340,139        | 521,907        | 63.78                 |
| <b>Total County</b> | <b>2,359,183</b> | <b>3,278,155</b> | <b>918,972</b> | <b>38.95</b>          |

Source: The Washington Economics Group, Inc.

## HOUSEHOLDS

The patterns seen in population growth are also seen in the forecasts for households. Table 3-4 shows that on a county-wide basis, total households are forecast to increase by 0.3 million, from just over 0.8 million to just over 1.1 million households. Within the county, the Southwest region is expected to account for over half of the new households being created, with a growth rate of 67 percent. This is followed by the Northeast region, which is expected to grow at a 24 percent rate, adding almost 100,000 households by 2035. Between 2008 and 2035 the Southeast and Northwest Regions are expected to add between 20,000 and 25,000 households each, 21 percent and 39 percent, respectively.

**Table 3-4**  
**Total Households by Region**

| <b>Region</b>       | <b>2008</b>    | <b>2035</b>      | <b>Change</b>  | <b>Percent Change</b> |
|---------------------|----------------|------------------|----------------|-----------------------|
| Northeast           | 407,815        | 507,143          | 99,328         | 24.36                 |
| Northwest           | 63,803         | 88,912           | 25,109         | 39.35                 |
| Southeast           | 96,103         | 116,629          | 20,526         | 21.36                 |
| Southwest           | 266,693        | 444,943          | 178,250        | 66.84                 |
| <b>Total County</b> | <b>834,414</b> | <b>1,157,627</b> | <b>323,213</b> | <b>38.74</b>          |

Source: The Washington Economics Group, Inc.

## VEHICLES

Between 2008 and 2035, the Miami-Dade MPO has estimated an increase in the number of vehicles in the county of 64 percent to 2.3 million. Just over half of the total increase in vehicles is estimated to occur in the Southwest region. As shown in Table 3-5, the Northeast region of the county has the largest number of vehicles, followed by the Southwest region. With strong population growth between 2008 and 2035, the number of vehicles in the Southwest region is projected to increase by almost 94 percent to just over 1 million vehicles. By 2035, the Southwest region is expected to have the largest number of vehicles in the four regions. These forecasts indicate that the while Population is expected to grow by 39 percent over the forecast period, the number of vehicles is expected to grow faster, by almost 64 percent.

**Table 3-5**  
**Total Vehicles by Region**

| <b>Region</b>       | <b>2008</b>      | <b>2035</b>      | <b>Change</b>  | <b>Percent Change</b> |
|---------------------|------------------|------------------|----------------|-----------------------|
| Northeast           | 615,311          | 895,333          | 280,022        | 45.51                 |
| Northwest           | 113,159          | 180,537          | 67,378         | 59.54                 |
| Southeast           | 164,832          | 232,206          | 67,374         | 40.87                 |
| Southwest           | 518,642          | 1,003,677        | 485,035        | 93.52                 |
| <b>Total County</b> | <b>1,411,944</b> | <b>2,311,753</b> | <b>899,809</b> | <b>63.73</b>          |

Source: The Washington Economics Group, Inc.

### WORKFORCE

The patterns seen in population, household and vehicle growth are also seen in the forecasts for where the Miami-Dade County workforce resides. Table 3-6 shows that on a county-wide basis, the workforce is projected to increase by 0.5 million, from 1.2 million to 1.7 million workers. The Southwest region is expected to lead the county in workforce growth, with over two thirds of the new workers choosing to reside in that region, producing a regional growth rate of 61 percent. This is followed by the Northeast region, which is expected to grow at a 21 percent rate, adding almost 113,000 additional workers by 2035. Between 2008 and 2035 the Southeast and Northwest Regions are expected to add between 25,000 and 30,000 new workers each, 17 and 32 percent, respectively.

**Table 3-6**  
**Total Workers by Region**

| <b>Region</b>       | <b>2008</b>      | <b>2035</b>      | <b>Change</b>  | <b>Percent Change</b> |
|---------------------|------------------|------------------|----------------|-----------------------|
| Northeast           | 543,122          | 655,814          | 112,692        | 20.75                 |
| Northwest           | 99,434           | 131,561          | 32,127         | 32.31                 |
| Southeast           | 145,320          | 169,846          | 24,526         | 16.88                 |
| Southwest           | 449,768          | 724,280          | 274,512        | 61.03                 |
| <b>Total County</b> | <b>1,237,644</b> | <b>1,681,501</b> | <b>443,857</b> | <b>35.86</b>          |

Source: The Washington Economics Group, Inc.

### EMPLOYMENT

Between 2008 and 2035, the Miami-Dade MPO estimates that the number of employees in all sectors of the county's economy will increase by 45 percent from 1.4 million to close to 2.0 million. Just over half of the total increase in employment will occur in the Northeast region. As shown in Table 3-7, currently the Northeast region of the county has the largest number of jobs, followed by the Southwest region. Between 2008 and 2035 the Northwest region will experience the largest percentage growth in employment, with an expected increase of 76 percent, or 138,000 jobs. When the two northern regions are combined, over three quarters of the employment growth will occur in the northern portions of the county, while a large percentage of the population (residential) growth is projected to occur in the Southwest Region.

**Table 3-7**  
**Total Employment by Region**

| <b>Region</b>       | <b>2008</b>      | <b>2035</b>      | <b>Change</b>  | <b>Percent Change</b> |
|---------------------|------------------|------------------|----------------|-----------------------|
| Northeast           | 767,344          | 1,084,230        | 316,886        | 41.30                 |
| Northwest           | 182,479          | 320,899          | 138,420        | 75.86                 |
| Southeast           | 186,635          | 258,029          | 71,394         | 38.25                 |
| Southwest           | 242,897          | 331,057          | 88,160         | 36.30                 |
| <b>Total County</b> | <b>1,379,355</b> | <b>1,994,215</b> | <b>614,860</b> | <b>44.58</b>          |

Source: The Washington Economics Group, Inc.

These trends present transportation planners and managers with tremendous challenges. In summary:

- People want to live in the southern portions of the county, primarily the Southwest Region;
- Currently, and in the foreseeable future, employment will be in the northern portions of the county;
- Distances between the workplace and the residential communities are significant;
- Transportation assets are not currently oriented toward meeting these future needs; and
- Significant investments in additional transportation assets, of all types, will be required if these emerging needs are to be accommodated, particularly in the southern and western portions of Miami-Dade County.

Table 3-8 summarizes the Miami-Dade County regional growth analysis by regions: Northeast, Northwest, Southeast and Southwest. It also highlights the breakdown of the socio-economic variables within the regions. More detailed tables can be found in Appendix I of WEG's full report attached as Appendix A to this study.

## **AIRPORT, PORT OF MIAMI, AND TOURISM TRENDS**

A trend analysis of international trade activity, airport passengers and annual visitors to Miami-Dade County is presented in this section. Airport passenger trends from the MIA and Fort Lauderdale/Hollywood International Airport (FLL) were both included.

The ongoing projects presented in the prior section will support the growth of international trade, air passengers and visitors.

### **PASSENGER ACTIVITY TRENDS AT MIA AND FLL AIRPORTS**

MIA had a strong recovery in passengers following negative growth rates after the tragic events of September 11, 2001. The five-year average annual growth rate of 3.6 percent between 2003 to 2008 significantly exceeded the growth rate of the prior years as shown in Table 3-9.

Once the Miami Intermodal Center (MIC) becomes fully operational in the next two years, and the global economy recovers from the 2008-2009 recession, passenger activity at both MIA and FLL is expected to return to the trend growth exhibited in the 2003-2008 period, and may accelerate moderately from this trend with the addition of the MIC facilities.

### **CARGO TRENDS AT MIA**

As shown in Table 3-10, international cargo activity at MIA accelerated during 2003-2007, and is expected to resume trend growth after a difficult 2008 and 2009, due to the deep global recession. MIA is benefiting from a number of factors that stimulate cargo activity. Among these factors are:

- The completion of a fourth runway that has added capacity;
- The operations of new state-of-the-art storage facilities; and
- The structural shift toward low-weight but high value-added international trade that is handled more cost effectively by air rather than ocean shipments.

**Table 3-8  
Regional Growth Analysis- Summary <sup>(1)</sup>  
Miami-Dade County**

|                                          | Region    |           |           |           | Total     |
|------------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                                          | Northeast | Northwest | Southeast | Southwest |           |
| <b>Total Population:</b>                 |           |           |           |           |           |
| 2008-Actual                              | 1,100,965 | 208,087   | 231,899   | 818,232   | 2,359,183 |
| 2035 Forecast                            | 1,363,280 | 286,145   | 288,591   | 1,340,139 | 3,278,155 |
| 2008-2035 Change                         | 262,315   | 78,058    | 56,692    | 521,907   | 918,972   |
| <b>Households (HH) Without Children:</b> |           |           |           |           |           |
| 2008-Actual                              | 289,829   | 34,120    | 69,368    | 157,038   | 550,355   |
| 2035 Forecast                            | 362,649   | 47,818    | 84,261    | 269,814   | 764,542   |
| 2008-2035 Change                         | 72,820    | 13,698    | 14,893    | 112,776   | 214,187   |
| <b>HH With Children:</b>                 |           |           |           |           |           |
| 2008-Actual                              | 117,986   | 29,683    | 26,735    | 109,655   | 284,059   |
| 2035 Forecast                            | 144,494   | 41,094    | 32,368    | 175,129   | 393,085   |
| 2008-2035 Change                         | 26,508    | 11,411    | 5,633     | 65,474    | 109,026   |
| <b>Vehicles in HH Without Children:</b>  |           |           |           |           |           |
| 2008-Actual                              | 375,340   | 48,364    | 104,230   | 258,924   | 786,858   |
| 2035 Forecast                            | 553,241   | 77,887    | 147,342   | 523,363   | 1,301,833 |
| 2008-2035 Change                         | 177,901   | 29,523    | 43,112    | 264,439   | 514,975   |
| <b>Vehicles in HH With Children:</b>     |           |           |           |           |           |
| 2008-Actual                              | 239,971   | 64,795    | 60,602    | 259,718   | 625,086   |
| 2035 Forecast                            | 342,093   | 102,650   | 84,864    | 480,314   | 1,009,921 |
| 2008-2035 Change                         | 102,121   | 37,855    | 24,262    | 220,596   | 384,834   |
| <b>Workers in HH Without Children:</b>   |           |           |           |           |           |
| 2008-Actual                              | 341,743   | 44,097    | 95,560    | 237,345   | 718,745   |
| 2035 Forecast                            | 417,963   | 58,939    | 112,048   | 397,425   | 986,375   |
| 2008-2035 Change                         | 76,220    | 14,842    | 16,488    | 160,080   | 267,630   |
| <b>Workers in HH with Children:</b>      |           |           |           |           |           |
| 2008-Actual                              | 201,379   | 55,337    | 49,760    | 212,423   | 518,899   |
| 2035 Forecast                            | 237,851   | 72,622    | 57,798    | 326,855   | 695,126   |
| 2008-2035 Change                         | 36,472    | 17,285    | 8,038     | 114,432   | 176,227   |
| <b>Population in HH without Children</b> |           |           |           |           |           |
| 2008-Actual                              | 597,669   | 79,404    | 135,612   | 358,508   | 1,171,193 |
| 2035 Forecast                            | 748,648   | 109,785   | 168,818   | 604,830   | 1,632,081 |
| 2008-2035 Change                         | 150,979   | 30,381    | 33,206    | 246,322   | 460,888   |
| <b>Population in HH with Children:</b>   |           |           |           |           |           |
| 2008-Actual                              | 503,296   | 128,683   | 96,287    | 459,724   | 1,187,990 |
| 2035 Forecast                            | 614,632   | 176,360   | 119,773   | 735,309   | 1,646,074 |
| 2008-2035 Change                         | 111,336   | 47,677    | 23,486    | 275,585   | 458,084   |
| <b>Elementary School Enrollment:</b>     |           |           |           |           |           |
| 2008-Actual                              | 79,530    | 17,437    | 15,004    | 65,021    | 176,992   |
| 2035 Forecast                            | 99,540    | 24,249    | 17,427    | 76,606    | 217,822   |
| 2008-2035 Change                         | 20,010    | 6,812     | 2,423     | 11,585    | 40,830    |

continued



**Table 3-8 (Cont'd.)**  
**Regional Growth Analysis- Summary <sup>(1)</sup>**  
**Miami-Dade County**

|                                       | Region    |           |           |           |           |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                                       | Northeast | Northwest | Southeast | Southwest | Total     |
| <b>Middle School Enrollment:</b>      |           |           |           |           |           |
| 2008-Actual                           | 31,328    | 8,093     | 9,403     | 23,535    | 72,359    |
| 2035 Forecast                         | 36,482    | 13,639    | 10,085    | 33,159    | 93,365    |
| 2008-2035 Change                      | 5,154     | 5,546     | 682       | 9,624     | 21,006    |
| <b>High School Enrollment:</b>        |           |           |           |           |           |
| 2008-Actual                           | 43,460    | 9,274     | 10,312    | 38,909    | 101,955   |
| 2035 Forecast                         | 48,327    | 13,458    | 10,728    | 54,024    | 126,537   |
| 2008-2035 Change                      | 4,867     | 4,184     | 416       | 15,115    | 24,582    |
| <b>Private School Enrollment:</b>     |           |           |           |           |           |
| 2008-Actual                           | 33,923    | 6,472     | 19,062    | 26,242    | 85,699    |
| 2035 Forecast                         | 49,457    | 10,873    | 30,959    | 42,403    | 133,692   |
| 2008-2035 Change                      | 15,534    | 4,401     | 11,897    | 16,161    | 47,993    |
| <b>College/University Enrollment:</b> |           |           |           |           |           |
| 2008-Actual                           | 91,990    | 0         | 14,122    | 71,617    | 177,729   |
| 2035 Forecast                         | 164,615   | 1,708     | 40,648    | 111,493   | 318,464   |
| 2008-2035 Change                      | 72,625    | 1,708     | 26,526    | 39,876    | 140,735   |
| <b>Industrial Employment:</b>         |           |           |           |           |           |
| 2008-Actual                           | 76,075    | 30,662    | 7,655     | 24,417    | 138,809   |
| 2035 Forecast                         | 82,133    | 36,931    | 8,173     | 25,623    | 152,860   |
| 2008-2035 Change                      | 6,058     | 6,269     | 518       | 1,206     | 14,051    |
| <b>Commercial Employment:</b>         |           |           |           |           |           |
| 2008-Actual                           | 111,205   | 41,211    | 21,798    | 45,260    | 219,474   |
| 2035 Forecast                         | 135,258   | 58,560    | 25,688    | 60,067    | 279,573   |
| 2008-2035 Change                      | 24,053    | 17,349    | 3,890     | 14,807    | 60,099    |
| <b>Service Sector Employment:</b>     |           |           |           |           |           |
| 2008-Actual                           | 580,064   | 110,606   | 157,182   | 173,220   | 1,021,072 |
| 2035 Forecast                         | 866,839   | 225,408   | 224,168   | 245,367   | 1,561,782 |
| 2008-2035 Change                      | 286,775   | 114,802   | 66,986    | 72,147    | 540,710   |
| <b>Total Employment</b>               |           |           |           |           |           |
| 2008-Actual                           | 767,344   | 182,479   | 186,635   | 242,897   | 1,379,355 |
| 2035 Forecast                         | 1,084,230 | 320,899   | 258,029   | 331,057   | 1,994,215 |
| 2008-2035 Change                      | 316,886   | 138,420   | 71,394    | 88,160    | 614,860   |
| <b>Hotel Rooms</b>                    |           |           |           |           |           |
| 2008-Actual                           | 27,814    | 3,002     | 3,345     | 1,643     | 35,804    |
| 2035 Forecast                         | 52,236    | 5,082     | 5,597     | 3,906     | 66,821    |
| 2008-2035 Change                      | 24,422    | 2,080     | 2,252     | 2,263     | 31,017    |

<sup>(1)</sup> Numbers shown are based on 37 traffic analysis sSuperdistricts for Miami-Dade County.

Sources: Miami-Dade County, Department of Planning and Zoning and The Washington Economics Group, Inc.

**Table 3-9**  
**Comparison of Passenger Trends**  
**Miami and Fort Lauderdale Airports**

| Year                                 | Miami International (MIA)<br>(Thousands of Passengers) |        |        |                | Fort Lauderdale (FLL)<br>(Thousands of Passengers) |       |        |                |
|--------------------------------------|--------------------------------------------------------|--------|--------|----------------|----------------------------------------------------|-------|--------|----------------|
|                                      | Domestic                                               | Int'l  | Total  | Percent Change | Domestic                                           | Int'l | Total  | Percent Change |
| 1999                                 | 18,372                                                 | 15,632 | 34,004 | -              | 12,621                                             | 1,369 | 13,990 | -              |
| 2000                                 | 17,441                                                 | 16,180 | 33,621 | (1.1)          | 14,387                                             | 1,473 | 15,860 | 13.4           |
| 2001                                 | 16,419                                                 | 15,249 | 31,668 | (5.8)          | 15,013                                             | 1,395 | 16,408 | 3.5            |
| 2002                                 | 15,794                                                 | 14,266 | 30,060 | (5.1)          | 15,835                                             | 1,203 | 17,038 | 3.8            |
| 2003                                 | 15,739                                                 | 13,856 | 29,595 | (1.5)          | 16,607                                             | 1,331 | 17,938 | 5.3            |
| 2004                                 | 16,186                                                 | 13,980 | 30,166 | 1.9            | 19,150                                             | 1,669 | 20,819 | 16.1           |
| 2005                                 | 16,767                                                 | 14,241 | 31,008 | 2.8            | 20,163                                             | 2,228 | 22,391 | 7.6            |
| 2006                                 | 17,806                                                 | 14,728 | 32,534 | 4.9            | 18,995                                             | 2,374 | 21,369 | (4.6)          |
| 2007                                 | 18,199                                                 | 15,541 | 33,740 | 3.7            | 19,824                                             | 2,858 | 22,682 | 6.1            |
| 2008                                 | 17,917                                                 | 16,147 | 34,064 | 1.0            | 19,579                                             | 3,043 | 22,622 | (0.3)          |
| 2009                                 | 17,916                                                 | 15,970 | 33,886 | (0.5)          | 18,033                                             | 3,027 | 21,060 | (6.9)          |
| <b>Average Annual Percent Change</b> |                                                        |        |        |                |                                                    |       |        |                |
| 1999-2009                            | (0.3)                                                  | 0.2    | (0.0)  |                | 3.6                                                | 8.3   | 4.2    |                |
| 1999-2004                            | (2.5)                                                  | (2.2)  | (2.4)  |                | 8.7                                                | 4.0   | 8.3    |                |
| 2004-2009                            | 2.1                                                    | 2.7    | 2.4    |                | (1.2)                                              | 12.6  | 0.2    |                |

| Year                                 | MIA/FLL Combined Totals<br>(Thousands of Passengers) |        |        |                | Miami Share |       |       |
|--------------------------------------|------------------------------------------------------|--------|--------|----------------|-------------|-------|-------|
|                                      | Domestic                                             | Int'l  | Total  | Percent Change | Domestic    | Int'l | Total |
| 1999                                 | 30,993                                               | 17,001 | 47,994 | -              | 59.3        | 91.9  | 70.9  |
| 2000                                 | 31,828                                               | 17,653 | 49,481 | 3.1            | 54.8        | 91.7  | 67.9  |
| 2001                                 | 31,432                                               | 16,644 | 48,076 | (2.8)          | 52.2        | 91.6  | 65.9  |
| 2002                                 | 31,629                                               | 15,469 | 47,098 | (2.0)          | 49.9        | 92.2  | 63.8  |
| 2003                                 | 32,346                                               | 15,187 | 47,533 | 0.9            | 48.7        | 91.2  | 62.3  |
| 2004                                 | 35,336                                               | 15,649 | 50,985 | 7.3            | 45.8        | 89.3  | 59.2  |
| 2005                                 | 36,930                                               | 16,469 | 53,399 | 4.7            | 45.4        | 86.5  | 58.1  |
| 2006                                 | 36,801                                               | 17,102 | 53,903 | 0.9            | 48.4        | 86.1  | 60.4  |
| 2007                                 | 38,023                                               | 18,399 | 56,422 | 4.7            | 47.9        | 84.5  | 59.8  |
| 2008                                 | 37,496                                               | 19,190 | 56,686 | 0.5            | 47.8        | 84.1  | 60.1  |
| 2009                                 | 35,949                                               | 18,997 | 54,946 | (3.1)          | 49.8        | 84.1  | 61.7  |
| <b>Average Annual Percent Change</b> |                                                      |        |        |                |             |       |       |
| 1999-2009                            | 1.5                                                  | 1.1    | 1.4    |                |             |       |       |
| 1999-2004                            | 2.7                                                  | (1.6)  | 1.2    |                |             |       |       |
| 2004-2009                            | 0.3                                                  | 4.0    | 1.5    |                |             |       |       |

Sources: Miami International Airport Traffic Report and The Washington Economics Group (WEG).

**Table 3-10**  
**Trade (Cargo) Activity Trends**  
**Miami International Airport**

| Year                                 | Cargo (Thousands of Tons) |               |       | Percent Change |
|--------------------------------------|---------------------------|---------------|-------|----------------|
|                                      | Domestic                  | International | Total |                |
| 1999                                 | 353                       | 1,507         | 1,860 | -              |
| 2000                                 | 356                       | 1,455         | 1,811 | (2.6)          |
| 2001                                 | 443                       | 1,365         | 1,808 | (0.2)          |
| 2002                                 | 401                       | 1,390         | 1,791 | (0.9)          |
| 2003                                 | 346                       | 1,459         | 1,805 | 0.8            |
| 2004                                 | 344                       | 1,617         | 1,961 | 8.6            |
| 2005                                 | 334                       | 1,600         | 1,934 | (1.4)          |
| 2006                                 | 322                       | 1,696         | 2,018 | 4.3            |
| 2007                                 | 327                       | 1,794         | 2,121 | 5.1            |
| 2008                                 | 270                       | 1,722         | 1,992 | (6.1)          |
| 2009                                 | 227                       | 1,491         | 1,718 | (13.8)         |
| <b>Average Annual Percent Change</b> |                           |               |       |                |
| 1999-2009                            | (4.3)                     | (0.1)         | (0.8) |                |
| 1999-2004                            | (0.5)                     | 1.4           | 1.1   |                |
| 2004-2009                            | (8.0)                     | (1.6)         | (2.6) |                |

Sources: Miami International Airport Traffic Report and  
The Washington Economics Group (WEG).

### TOURISM TRENDS

Annual visitors to Miami-Dade County grew at a moderate pace in the 1998-2008 period, except for the declines induced by the 9/11 (2001) events. As in the case of MIA passengers, the growth rate accelerated during the 2003-2008 period compared to the prior five years as shown in Table 3-11.

Miami-Dade County enjoys a global brand in the travel and hospitality industry. Therefore, once recessionary conditions subside, starting in 2010, WEG expects the resumption of the 2003-2008 growth trend of visitors to the county.

**Table 3-11**  
**Miami-Dade Tourism Trends**

| Year                                 | Annual Visitors (Thousands) |               |        | Percent Change |
|--------------------------------------|-----------------------------|---------------|--------|----------------|
|                                      | Domestic                    | International | Total  |                |
| 1998                                 | 4,469                       | 5,268         | 9,737  | -              |
| 1999                                 | 4,426                       | 5,470         | 9,896  | 1.6            |
| 2000                                 | 5,475                       | 5,684         | 11,159 | 12.8           |
| 2001                                 | 5,264                       | 5,246         | 10,510 | (5.8)          |
| 2002                                 | 5,316                       | 4,915         | 10,231 | (2.7)          |
| 2003                                 | 5,640                       | 4,805         | 10,445 | 2.1            |
| 2004                                 | 5,727                       | 5,235         | 10,962 | 4.9            |
| 2005                                 | 6,029                       | 5,273         | 11,302 | 3.1            |
| 2006                                 | 6,263                       | 5,322         | 11,585 | 2.5            |
| 2007                                 | 6,473                       | 5,493         | 11,966 | 3.3            |
| 2008                                 | 6,341                       | 5,787         | 12,128 | 1.4            |
| <b>Average Annual Percent Change</b> |                             |               |        |                |
| 1998-2008                            | 3.6                         | 0.9           | 2.2    |                |
| 1998-2003                            | 4.8                         | (1.8)         | 1.4    |                |
| 2003-2008                            | 2.4                         | 3.8           | 3.0    |                |

Sources: Synovate, Jan-Dec 2009 Profile of Overnight Visitors to Greater Miami and the Beaches and The Washington Economics Group (WEG).

#### **PORT OF MIAMI ACTIVITY TRENDS**

International cargo activity at the Port of Miami and at MIA presented a mixed picture from 1999-2009. Port of Miami operating trends showed sluggish conditions at the Seaport as shown in Table 3-12. Ship visits, cargo activity and passengers were flat-to-negative in the 2004-2009 period. The Port of Miami is suffering from a combination of growing operating costs and increased competition from other ports in Florida, the U.S. and the Caribbean.

The Port of Miami Tunnel, to be operational in the next five years, will directly link the Port to multimodal venues such as I-95 and rail. This is expected to decrease the costs to shippers and other commercial vehicles utilizing the Port. Therefore, beginning in 2010, it can be expected that Port activity will start a moderate recovery, as the global economy emerges from recession and accelerates and as the Port Tunnel improves productivity and lowers rising shipping costs.

**Table 3-12**  
**Port of Miami Operating Trends**

| Year                                 | Ship Visits | Percent Change | Cargo<br>in Tons (000s) | Percent Change | Passengers<br>(000s) | Percent Change |
|--------------------------------------|-------------|----------------|-------------------------|----------------|----------------------|----------------|
| 1999                                 | 3,631       | -              | 6,930                   | -              | 3,112                | -              |
| 2000                                 | 3,447       | (5.1)          | 7,805                   | 12.6           | 3,364                | 8.1            |
| 2001                                 | 3,350       | (2.8)          | 8,247                   | 5.7            | 3,391                | 0.8            |
| 2002                                 | 3,529       | 5.3            | 8,682                   | 5.3            | 3,642                | 7.4            |
| 2003                                 | 2,936       | (16.8)         | 9,002                   | 3.7            | 3,961                | 8.8            |
| 2004                                 | 2,872       | (2.2)          | 9,230                   | 2.5            | 3,500                | (11.6)         |
| 2005                                 | 2,733       | (4.8)          | 9,474                   | 2.6            | 3,605                | 3.0            |
| 2006                                 | 2,608       | (4.6)          | 8,654                   | (8.7)          | 3,732                | 3.5            |
| 2007                                 | 2,335       | (10.5)         | 7,835                   | (9.5)          | 3,787                | 1.5            |
| 2008                                 | 2,413       | 3.3            | 7,430                   | (5.2)          | 4,138                | 9.3            |
| 2009                                 | 2,501       | 3.6            | 6,831                   | (8.1)          | 4,110                | (0.7)          |
| <b>Average Annual Percent Change</b> |             |                |                         |                |                      |                |
| 1999-2009                            | (3.7)       |                | (0.1)                   |                | 2.8                  |                |
| 1999-2004                            | (4.6)       |                | 5.9                     |                | 2.4                  |                |
| 2004-2009                            | (2.7)       |                | (5.8)                   |                | 3.3                  |                |

Source: Miami-Dade County Port of Miami and the Washington Economics Group (WEG).

## SUMMARY

Based on historical growth data and long-term trends, WEG completed their forecast analysis of population and socio-economic projections for Miami-Dade, Broward and Palm Beach Counties. It is their professional opinion that the estimates contained herein are reasonable and properly reflect the current and forecasted projections of economic and social activity in the tri-county region.

# CHAPTER 4

## TRAFFIC MODEL DEVELOPMENT

Chapter 4 summarizes the development of the travel demand model used to estimate future year traffic and revenue under both the existing toll collection system and ORT system on the MDX facilities. Model assumptions are provided, such as proposed tolling alternatives and toll rates, value of time and vehicle operating costs. Integration of the results of an independent review of socioeconomic forecasts by WEG into the travel demand model is also discussed.

Another major component of traffic model development is preparation of the highway networks. Extensive reviews of regional highway improvement assumptions, as well as a detailed analysis of traffic profiles on each of the MDX facilities have been conducted. Additionally, an extensive effort has been devoted to refinement and calibration of the Southeast Florida Regional Planning Model (SERPM) 6.5.

The following text covers the analysis methodology, assumptions employed, steps taken to reflect the socioeconomic update, and the results of analyses of ORT video surcharges. These analyses were used to select the surcharge rates employed in this study. The resulting estimated annual traffic and toll revenue for both the Existing System and ORT scenarios are provided in Chapters 5 and 6.

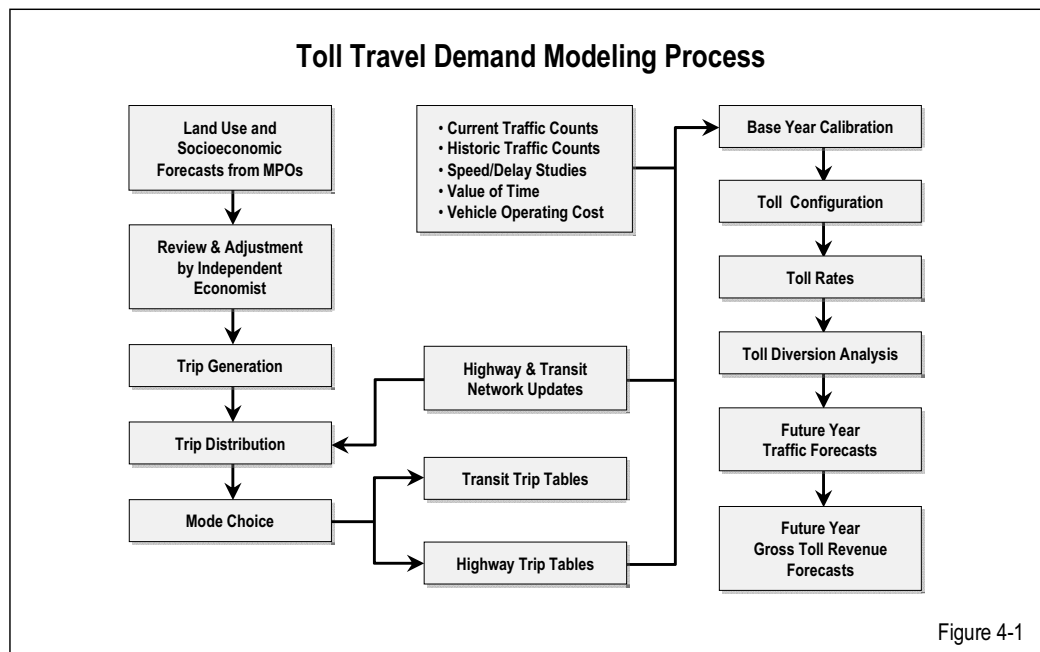
### ANALYSIS METHODOLOGY

This section describes the general procedures followed to prepare the forecasts of annual traffic and gross toll revenue. While the forecasting process for this study generally involved three major steps identified below, Figure 4-1 depicts the entire process schematically.

- Develop a base year (2008) and future year (2010, 2011, 2012, 2015, 2025 and 2035) regional travel demand models. The base year model was based on the SERPM 6.5 regional travel demand model that was

calibrated against traffic counts on the MDX Expressways mainlines and ramps as part of a model calibration task;

- Develop trip tables for years 2010, 2011, 2012, 2015, 2025, and 2035 based on updates to socioeconomic data growth schedules and highway networks; and
- Estimate year 2010, 2011, 2012, 2015, 2025 and 2035 traffic demand with the highway assignment component of the travel demand model using revised trip tables, updated highway networks, and other model inputs described in this chapter.



## REGIONAL TRANSPORTATION DEMAND MODEL

The model used for this study is based on the SERPM, version 6.5, developed by the District 4 office of the Florida Department of Transportation (FDOT).

The model area covers Miami-Dade, Broward and Palm Beach Counties and is divided into approximately 4,300 traffic analysis zones (TAZ). TAZs generally contain only a few blocks of residential and/or commercial properties. WSA uses the time-of-day model, meaning that the model is run separately for the AM peak period (6:30-9:30 AM), the

PM peak period (3:30-6:30 PM), and the off-peak period (remaining hours).

The SERPM model runs the complete four-step travel demand modeling process – trip generation, trip distribution, mode choice and traffic assignment. Trip generation uses socio-economic information to estimate the number of trips produced and attracted to each TAZ. Trip distribution estimates the number of trips that move between zones. Mode split estimates which mode of transport these trips will use. Finally, traffic assignment allocates these trips to routings throughout the highway and transit networks.

FDOT supplied WSA with data for two model years, 2005 and 2035. These were then used to create the 2008 base year and interim future year models used in this study. The process for developing models and networks for years 2008, 2010, 2011, 2012, 2015, 2025 and 2035 are described below.

## **TRANSPORTATION DEMAND MODEL MODIFICATIONS**

WSA used the SERPM model to run the trip generation, trip distribution and mode choice steps of the travel demand model. The output of these steps is a set of trip tables that estimate travel demand between the various TAZs based on the socioeconomic assumptions.

The traffic assignment step was run using a methodology that differs from SERPM and other travel demand models. In SERPM, the toll cost is represented at toll plazas by converting that cost to an additional time impedance. Based on past experience, WSA has found that this inadequately models toll diversion and motorists' sensitivity to changes in tolls. As a result, WSA used a modified traffic assignment procedure, which WSA believes better accounts for diversion.

The following sections discuss WSA's changes to the highway networks; the development of modified trip tables; a description of the tolled traffic assignment procedure; and a summary of basic model assumptions.

### **TRAFFIC NETWORK DEVELOPMENT**

The distances and travels costs associated with the traffic networks are instrumental in the trip distribution, mode choice and traffic assignment model process. A significant amount of effort was employed in reviewing and modifying the traffic networks for this study.



WSA first developed a 2008 base year network for model calibration purposes. This network was developed by recoding the MDX facilities to accurately reflect ramp configurations and attributes while also updating the year 2005 SERPM network by incorporating all highway improvements that had been constructed and open to traffic since 2005, including the Extension of SR 836 to NW 137<sup>th</sup> Avenue. A list of these projects is shown in the traffic engineers traffic and revenue study report.

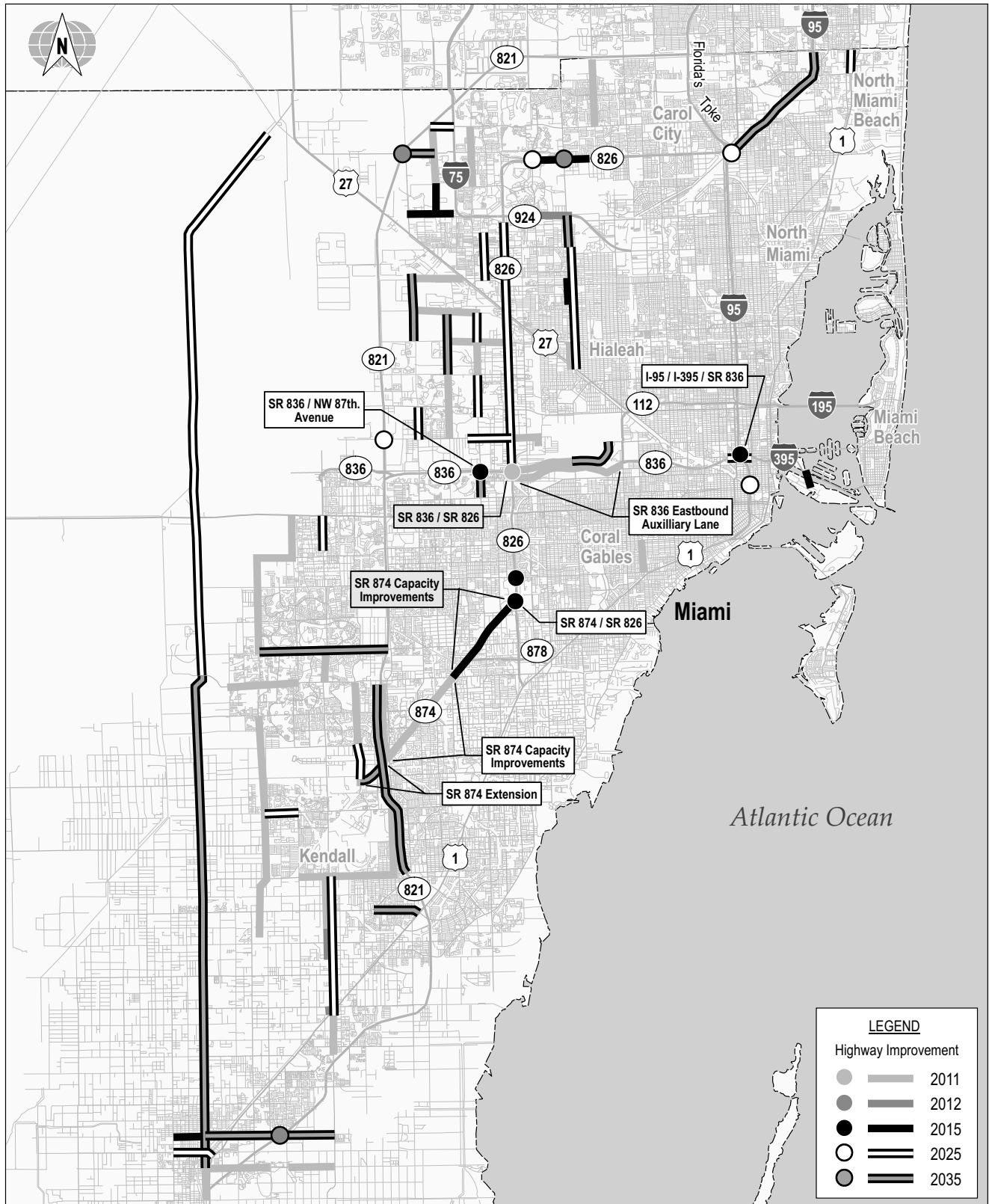
In order to properly forecast long term traffic demand, those transportation improvements that can be reasonably expected to be completed need to be included in the future year traffic networks. Since the SERPM traffic networks had not been revised since 2006, an update of the cost-feasible projects to be included in the future year networks was necessary. Project information provided by FDOT, MDX, Florida's Turnpike Enterprise and others was used to create a cost-feasible project list for inclusion in the future year model networks. Each of the cost-feasible projects was then individually reviewed to ensure that the capacities, number of lanes, speeds, and other properties were correct according to the Transportation Improvement Program, Long Range Transportation Plan, MDX Planning Documents, and discussions with FDOT, MDX, Florida's Turnpike and others. The result was a 2035 cost-feasible network that was used with the SERPM modeling process to generate a 2035 trip table.

Similar efforts were undertaken to develop cost-feasible networks for years 2011, 2012, 2013, 2015, 2025 and 2035.

***Regional Transportation Improvement Program*** - A significant number of important transportation improvements are currently programmed for the MDX System corridors and along principal competing freeways and routes. Many of the new roadways and the expansion of existing facilities will be needed to accommodate the socioeconomic growth that is projected. While the growth in population, households and employment will substantially increase travel demand, the additional capacity needed to support this growth will also provide additional competition to some of the MDX-operated facilities in the future.

A summary of future year programmed regional highway improvements is graphically depicted in Figure 4-2 and were included in the cost-feasible traffic networks at the appropriate years to conduct the traffic and revenue analysis. WSA consulted with MDX on the implementation years of all major highway improvements in order to verify these assumptions.

MDX has considered a number of potential improvements to their system, as summarized in the MDX 2035 Long Range Transportation Plan (LRTP)



## MAJOR PROGRAMMED REGIONAL HIGHWAY IMPROVEMENTS

and by the September 2007 MDX Future Projects Forum Visioning / Financing Workshop. At the direction of MDX, only those “visioning” projects scheduled for funding and construction by 2035 were included in this study. This included only one project, the SR 874 Ramp Connector, which is scheduled to be funded, constructed and open to traffic by 2035.

A number of interchange and capacity improvements are scheduled for SR 836. An eastbound auxiliary lane between SR 826 and NW 42<sup>nd</sup> Avenue has been included in the traffic networks, beginning in 2010. Construction of improvements for the SR 836 / SR 826 interchange will begin in 2011 and will continue to 2013. These two projects are expected to have a significant impact on travel in the region, given the importance of the SR 836 / SR 826 interchange to both north-south and east-west travel. Lastly, the interchange between I-95, I-395 and SR 836 will be reconfigured by 2015. Auxiliary lanes on SR 836 accessing I-95 will be added and existing ramps will be reconfigured. Besides access from the I-95 southbound exit ramps to NW North River Drive, no new movements will be added.

SR 874 also has several construction projects programmed that will increase capacity, provide greater access, and simplify existing movements. Between the HEFT and SW 88<sup>th</sup> Street / Kendall Parkway, SR 874 will be widened and the SR 874 / Killian Parkway interchange will be reconstructed. As part of this project, the existing mainline plaza will be removed and replaced by an ORT gantry in anticipation of the conversion to ORT. Construction on this project will be complete by 2011. The northern half of SR 874, from SW 88<sup>th</sup> Street / Kendall Parkway to SR 826 will be widened to six lanes. Additionally, the SR 874 / SR 826 interchange will be reconstructed. These changes have been included in the traffic networks beginning in 2015, which is the first future year network following the completion of these projects. Taken together, these projects are expected to significantly increase the existing capacity of SR 874, improve access and simplify existing movements. In 2035, the SR 874 ramp connector will open. The new facility will run between SW 136<sup>th</sup> Street at AW 127<sup>th</sup> Avenue and the existing SR 874 connection to the HEFT. The SR 874 ramp connector will provide greater access to the residents living in southwest Miami-Dade County.

Other major roadways in Miami-Dade County also have programmed improvements that may affect traffic on MDX facilities. On the HEFT, roadway widening near the southern terminus of SR 874 in 2011 and in 2035 may have a negative impact on SR 874 traffic. A new interchange schedule to open in 2025 on the HEFT at NW 25<sup>th</sup> Street, combined with roadway widening on NW 25<sup>th</sup> Street, is expected to negatively impact

traffic volumes on the west end of SR 836 by making travel on the arterial roadway more attractive. Also in 2025, the opening of special use lanes on SR 826 between I-75 and SR 836 is expected to have an impact on traffic volumes on SR 924, SR 836 and SR 874.

Overall, there are a number of major roadway projects scheduled to be constructed and opened between 2008 and 2035 that stand to have impacts on existing and planned MDX facilities.

#### **LAND USE AND SOCIOECONOMIC ASSUMPTIONS**

Land use and socioeconomic data for the base (2005) and future (2035) years prepared by the MPOs were reviewed by independent economist, WEG. As discussed in Chapter 3, based on their review, the 2035 MPO forecasts were reasonable and properly reflected expected economic and demographic activity in the tri-county region.

WEG reviewed the 2005 socioeconomic data and determined that there had been little net change in population (the key determinant of most of the other socioeconomic input variables) between 2005 and 2008. Therefore, it was WEG's professional opinion that the 2005 datasets were sufficient to estimate 2008 socioeconomic levels and was appropriate to use for developing 2008 trip tables. Therefore, the 2005 socioeconomic variables provided by the MPOs, and reviewed by WEG, were unchanged and used as the socioeconomic variables for 2008.

#### **TRIP TABLE DEVELOPMENT**

The socioeconomic data provided by the MPO and reviewed by WEG, along with the revised traffic networks, were input into the SERPM model. WSA ran the SERPM model at year 2008 and year 2035 levels using the full four-step process of trip generation, trip distribution, mode split and traffic assignment, as described below.

The results of the first three steps of the SERPM model, trip generation, trip distribution and mode split, were the production of year 2008 and 2035 highway trip tables.

However, the MPOs provided no interim year forecasts between the 2008 base and 2035 future year data sets. Given the current economic climate, simply interpolating the socioeconomic data between these two years would have generally overestimated growth in the early years of the study forecast period.

Therefore, WEG provided an alternative growth schedule as presented in Chapter 3 and shown here in Table 4-1. The table illustrates the difference between a straight-line percent change and the percent change according to the growth schedule prepared by WEG. The table provides the percent of the difference between the 2008 and 2035 socioeconomic variables that should be applied for each forecast year. For example, while a straight-line approach would apply 25.93 of the difference between the 2008 and 2035 socioeconomic variables in 2015, WEG's forecast would apply 16.02 percent of that difference.

**Table 4-1**  
**Miami-Dade County Population Growth Profile**  
**2008 - 2035**

| Year | Forecast Percent Change |            | Straight-Line Percent Change |            | Difference In<br>Period<br>Growth Rate |
|------|-------------------------|------------|------------------------------|------------|----------------------------------------|
|      | Period                  | Cumulative | Period                       | Cumulative |                                        |
| 2008 | -                       | -          | -                            | -          | -                                      |
| 2009 | 1.06                    | 1.06       | 3.70                         | 3.70       | (2.64)                                 |
| 2010 | 1.39                    | 2.46       | 3.70                         | 7.41       | (2.31)                                 |
| 2011 | 1.65                    | 4.11       | 3.70                         | 11.11      | (2.05)                                 |
| 2012 | 2.24                    | 6.35       | 3.70                         | 14.81      | (1.47)                                 |
| 2013 | 2.82                    | 9.17       | 3.70                         | 18.52      | (0.89)                                 |
| 2014 | 3.21                    | 12.38      | 3.70                         | 22.22      | (0.49)                                 |
| 2015 | 3.64                    | 16.02      | 3.70                         | 25.93      | (0.06)                                 |
| 2016 | 4.16                    | 20.18      | 3.70                         | 29.63      | 0.46                                   |
| 2017 | 4.17                    | 24.35      | 3.70                         | 33.33      | 0.46                                   |
| 2018 | 4.17                    | 28.52      | 3.70                         | 37.04      | 0.46                                   |
| 2019 | 4.21                    | 32.72      | 3.70                         | 40.74      | 0.50                                   |
| 2020 | 4.27                    | 36.99      | 3.70                         | 44.44      | 0.56                                   |
| 2021 | 4.33                    | 41.32      | 3.70                         | 48.15      | 0.62                                   |
| 2022 | 4.39                    | 45.71      | 3.70                         | 51.85      | 0.69                                   |
| 2023 | 4.45                    | 50.16      | 3.70                         | 55.56      | 0.75                                   |
| 2024 | 4.52                    | 54.68      | 3.70                         | 59.26      | 0.81                                   |
| 2025 | 4.16                    | 58.84      | 3.70                         | 62.96      | 0.46                                   |
| 2026 | 4.21                    | 63.05      | 3.70                         | 66.67      | 0.51                                   |
| 2027 | 4.27                    | 67.32      | 3.70                         | 70.37      | 0.56                                   |
| 2028 | 4.32                    | 71.64      | 3.70                         | 74.07      | 0.62                                   |
| 2029 | 4.38                    | 76.02      | 3.70                         | 77.78      | 0.68                                   |
| 2030 | 3.89                    | 79.91      | 3.70                         | 81.48      | 0.18                                   |
| 2031 | 3.93                    | 83.83      | 3.70                         | 85.19      | 0.23                                   |
| 2032 | 3.97                    | 87.81      | 3.70                         | 88.89      | 0.27                                   |
| 2033 | 4.02                    | 91.83      | 3.70                         | 92.59      | 0.31                                   |
| 2034 | 4.06                    | 95.89      | 3.70                         | 96.30      | 0.36                                   |
| 2035 | 4.11                    | 100.00     | 3.70                         | 100.00     | 0.41                                   |

Source: The Washington Economics Group, Inc.

Toll WEG had forecast that the variables used to develop the 2008 and 2035 trip tables (i.e. households, employment, vehicles per household, etc.) should all be expected to grow according to the Forecast Percent Change columns of Table 4-1, Population Growth Profile. Since the trip tables are a product of these variables, it was assumed reasonable to take the difference in the trip ends between 2008 and 2035 for each TAZ and use the growth schedule provided by WEG to create interim year trip tables.

#### **MODEL CALIBRATION/VALIDATION**

The year 2008 model output volumes were compared to 2008 average annual daily count data on the MDX facilities. Volumes from FDOT were used for other routes. The goal of the validation process was to have the model assign 2008 traffic volumes to replicate actual average annual daily traffic (AADT) volumes on the MDX facilities and its adjacent roadways. As calibration progressed, minor adjustments and corrections to the model inputs (primarily the highway network) were made in an attempt to obtain a better fit between the MDX actual AADT counts and the assigned volumes. The technical memorandum describing the calibration process and presenting screenline analyses is provided in the traffic engineer's traffic and revenue study as Appendix B.

#### **COLLECTION PERCENTAGES BY PAYMENT TYPE**

The final trip tables for traffic assignment that are used in the SERPM model are partitioned into four purposes: "drive alone" trips, HOV2, HOV3+ and trucks. This, however, prevents the model from adequately recognizing the difference between cash and SunPass<sup>®</sup> toll charges. Therefore, the trip tables output from SERPM were apportioned so that the different toll charges for cash and SunPass<sup>®</sup> users could be taken into account. The percentages used for passenger cars and commercial vehicles were based on 2008 SunPass<sup>®</sup> and Cash transaction data on the MDX system.

Table 4-2 provides the assumptions for the percentage of SunPass<sup>®</sup> and cash customers used for disaggregating trip tables into SunPass<sup>®</sup> and cash market segments for the Existing System and the percentage of SunPass<sup>®</sup> and video market segments for the ORT system for each model year. These model "input assumptions" were based on recent historic trends and estimated future SunPass<sup>®</sup> percentages for the Existing System, plus the estimated percent of cash customers who would switch to SunPass<sup>®</sup> when the ORT system was implemented. Market share penetration of SunPass<sup>®</sup> has begun to flatten out in recent years and would not be expected to make significant advances in market share without a further price differential between SunPass<sup>®</sup> and cash tolls.

**Table 4-2**  
**Cash, SunPass and Video Tolling**  
**Traffic Model Input Assumptions (%)**  
**Passenger Cars**

| Year | Existing System |      | Open Road Tolling |                |                |
|------|-----------------|------|-------------------|----------------|----------------|
|      | SunPass         | Cash | SunPass           | Video Tolling  |                |
|      |                 |      |                   | Pre-Registered | Non-Registered |
| 2008 | 69              | 31   | n.a.              | n.a.           | n.a.           |
| 2009 | 71              | 29   | n.a.              | n.a.           | n.a.           |
| 2010 | 72              | 28   | 83                | 9              | 8              |
| 2011 | 73              | 27   | 84                | 8              | 8              |
| 2012 | 74              | 26   | 85                | 8              | 7              |
| 2015 | 77              | 23   | 86                | 7              | 7              |
| 2025 | 79              | 21   | 87                | 7              | 6              |
| 2035 | 81              | 19   | 88                | 6              | 6              |

It should be noted that these “input percentages” were used as the starting point in apportioning the total number of trips into theoretical market shares of SunPass<sup>®</sup>, cash and video tolling customers. Since SunPass<sup>®</sup> users would be subjected to lower toll rates than video tolling users, the “output percentages” for SunPass<sup>®</sup> users would be higher; hence, the output proportion of SunPass<sup>®</sup> users would be higher than the input assumptions when the traffic model is run. Attempting to account for this, WSA reduced the SunPass<sup>®</sup> model “input” percentages calculated from the MDX axle data by 3 percent for both cars and commercial vehicles.

Under ORT in 2011, WSA assumed that 40 percent of the cash customer transactions would switch to SunPass<sup>®</sup>. This assumption was based on past experience with facilities converting their cash system to ORT. For example, the E-470 Public Highway Authority implemented all-electronic tolling on E-70 in January 2009. To date, approximately 10-20 percent of cash customers have shifted to electronic toll collection. We believe that the primary reason for the relatively low shift percentage is the result of a low toll rate differential between the video and electronic tolling options. Currently, the video toll is only 10 percent higher than EXpressToll, E-470s electronic tolling program. Therefore, there is currently little incentive to shift to electronic tolling. The MDX surcharge will be between 30-60 percent depending on trip length and Expressway.

Because the percent toll differential between ORT and video is higher on the MDX facilities, we believe that the percent of cash customers converting to SunPass<sup>®</sup> will also be much greater and have estimated this to be 40 percent.

After ORT implementation, it was assumed that SunPass<sup>®</sup> would increase its market share to 84 percent. Video tolling accounted for the remaining 16 percent, split evenly between pre-registered and non-registered video customers. Given the already small percentage of cash customers, the resulting percentages of video customers do not change significantly over the forecast period. WSA believes this is reasonable due to the presence of a significant “unbanked” population, which is either unable or reluctant to open SunPass<sup>®</sup> accounts.

#### **VEHICLE OPERATING COSTS AND VALUE OF TIME**

In addition to tolls, two major costs are considered when calculating the total cost of a trip. Vehicle operating costs take into account drivers’ perception of the wear and tear on a vehicle as expressed in maintenance costs, tires, and other variable costs such as oil and fuel. Value of time is the cost per minute of a specific trip as perceived by the traveler.

**Vehicle Operating Costs** - A vehicle operating cost of \$0.180 per mile for passenger cars and \$1.000 per mile for trucks in 2008 was assumed. Past studies by WSA have shown that drivers primarily perceive the fuel-cost in decisions regarding trip path, but also give some consideration to other usage-related costs, including maintenance, oil, and tires, but at a discounted level. Factors such as depreciation and insurance are not included in the operating cost estimate.

For all future years, the estimated vehicle operating costs were inflated as shown in Table 4-3. Based on an average annual increase of 2.52 percent in the South Urban Area Consumer Price Index (CPI) between 1999 and 2009, as reported by the Bureau of Labor Statistics (BLS), WSA estimated the average future inflation rate would be 2.5 percent. Given the previous fluctuations in gasoline price, it is believed that vehicle operating costs have the potential to increase faster than the inflation rate. As a result, vehicle operating costs were inflated by 3.0 percent per year.



**Table 4-3**  
**Estimated Passenger Car Vehicle Operating Costs**

| <u>Year</u> | <u>Operating<br/>Cost<br/>(cents/mile)</u> | <u>Year</u> | <u>Operating<br/>Cost<br/>(cents/mile)</u> |
|-------------|--------------------------------------------|-------------|--------------------------------------------|
| 2008        | \$ 0.18                                    | 2022        | \$ 0.27                                    |
| 2009        | 0.19                                       | 2023        | 0.28                                       |
| 2010        | 0.19                                       | 2024        | 0.29                                       |
| 2011        | 0.20                                       | 2025        | 0.30                                       |
| 2012        | 0.20                                       | 2026        | 0.31                                       |
| 2013        | 0.21                                       | 2027        | 0.32                                       |
| 2014        | 0.21                                       | 2028        | 0.33                                       |
| 2015        | 0.22                                       | 2029        | 0.33                                       |
| 2016        | 0.23                                       | 2030        | 0.34                                       |
| 2017        | 0.23                                       | 2031        | 0.36                                       |
| 2018        | 0.24                                       | 2032        | 0.37                                       |
| 2019        | 0.25                                       | 2033        | 0.38                                       |
| 2020        | 0.26                                       | 2034        | 0.39                                       |
| 2021        | 0.26                                       | 2035        | 0.40                                       |

**Value Of Time** - Motorists' perception of their value of time is a key component of the decision to use a toll facility or the alternate route. People attach different values to their time depending on the purpose of their trip.

Based on 2000 Census data, including the number of households, the median household income and the numbers of hours worked in each census tract, an average cost per minute was computed. This average cost was weighted with the amount of trips from the trip tables generated in each traffic analysis zone (TAZ) for home-based trips to work, non-work related trips from home, and business trips, including a perception factor for each trip purpose. As a result, an individual value of time for each traffic zone for the AM peak, PM peak and off peak periods were developed, representing the income structure and the subjective perception of the cost of time for each planning area in the model (44 groupings of traffic zones). Each TAZ was then assumed to have the same value of time as its associated planning area. The value of time for commercial vehicle trips was assumed to be slightly more than 2.0 times the value for passenger cars, based on past study experience by WSA.

For 2008, the value of time was estimated at \$0.195 per minute, or \$11.680 per hour. These values were inflated by 2.5 percent per year to reflect future estimated inflation based on forecasted increases of regional income by WEG. The average values of time used in this study are shown in Table 4-4 as a cost per minute and a cost per hour by year.

**Table 4-4**  
**Average Values of Time**

| Year | Value of Time |           | Year | Value of Time |           |
|------|---------------|-----------|------|---------------|-----------|
|      | Per Minute    | Per Hour  |      | Per Minute    | Per Hour  |
| 2008 | \$ 0.195      | \$ 11.680 | 2022 | \$ 0.275      | \$ 16.503 |
| 2009 | 0.200         | 11.972    | 2023 | 0.282         | 16.916    |
| 2010 | 0.205         | 12.271    | 2024 | 0.289         | 17.339    |
| 2011 | 0.210         | 12.578    | 2025 | 0.296         | 17.772    |
| 2012 | 0.215         | 12.892    | 2026 | 0.304         | 18.217    |
| 2013 | 0.220         | 13.215    | 2027 | 0.311         | 18.672    |
| 2014 | 0.226         | 13.545    | 2028 | 0.319         | 19.139    |
| 2015 | 0.231         | 13.884    | 2029 | 0.327         | 19.617    |
| 2016 | 0.237         | 14.231    | 2030 | 0.335         | 20.108    |
| 2017 | 0.243         | 14.587    | 2031 | 0.344         | 20.611    |
| 2018 | 0.249         | 14.951    | 2032 | 0.352         | 21.126    |
| 2019 | 0.255         | 15.325    | 2033 | 0.361         | 21.654    |
| 2020 | 0.262         | 15.708    | 2034 | 0.370         | 22.195    |
| 2021 | 0.268         | 16.101    | 2035 | 0.379         | 22.750    |

Note: Reflects average values per minute of all traffic zones in SERPM model. Individual values for each traffic zone were used in the actual traffic assignment process.

As a result of inflating values of time, the real value of tolls decreases over time. For example, at the assumed inflation rate of 2.5 percent per year, a \$1.00 toll in 2008 would effectively be worth \$0.84 in 2015, \$0.66 in 2025 and \$0.51 in 2035. Therefore, by inflating the value of time, the toll rate is effectively lowered through inflation and tolled facilities tend to become more attractive. Furthermore, this means that traffic growth on MDX facilities under a constant toll rate will tend to be higher than those for demographic variables forecast for the region by WEG (Chapter 3).

#### **TOLL TRAFFIC ASSIGNMENTS**

Once the networks and trip tables were finalized, traffic assignments were run separately for AM peak, PM peak and off peak periods using the above mentioned parameters of VOT and VOC.

In addition to utilizing the equilibrium methodology employed by SERPM to calculate congestion levels throughout the network, WSA employed toll diversion routines within the assignment process to estimate the market share for each MDX facility under existing and ORT implementation. In general, two route paths are built – one using an MDX toll facility (if applicable), and one using the next best alternative routing.

The total travel cost, including time cost, distance cost and tolls was calculated for each of the two competing paths. The total travel costs for the tolled and non-tolled paths were then compared and a portion of each zone-to-zone movement was assigned to each path based on the relationship of the costs of the two paths. This comparison of path costs was performed at each iteration of the equilibrium model.

## **ORT TOLL RATE ANALYSES**

WSA initially tested two pricing alternatives at various toll and surcharge rates. These included a two-tier ORT alternative that assumed SunPass<sup>®</sup> and pre-registered video payment options only, and a three-tier ORT alternative that assumed pre-registered and non-registered video options in addition to SunPass<sup>®</sup>. MDX adopted the latter alternative. Under this alternative both pre- and non-registered video tolling customers would be levied a \$0.15 video surcharge per gantry location. In addition, non-registered video customers would also receive a \$3.00 administration fee with their monthly bill. These rates were then used for all future year traffic assignments in developing the ORT traffic and revenue estimates contained in this report.

## **TOLL RATE ASSUMPTIONS**

Based on the results of the ORT video surcharge analyses and toll policy adopted by the MDX Board of Directors, toll rate assumptions for the Existing Toll Collection System and ORT scenarios were developed for use in this study. These are presented below.

### **EXISTING TOLL COLLECTION SYSTEM TOLL RATE ASSUMPTIONS**

A summary of toll rates that assume continuation of the existing SunPass<sup>®</sup>/Cash toll payment system are presented in Table 4-5. Rates shown are for passenger cars; toll rates for commercial vehicles would be proportionally higher based on vehicle size. Current rates are shown and no toll rate increases have been assumed during the forecast period.

**Table 4-5**  
**Existing System Toll Rate Assumptions**  
**Passenger Car-Based Rates**

| Expressway | Toll Plaza                          |          |           | Toll    |         |
|------------|-------------------------------------|----------|-----------|---------|---------|
|            | Location                            | Type     | Direction | Cash    | SunPass |
| SR 924     | West of NW 42 <sup>nd</sup> Avenue  | Mainline | Both      | \$ 1.25 | \$ 1.00 |
| SR 112     | West of 12 <sup>th</sup> Avenue     | Mainline | Eastbound | 1.25    | 1.00    |
| SR 836     | West of NW 17 <sup>th</sup> Avenue  | Mainline | Eastbound | 1.25    | 1.00    |
|            | 17 <sup>th</sup> Avenue             | Ramp     | T/F West  | 1.25    | 1.00    |
|            | West of NW 97 <sup>th</sup> Avenue  | Mainline | Both      | 1.00    | 0.75    |
|            | East of NW 137 <sup>th</sup> Avenue | Mainline | Both      | n.a.    | 0.25    |
| SR 874     | North of HEFT                       | Mainline | Both      | 1.25    | 1.00    |

T/F = to/from  
n.a. = not applicable

#### OPEN ROAD TOLLING TOLL RATE ASSUMPTIONS

MDX has determined that ORT will be the future on MDX facilities. However, because toll rates have not been formally adopted by MDX for SR 836 and SR 112 upon conversion to ORT, the focus of this study was the implementation of ORT on SR 924, SR 874 and SR 878 only. ORT is assumed to begin on SR 924 in July 2010 and on SR 874 and SR 878 in January 2011. Full systemwide ORT implementation is provided as a sensitivity test and discussed further in Chapter 7.

As discussed above, based on prior analyses of alternative video surcharge rates previously presented to MDX, it was determined that the video surcharge for both pre- and non-registered video customers would be \$0.15. Non-registered video customers would also receive an additional \$3.00 administrative fee included in monthly bills. Table 4-6 presents the toll rate assumptions used for the ORT analysis for passenger cars. Toll rates for commercial vehicles would be proportionally higher based on vehicle size. After the initial ORT conversion, no toll rate increases have been assumed during the forecast period.

Table 4-6  
Partial Open Road Tolling Toll Rate Assumptions  
Passenger Car-Based Rates

| Expressway | Toll Plaza                          |          |           | Toll    |         |                |                               |
|------------|-------------------------------------|----------|-----------|---------|---------|----------------|-------------------------------|
|            | Location                            | Type     | Direction | Cash    | SunPass | Video          |                               |
|            |                                     |          |           |         |         | Pre-Registered | Non-Registered <sup>(1)</sup> |
| SR 924     | West of NW 42 <sup>nd</sup> Avenue  | Mainline | Both      | n.a.    | \$ 0.50 | \$ 0.65        | \$ 0.65                       |
|            | West of W 4 <sup>th</sup> Avenue    | Mainline | Both      | n.a.    | 0.50    | 0.65           | 0.65                          |
| SR 112     | West of 12 <sup>th</sup> Avenue     | Mainline | Eastbound | \$ 1.25 | 1.00    | n.a.           | n.a.                          |
| SR 836     | West of NW 17 <sup>th</sup> Avenue  | Mainline | Eastbound | 1.25    | 1.00    | n.a.           | n.a.                          |
|            | 17 <sup>th</sup> Avenue             | Ramp     | T/F West  | 1.25    | 1.00    | n.a.           | n.a.                          |
|            | West of NW 97 <sup>th</sup> Avenue  | Mainline | Both      | 1.00    | 0.75    | n.a.           | n.a.                          |
|            | East of NW 137 <sup>th</sup> Avenue | Mainline | Both      | n.a.    | 0.25    | n.a.           | n.a.                          |
| SR 874     | North of HEFT                       | Mainline | Both      | n.a.    | 0.25    | 0.40           | 0.40                          |
|            | South of SW 88 <sup>th</sup> Street | Mainline | Both      | n.a.    | 0.25    | 0.40           | 0.40                          |
|            | South of SR 826                     | Mainline | Both      | n.a.    | 0.50    | 0.65           | 0.65                          |
| SR 878     | East of SR 874                      | Mainline | Both      | n.a.    | 0.25    | 0.40           | 0.40                          |
|            | East of SW 87 <sup>th</sup> Avenue  | Mainline | Both      | n.a.    | 0.25    | 0.40           | 0.40                          |

<sup>(1)</sup> Non-registered video customers would also be assessed a \$3.00 administrative fee with each monthly invoice.

T/F = to/from

n.a. = not applicable

## BASIC ASSUMPTIONS

Traffic and toll revenue estimates for the MDX system are predicated upon the following basic assumptions, which are considered reasonable for purposes of the base case forecast:

1. No toll changes, besides ORT implementation, are assumed in the revenue forecasts included in this report;
2. The toll collection concepts and toll schedules for the ORT scenario as shown in this report have been adopted. Both SunPass<sup>®</sup>, Pre-Registered and Non-Registered Video Tolling options will be employed, as already approved for SR 924, SR 874 and SR 878;
3. SR 924, Gratigny Parkway, is assumed to convert from its current open-barrier form of toll collection to ORT on July 1, 2010;
4. SR 874, Don Shula Expressway, is assumed to convert from its current open-barrier form of toll collection to ORT on January 1, 2011 and SR

878, Snapper Creek Expressway, is assumed to convert from a toll-free facility to ORT on January 1, 2011;

5. Since toll rates have not been formally adopted by MDX for SR 836 and SR 112 upon conversion to ORT, the continuance of the current toll collection system on SR 836 and SR 112 has been assumed;
6. The percentage of SunPass<sup>®</sup> and Video Tolling customers will be as estimated in this chapter;
7. Revenue leakage due to unreadable video transactions, or any transactions that cannot be processed and payment collected will occur. Maximum effort will be devoted to these collection efforts through the toll enforcement system, but for purposes of this forecast a zero percent (0%) leakage rate is assumed in the traffic and revenue analysis;
8. Improvements to the present highway and local road system in the travel corridor will be limited to those described in this report. No other competing facilities, or capacity expansions other than those documented, will occur during the forecast period;
9. The current economic trends in the study area will continue, and will be generally as forecasted by the Miami-Dade, Broward and Palm Beach County Metropolitan Planning Organizations as reviewed and refined by the independent economist for use in this study, as documented in Chapter 3. No major recession, local or national, will occur which will significantly alter the pattern of growth in traffic and revenue;
10. Inflation will average 2.5 percent per year over the projection period;
11. Revenue estimates provided are in “current year” dollars;
12. Value of time has been estimated to increase by 2.5 percent per year over the projection period, while vehicle operating costs have been estimated to increase by 3.0 percent;
13. Over the long term, motor fuel will remain in adequate supply throughout the forecast period. Fuel prices are assumed to gradually increase back to levels approaching \$3.00 per gallon, and remain at that level, in real terms after adjustment for inflation, throughout the forecast period;

14. The MDX System will continue to be effectively maintained, efficiently operated, properly signed, and promoted to encourage maximum usage;
15. No natural disasters will occur that could significantly alter travel patterns in and through the area; and
16. No local regional, or national emergency will arise that would abnormally restrict the use of motor vehicles.

Any significant departure from these basic assumptions could materially affect estimated traffic and toll revenue for the MDX System.

# CHAPTER 5

## EXISTING SYSTEM TRAFFIC AND REVENUE ANALYSIS

Chapter 5 provides a summary of traffic and revenue forecasts based on retention of the existing toll collection system. While MDX is scheduled to convert this system to ORT, forecasts of traffic and revenue under the existing system when compared with those of ORT can provide the Authority with useful information about gross transaction and toll revenue impacts. These comparisons as well as the ORT traffic and revenue forecasts are presented in Chapter 6.

### ESTIMATED AVERAGE DAILY TRAFFIC VOLUMES

Estimated two-way average daily traffic (ADT) volumes at each of the existing toll collection locations on SR 924, SR 112, SR 836 and SR 874 are described below. The estimates incorporate all of the analyses and assumptions previously described in Chapter 4, including the proposed regional and MDX capital improvement programs, assumed increases in SunPass<sup>®</sup> market share, and retention of existing toll rates throughout the forecast period.

#### **SR 924 - GRATIGNY PARKWAY**

At the existing mainline toll plaza, the 2009 two-way ADT volume is 30,000 vehicles. At the existing mainline toll plaza, the 2009 two-way ADT volume was just below 30,000 vehicles. This increases to an estimated ADT of 34,100 by 2015, which is comparable to the traffic levels reached during fiscal year 2005, but which, due to recessionary impacts, fell under 30,000 vehicles per day in 2009. The recession severely impacted the Miami region in general, including Broward County commuters, who are significant users of SR 924. At the existing mainline plaza, ADT is estimated to reach 50,000 vehicles by 2025 and 69,600 by 2035. Overall, the average annual percent change (AAPC) in traffic volumes between 2009 and 2035 is estimated at 3.3 percent per year. This estimated growth rate is partly attributable to capacity improvements on



SR 826 and local arterials, such as West 4<sup>th</sup> Avenue, which feed traffic to the Gratigny, and the effects of a “real” decrease in the toll rate. Because toll increases were not considered during the forecast period, the current \$1.00 SunPass<sup>®</sup> toll would be worth approximately \$0.53 in 2035 due to inflation. This has the effect of making the Gratigny a more attractive route over time.

The highest traffic volumes are along the toll-free segment between SR 826, Palmetto Expressway, and West 4<sup>th</sup> Avenue. At 2009 levels, the two-way ADT is 51,200 vehicles, increasing to an estimated 53,800 by 2015. Estimated volumes are 71,800 by 2025, a period of accelerated growth as the economy recovers from the current recession. The traffic volume along this segment is an estimated 92,400 vehicles in 2035.

#### **SR 112 - AIRPORT EXPRESSWAY**

At the existing eastbound mainline toll plaza location between NW 17<sup>th</sup> Avenue and NW 12<sup>th</sup> Avenue, the ADT is estimated to increase from 34,000 in 2009 to 40,200 in 2015. As on SR 924, traffic growth is estimated to accelerate between 2015 and 2025, with estimated ADT volumes increasing to 58,500 vehicles. By 2035, ADT volumes are estimated to reach 77,200 vehicles. Traffic volumes between 2009 and 2035 are estimated to increase by 3.2 percent per year. This growth rate may also be influenced by capacity improvements on I-95 which feeds SR 112 and the effects of the “real” toll decrease over time.

Along other segments of SR 112, two-way ADT volumes ranged between 84,600 and 88,300 vehicles in 2009. Between 2009 and 2015, traffic is estimated to grow at a rate of approximately 2.0 percent per year, with two-way ADT volumes ranging between 89,600 and 100,800 vehicles.

Between 2015 and 2025, trips to and from MIA are projected to increase at an average rate of 2.25 percent per year. Traffic growth rates on the western segments of SR 112 during those years are projected to increase as a result, with overall traffic growth on the facility of approximately 2.5 percent per year.

By 2025, two-way ADT volumes are estimated to range from 102,500 to 131,300 vehicles, and between 115,500 and 160,700 vehicles by 2035.

#### **SR 836 - EAST-WEST EXPRESSWAY**

In 2009, the traffic volume on the SR 386 Extension between NW 137<sup>th</sup> Avenue and the HEFT was 17,400 vehicles. Two-way ADT volumes are estimated to increase to 21,900 vehicles in 2015 and to 35,500 vehicles in

2025. By 2035, the traffic volume on the Extension is estimated to reach 52,600 vehicles.

At the SR 836 western mainline plaza located near NW 97<sup>th</sup> Avenue, two-way ADT volumes were 99,000 vehicles in 2009. By 2015, traffic volumes are estimated to increase to 111,300 vehicles, a growth of 2.0 percent per annum. Traffic growth at this location is slightly less than the growth at other MDX toll locations, partly due to diversions up SR 874 and SR 826 as a result of the various capacity improvements on SR 874 that are completed by 2015. Two-way ADT volumes at the SR 836 western mainline plaza are estimated to increase to 138,400 vehicles by 2025 and to 182,900 vehicles by 2035. Overall, traffic volumes are estimated to increase by 2.4 percent per annum between 2009 and 2035.

The SR 836 eastern mainline plaza, which tolls eastbound motorists only, is located west of NW 17<sup>th</sup> Avenue. The 2009 eastbound ADT volume was 53,000 vehicles. Traffic volumes are estimated to increase to 61,400 vehicles in 2015 and to 75,600 vehicles in 2025, a growth of 2.1 percent per annum. The rate of traffic growth is projected to slow between 2025 and 2035 to 1.5 percent per annum, as traffic volumes on the eastern segments approach the estimated roadway capacity. Eastbound ADT volumes at the plaza are estimated to reach 88,100 vehicles by 2035.

Overall, traffic volumes are influenced by greater roadway capacity from programmed highway improvements on SR 836. ADT volumes are also estimated to generally increase at the existing toll plazas, partly due to the devaluation of the current toll rates through inflation. However, traffic growth is estimated to slow between 2025 and 2035 as traffic volumes approach the estimated capacity of the roadway.

#### **SR 874 - DON SHULA EXPRESSWAY**

At the existing mainline toll plaza location between the HEFT and SW 104<sup>th</sup> Street / Killian Parkway, the two-way ADT is estimated to increase from 77,500 vehicles in 2009 to 95,900 vehicles in 2015, representing a growth of 3.6 percent per annum, which is primarily attributable to the capacity improvements scheduled for completion on SR 874 by 2015. Between 2015 and 2025, the two-way ADT volume is estimated to increase at a rate of 3.4 percent per annum to 133,900 vehicles. This level of traffic growth can be attributed to two factors. First, the population served by SR 874 in the Southwest Region of Miami-Dade County is expected to grow by an average rate of 2.2 percent per year between 2015 and 2025, as forecasted by the MPO. Secondly, the “real” SunPass<sup>®</sup> toll is estimated to decrease by 21.9 percent between 2015 and 2025 as a result of inflation, making the Don Shula more attractive to motorists. Year

2035 two-way ADT volumes are estimated to reach 168,700 vehicles. Of these, an estimated 20,600 additional vehicles per day come from the SR 874 Ramp Connector, which is scheduled to open in 2035 and provide access from SW 138<sup>th</sup> Street to SR 874. Overall, the growth in traffic at the mainline toll plaza is estimated at 3.0 percent per annum between 2009 and 2035.

## AVERAGE TOLL RATES BY MDX FACILITY

The average toll rates by method of payment for each MDX facility under the existing toll collection system are presented in Table 5-1. These rates are used to produce the estimates of annual gross toll revenue provided below in Tables 5-2 through 5-6. It should be noted that the average toll is expected to decrease during the forecast period, the result of assumed increases in annual SunPass<sup>®</sup> participation as MDX customers switch from cash to SunPass<sup>®</sup> methods of payment. Between FY 2011 and FY 2035, the average toll rate is estimated to decrease from \$0.960 to \$0.924.

| <p><b>Table 5-1</b><br/><b>Average Toll Rates by Fiscal Year</b><br/><b>Existing Toll System</b></p> |                   |             |          |          |          |          |
|------------------------------------------------------------------------------------------------------|-------------------|-------------|----------|----------|----------|----------|
| Expressway                                                                                           | Method of Payment | Fiscal Year |          |          |          |          |
|                                                                                                      |                   | 2011        | 2012     | 2015     | 2025     | 2035     |
| SR 924                                                                                               | Cash              | \$ 1.334    | \$ 1.337 | \$ 1.338 | \$ 1.328 | \$ 1.321 |
|                                                                                                      | SunPass           | 1.077       | 1.075    | 1.073    | 1.065    | 1.060    |
|                                                                                                      | Total             | 1.130       | 1.127    | 1.119    | 1.106    | 1.096    |
| SR 112                                                                                               | Cash              | 1.283       | 1.283    | 1.286    | 1.278    | 1.270    |
|                                                                                                      | SunPass           | 1.063       | 1.061    | 1.054    | 1.045    | 1.039    |
|                                                                                                      | Total             | 1.127       | 1.121    | 1.105    | 1.090    | 1.079    |
| SR 836                                                                                               | Cash              | 1.110       | 1.110    | 1.113    | 1.109    | 1.098    |
|                                                                                                      | SunPass           | 0.789       | 0.788    | 0.788    | 0.767    | 0.747    |
|                                                                                                      | Total             | 0.848       | 0.845    | 0.841    | 0.816    | 0.790    |
| SR 874                                                                                               | Cash              | 1.277       | 1.276    | 1.275    | 1.268    | 1.264    |
|                                                                                                      | SunPass           | 1.020       | 1.019    | 1.018    | 1.013    | 1.010    |
|                                                                                                      | Total             | 1.085       | 1.080    | 1.068    | 1.057    | 1.049    |
| Total MDX System                                                                                     | Cash              | 1.203       | 1.202    | 1.201    | 1.201    | 1.195    |
|                                                                                                      | SunPass           | 0.894       | 0.894    | 0.899    | 0.892    | 0.881    |
|                                                                                                      | Total             | 0.960       | 0.957    | 0.953    | 0.941    | 0.924    |

## **ESTIMATED ANNUAL TRANSACTIONS AND REVENUE**

Tables 5-2 through 5-6 present a summary of estimated annual transactions, revenue, and average toll by MDX facility between FY 2011 and FY 2035. While traffic assignments used to develop the estimates were run for “benchmark” years FY 2011, FY 2012, FY 2015, FY 2025 and FY 2035, estimates for all interim years have been developed through interpolation based on the average annual percent change between the appropriate analysis years. No toll increases have been assumed during the forecast period.

### **SR 924 - GRATIGNY PARKWAY**

Table 5-2 provides estimated annual transactions and revenue. Annual SunPass<sup>®</sup> transactions are estimated to increase from 8.8 million in FY 2011 to 10.3 million in FY 2015, while cash transactions are estimated to decrease from 2.3 million in FY 2011 to 2.2 million in FY 2015. Total transactions are estimated to increase from 11.1 million in FY 2011 to 12.5 million in FY 2015.

By FY 2035, the final year of the forecast period, annual SunPass<sup>®</sup> transactions are estimated to reach 22.0 million or 86 percent of total transactions, while cash transactions are estimated to reach 3.4 million. Total transactions are estimated at 25.4 million, an increase of 3.5 percent per annum between FY 2011 and FY 2035.

Annual SunPass<sup>®</sup> toll revenue is expected to increase from an estimated \$9.5 million in FY 2011 to \$11.0 million in FY 2015. Annual cash toll revenue is estimated to decrease from \$3.1 million in FY 2011 to \$2.9 million in FY 2015. Total toll revenues are estimated to increase from \$12.6 million in FY 2011 to \$13.9 million by FY 2015. In FY 2035, annual SunPass<sup>®</sup> and cash revenues are estimated to be \$23.3 million and \$4.5 million, respectively. Annual toll revenue for all methods of payment is estimated to be \$27.8 million in FY 2035, representing a growth of 3.4 percent per annum between FY 2011 and FY 2035.

### **SR 112 - AIRPORT EXPRESSWAY**

As presented in Table 5-3, estimated annual SunPass<sup>®</sup> transactions are estimated to increase from 9.3 million to 11.5 million between fiscal years 2011 and 2015. Annual cash transactions are estimated to decrease from 3.8 million to 3.2 million during the same period. Total transactions are estimated to increase from 13.1 million to 14.7 million. By FY 2035, annual SunPass<sup>®</sup> and cash transactions are estimated to reach 23.3 million and 4.9 million, respectively. SunPass<sup>®</sup> transactions are estimated to account for 82 percent of all transactions by 2035. Total FY 2035

**Table 5-2**  
**Estimated Annual Toll Transactions and Revenue**  
**Existing Toll System**  
**SR 924 - Gratigny Parkway**

| Fiscal<br>Year | Transactions (000s) |         |        | Revenue (000s) |          |           | Average<br>Toll |
|----------------|---------------------|---------|--------|----------------|----------|-----------|-----------------|
|                | Cash                | SunPass | Total  | Cash           | SunPass  | Total     |                 |
| 2011           | 2,318               | 8,800   | 11,118 | \$ 3,092       | \$ 9,474 | \$ 12,566 | \$ 1.130        |
| 2012           | 2,234               | 9,156   | 11,390 | 2,984          | 9,843    | 12,827    | 1.126           |
| 2013           | 2,220               | 9,513   | 11,732 | 2,967          | 10,218   | 13,184    | 1.124           |
| 2014           | 2,205               | 9,884   | 12,089 | 2,949          | 10,607   | 13,556    | 1.121           |
| 2015           | 2,191               | 10,269  | 12,460 | 2,932          | 11,011   | 13,943    | 1.119           |
| 2016           | 2,247               | 10,696  | 12,944 | 3,005          | 11,462   | 14,467    | 1.118           |
| 2017           | 2,305               | 11,142  | 13,447 | 3,080          | 11,932   | 15,012    | 1.116           |
| 2018           | 2,364               | 11,606  | 13,970 | 3,157          | 12,420   | 15,578    | 1.115           |
| 2019           | 2,425               | 12,089  | 14,513 | 3,236          | 12,929   | 16,165    | 1.114           |
| 2020           | 2,487               | 12,592  | 15,079 | 3,317          | 13,459   | 16,776    | 1.113           |
| 2021           | 2,551               | 13,116  | 15,667 | 3,400          | 14,010   | 17,410    | 1.111           |
| 2022           | 2,616               | 13,662  | 16,278 | 3,484          | 14,584   | 18,069    | 1.110           |
| 2023           | 2,683               | 14,231  | 16,914 | 3,571          | 15,182   | 18,753    | 1.109           |
| 2024           | 2,752               | 14,823  | 17,575 | 3,661          | 15,804   | 19,464    | 1.107           |
| 2025           | 2,823               | 15,440  | 18,263 | 3,752          | 16,451   | 20,203    | 1.106           |
| 2026           | 2,878               | 15,995  | 18,873 | 3,823          | 17,035   | 20,858    | 1.105           |
| 2027           | 2,934               | 16,571  | 19,505 | 3,895          | 17,639   | 21,534    | 1.104           |
| 2028           | 2,991               | 17,167  | 20,158 | 3,968          | 18,265   | 22,234    | 1.103           |
| 2029           | 3,050               | 17,785  | 20,834 | 4,043          | 18,914   | 22,957    | 1.102           |
| 2030           | 3,109               | 18,425  | 21,534 | 4,119          | 19,585   | 23,704    | 1.101           |
| 2031           | 3,170               | 19,087  | 22,257 | 4,197          | 20,280   | 24,477    | 1.100           |
| 2032           | 3,231               | 19,774  | 23,005 | 4,276          | 21,000   | 25,276    | 1.099           |
| 2033           | 3,294               | 20,485  | 23,780 | 4,356          | 21,745   | 26,101    | 1.098           |
| 2034           | 3,359               | 21,222  | 24,581 | 4,438          | 22,517   | 26,955    | 1.097           |
| 2035           | 3,424               | 21,986  | 25,410 | 4,522          | 23,316   | 27,838    | 1.096           |

**Table 5-3**  
**Estimated Annual Toll Transactions and Revenue**  
**Existing Toll System**  
**SR 112 - Airport Expressway**

| Fiscal<br>Year | Transactions (000s) |         |        | Revenue (000s) |          |           | Average<br>Toll |
|----------------|---------------------|---------|--------|----------------|----------|-----------|-----------------|
|                | Cash                | SunPass | Total  | Cash           | SunPass  | Total     |                 |
| 2011           | 3,800               | 9,277   | 13,077 | \$ 4,875       | \$ 9,858 | \$ 14,733 | \$ 1.127        |
| 2012           | 3,614               | 9,768   | 13,382 | 4,637          | 10,358   | 14,995    | 1.121           |
| 2013           | 3,473               | 10,302  | 13,776 | 4,459          | 10,904   | 15,363    | 1.115           |
| 2014           | 3,338               | 10,866  | 14,204 | 4,288          | 11,479   | 15,767    | 1.110           |
| 2015           | 3,208               | 11,460  | 14,668 | 4,124          | 12,084   | 16,208    | 1.105           |
| 2016           | 3,290               | 11,936  | 15,226 | 4,226          | 12,575   | 16,802    | 1.103           |
| 2017           | 3,374               | 12,433  | 15,806 | 4,331          | 13,086   | 17,418    | 1.102           |
| 2018           | 3,460               | 12,949  | 16,409 | 4,439          | 13,618   | 18,057    | 1.100           |
| 2019           | 3,548               | 13,488  | 17,035 | 4,549          | 14,172   | 18,721    | 1.099           |
| 2020           | 3,638               | 14,048  | 17,686 | 4,662          | 14,748   | 19,410    | 1.097           |
| 2021           | 3,731               | 14,632  | 18,363 | 4,778          | 15,347   | 20,126    | 1.096           |
| 2022           | 3,826               | 15,240  | 19,066 | 4,897          | 15,971   | 20,868    | 1.094           |
| 2023           | 3,923               | 15,874  | 19,797 | 5,019          | 16,620   | 21,639    | 1.093           |
| 2024           | 4,023               | 16,534  | 20,557 | 5,143          | 17,296   | 22,439    | 1.092           |
| 2025           | 4,126               | 17,221  | 21,347 | 5,271          | 17,999   | 23,270    | 1.090           |
| 2026           | 4,197               | 17,748  | 21,945 | 5,358          | 18,539   | 23,898    | 1.089           |
| 2027           | 4,269               | 18,292  | 22,561 | 5,447          | 19,096   | 24,543    | 1.088           |
| 2028           | 4,342               | 18,852  | 23,194 | 5,538          | 19,669   | 25,207    | 1.087           |
| 2029           | 4,417               | 19,429  | 23,846 | 5,629          | 20,260   | 25,889    | 1.086           |
| 2030           | 4,493               | 20,023  | 24,516 | 5,723          | 20,868   | 26,591    | 1.085           |
| 2031           | 4,570               | 20,636  | 25,206 | 5,818          | 21,494   | 27,312    | 1.084           |
| 2032           | 4,648               | 21,268  | 25,917 | 5,914          | 22,140   | 28,054    | 1.082           |
| 2033           | 4,728               | 21,919  | 26,648 | 6,012          | 22,804   | 28,816    | 1.081           |
| 2034           | 4,809               | 22,590  | 27,400 | 6,112          | 23,489   | 29,601    | 1.080           |
| 2035           | 4,892               | 23,282  | 28,174 | 6,213          | 24,194   | 30,407    | 1.079           |

transactions are estimated at 28.2 million, representing a growth rate of 3.2 percent per annum between FY 2011 and FY 2035.

Annual SunPass<sup>®</sup> toll revenue is estimated at \$9.9 million in FY 2011, while annual cash toll revenue is estimated at \$4.9 million. By FY 2015, annual SunPass<sup>®</sup> and cash toll revenues are estimated to reach \$12.1 million and \$4.1 million, respectively. Total toll revenue between FY 2011 and FY 2015 is estimated to increase from \$14.7 million to \$16.2 million. In FY 2035, annual SunPass<sup>®</sup> and cash revenues are estimated to be \$24.2 million and \$6.2 million, respectively. Annual toll revenue for all methods of payment is estimated to be \$30.4 million in FY 2035, representing a growth of 3.1 percent per annum between FY 2011 and FY 2035.

#### **SR 836 - EAST-WEST EXPRESSWAY**

Table 5-4 provides estimated annual transactions and revenue on SR 836. Between FY 2011 and FY 2015, annual SunPass<sup>®</sup> transactions are estimated to increase from 56.3 million to 61.9 million. During the same period, cash transactions are estimated to decrease from 12.6 million to 12.2 million. Total transactions are estimated to increase from 68.9 million to 74.2 million. By 2035, an estimated 107.7 million SunPass<sup>®</sup> transactions (87.8 percent) and 15.0 million cash transactions will be processed. Total year 2035 transactions are estimated at 122.7 million, representing an AAPC of 2.4 percent per annum between FY 2011 and FY 2035.

Annual SunPass<sup>®</sup> toll revenue is expected to increase from an estimated \$44.4 million in FY 2011 to \$48.8 million in FY 2015, while annual cash toll revenue is estimated to decrease from \$13.9 million to \$13.6 million. Total toll revenues are estimated to increase from \$58.4 million to \$62.4 million. By FY 2035, annual toll revenue is estimated to reach \$96.9 million, of which SunPass<sup>®</sup> and cash revenues are estimated to be \$80.5 million and \$16.5 million, respectively. This represents an average increase in total revenue of 2.1 percent per annum between FY 2011 and FY 2035.

#### **SR 874 - DON SHULA EXPRESSWAY**

Table 5-5 provides estimated annual transactions and revenue on SR 874. In FY 2011, annual SunPass<sup>®</sup> and cash transactions are estimated at 21.7 million and 7.4 million, respectively, or a total of 29.1 million. By FY 2015, total annual transactions are estimated at 35.0 million, of which 28.2 million or 81 percent, are SunPass<sup>®</sup> and 6.8 million are cash. Total transactions between FY 2011 and FY 2015 are estimated to increase from 29.1 million to 35.0 million, partly due to roadway improvements and

**Table 5-4**  
**Estimated Annual Toll Transactions and Revenue**  
**Existing Toll System**  
**SR 836 - East-West Expressway**

| Fiscal<br>Year | Transactions (000s) |         |         | Revenue (000s) |           |           | Average<br>Toll |
|----------------|---------------------|---------|---------|----------------|-----------|-----------|-----------------|
|                | Cash                | SunPass | Total   | Cash           | SunPass   | Total     |                 |
| 2011           | 12,557              | 56,320  | 68,877  | \$ 13,943      | \$ 44,432 | \$ 58,375 | \$ 0.848        |
| 2012           | 12,456              | 57,959  | 70,415  | 13,833         | 45,649    | 59,482    | 0.845           |
| 2013           | 12,382              | 59,255  | 71,637  | 13,760         | 46,674    | 60,434    | 0.844           |
| 2014           | 12,309              | 60,580  | 72,889  | 13,688         | 47,721    | 61,409    | 0.842           |
| 2015           | 12,236              | 61,935  | 74,171  | 13,616         | 48,792    | 62,408    | 0.841           |
| 2016           | 12,357              | 63,665  | 76,022  | 13,746         | 50,023    | 63,769    | 0.839           |
| 2017           | 12,479              | 65,444  | 77,923  | 13,877         | 51,286    | 65,163    | 0.836           |
| 2018           | 12,603              | 67,273  | 79,875  | 14,009         | 52,580    | 66,590    | 0.834           |
| 2019           | 12,727              | 69,152  | 81,879  | 14,143         | 53,908    | 68,051    | 0.831           |
| 2020           | 12,853              | 71,084  | 83,937  | 14,278         | 55,268    | 69,546    | 0.829           |
| 2021           | 12,980              | 73,070  | 86,050  | 14,414         | 56,663    | 71,077    | 0.826           |
| 2022           | 13,108              | 75,112  | 88,220  | 14,552         | 58,093    | 72,645    | 0.823           |
| 2023           | 13,238              | 77,210  | 90,448  | 14,690         | 59,560    | 74,250    | 0.821           |
| 2024           | 13,369              | 79,368  | 92,736  | 14,831         | 61,063    | 75,893    | 0.818           |
| 2025           | 13,501              | 81,585  | 95,086  | 14,972         | 62,604    | 77,576    | 0.816           |
| 2026           | 13,644              | 83,885  | 97,528  | 15,116         | 64,196    | 79,311    | 0.813           |
| 2027           | 13,788              | 86,249  | 100,037 | 15,260         | 65,828    | 81,089    | 0.811           |
| 2028           | 13,934              | 88,680  | 102,613 | 15,407         | 67,502    | 82,909    | 0.808           |
| 2029           | 14,081              | 91,179  | 105,260 | 15,554         | 69,218    | 84,773    | 0.805           |
| 2030           | 14,230              | 93,749  | 107,979 | 15,704         | 70,978    | 86,682    | 0.803           |
| 2031           | 14,380              | 96,392  | 110,772 | 15,854         | 72,783    | 88,637    | 0.800           |
| 2032           | 14,532              | 99,108  | 113,641 | 16,006         | 74,634    | 90,640    | 0.798           |
| 2033           | 14,686              | 101,902 | 116,588 | 16,160         | 76,532    | 92,691    | 0.795           |
| 2034           | 14,841              | 104,774 | 119,615 | 16,315         | 78,478    | 94,792    | 0.792           |
| 2035           | 14,998              | 107,727 | 122,725 | 16,471         | 80,473    | 96,944    | 0.790           |



**Table 5-5**  
**Estimated Annual Toll Transactions and Revenue**  
**Existing Toll System**  
**SR 874 - Don Shula Expressway**

| Fiscal<br>Year | Transactions (000s) |         |        | Revenue (000s) |           |           | Average<br>Toll |
|----------------|---------------------|---------|--------|----------------|-----------|-----------|-----------------|
|                | Cash                | SunPass | Total  | Cash           | SunPass   | Total     |                 |
| 2011           | 7,440               | 21,700  | 29,140 | \$ 9,500       | \$ 22,121 | \$ 31,621 | \$ 1.085        |
| 2012           | 7,196               | 23,308  | 30,504 | 9,187          | 23,751    | 32,938    | 1.080           |
| 2013           | 7,065               | 24,837  | 31,901 | 9,014          | 25,299    | 34,313    | 1.076           |
| 2014           | 6,936               | 26,466  | 33,402 | 8,845          | 26,947    | 35,792    | 1.072           |
| 2015           | 6,809               | 28,202  | 35,011 | 8,679          | 28,703    | 37,382    | 1.068           |
| 2016           | 6,950               | 29,242  | 36,192 | 8,854          | 29,748    | 38,602    | 1.067           |
| 2017           | 7,094               | 30,321  | 37,415 | 9,033          | 30,831    | 39,865    | 1.065           |
| 2018           | 7,241               | 31,439  | 38,680 | 9,216          | 31,954    | 41,170    | 1.064           |
| 2019           | 7,391               | 32,598  | 39,989 | 9,402          | 33,118    | 42,519    | 1.063           |
| 2020           | 7,544               | 33,801  | 41,345 | 9,592          | 34,324    | 43,915    | 1.062           |
| 2021           | 7,700               | 35,047  | 42,747 | 9,785          | 35,574    | 45,359    | 1.061           |
| 2022           | 7,860               | 36,340  | 44,200 | 9,983          | 36,869    | 46,852    | 1.060           |
| 2023           | 8,022               | 37,680  | 45,703 | 10,184         | 38,211    | 48,396    | 1.059           |
| 2024           | 8,188               | 39,070  | 47,258 | 10,390         | 39,603    | 49,993    | 1.058           |
| 2025           | 8,358               | 40,511  | 48,869 | 10,600         | 41,045    | 51,645    | 1.057           |
| 2026           | 8,448               | 41,557  | 50,006 | 10,711         | 42,093    | 52,804    | 1.056           |
| 2027           | 8,539               | 42,631  | 51,170 | 10,823         | 43,168    | 53,991    | 1.055           |
| 2028           | 8,632               | 43,732  | 52,364 | 10,937         | 44,270    | 55,207    | 1.054           |
| 2029           | 8,725               | 44,862  | 53,587 | 11,051         | 45,401    | 56,452    | 1.053           |
| 2030           | 8,819               | 46,021  | 54,840 | 11,167         | 46,560    | 57,727    | 1.053           |
| 2031           | 8,914               | 47,210  | 56,124 | 11,284         | 47,749    | 59,033    | 1.052           |
| 2032           | 9,010               | 48,429  | 57,439 | 11,402         | 48,969    | 60,371    | 1.051           |
| 2033           | 9,107               | 49,680  | 58,788 | 11,521         | 50,219    | 61,741    | 1.050           |
| 2034           | 9,206               | 50,964  | 60,169 | 11,642         | 51,502    | 63,144    | 1.049           |
| 2035           | 9,305               | 52,280  | 61,585 | 11,764         | 52,817    | 64,581    | 1.049           |

capacity increases. By FY 2035, annual SunPass<sup>®</sup> and cash transactions are estimated to reach 52.3 million (85 percent) and 9.3 million, respectively, or 61.6 million total.

In FY 2011, annual SunPass<sup>®</sup> toll revenue is estimated at \$22.1 million, while annual cash toll revenue is estimated at \$9.5 million. By FY 2015, annual SunPass<sup>®</sup> and cash toll revenues are estimated to reach \$28.7 million and \$8.7 million, respectively. Total toll revenue between FY 2011 and FY 2015 is estimated to increase from \$31.6 million to \$37.4 million. Annual SunPass<sup>®</sup> and cash revenues are estimated to be \$52.8 million and \$11.8 million, respectively, by 2035. Annual toll revenue for all methods of payment in 2035 is estimated to be \$64.6 million.

#### **TOTAL MDX SYSTEM**

Table 5-6 provides estimated annual transactions and revenue for all MDX facilities. Annual SunPass<sup>®</sup> transactions are estimated to increase from 96.1 million or 79 percent of total in FY 2011 to 111.9 million or 82 percent of total by FY 2015, an average annual rate of growth of 3.9 percent. Cash transactions are estimated to decrease from 26.1 million to 24.4 million during the same period. Total transactions are estimated to increase from 122.2 million to 136.3 million, an average annual growth of 2.8 percent over the four year period.

By FY 2035, annual SunPass<sup>®</sup> transactions on the MDX system are estimated to reach 205.3 million or 86 percent of total, while cash transactions are estimated to reach 32.6 million. Total transactions are estimated at 237.9 million, representing an average annual growth of 2.8 percent over the forecast period.

Annual SunPass<sup>®</sup> toll revenue is expected to increase from an estimated \$85.9 million to \$100.6 million between FY 2011 and FY 2015, while cash toll revenue is estimated to decrease from \$31.4 million to \$29.4 million. Total toll revenues are estimated to increase at an average annual rate of 2.6 percent per annum from \$117.3 million in FY 2011 to \$129.9 million in FY 2015. In FY 2035, annual SunPass<sup>®</sup> revenues are estimated to be \$180.8 million and cash revenues are estimated to be \$39.0 million. Annual toll revenue for all methods of payment is estimated at \$219.8 million, representing an average annual growth rate of 2.7 percent between FY 2011 and FY 2035.

Table 5-6 also provides the average toll over the forecast period. During the forecast period average tolls are estimated to decrease by almost \$0.04, a result of the assumed increase in SunPass<sup>®</sup> participation.

**Table 5-6**  
**Estimated Annual Toll Transactions and Revenue**  
**Existing Toll System**  
**Total MDX System**

| Fiscal<br>Year | Transactions (000s) |         |         | Revenue (000s) |           |            | Average<br>Toll |
|----------------|---------------------|---------|---------|----------------|-----------|------------|-----------------|
|                | Cash                | SunPass | Total   | Cash           | SunPass   | Total      |                 |
| 2011           | 26,115              | 96,097  | 122,212 | \$ 31,410      | \$ 85,885 | \$ 117,295 | \$ 0.960        |
| 2012           | 25,500              | 100,191 | 125,691 | 30,641         | 89,601    | 120,242    | 0.957           |
| 2013           | 25,140              | 103,907 | 129,047 | 30,201         | 93,094    | 123,295    | 0.955           |
| 2014           | 24,788              | 107,796 | 132,583 | 29,771         | 96,754    | 126,525    | 0.954           |
| 2015           | 24,444              | 111,866 | 136,310 | 29,351         | 100,590   | 129,941    | 0.953           |
| 2016           | 24,844              | 115,540 | 140,384 | 29,832         | 103,809   | 133,641    | 0.952           |
| 2017           | 25,252              | 119,339 | 144,591 | 30,322         | 107,135   | 137,457    | 0.951           |
| 2018           | 25,667              | 123,266 | 148,933 | 30,821         | 110,573   | 141,394    | 0.949           |
| 2019           | 26,090              | 127,327 | 153,417 | 31,330         | 114,126   | 145,456    | 0.948           |
| 2020           | 26,522              | 131,525 | 158,047 | 31,849         | 117,799   | 149,647    | 0.947           |
| 2021           | 26,962              | 135,866 | 162,828 | 32,377         | 121,594   | 153,971    | 0.946           |
| 2022           | 27,410              | 140,354 | 167,764 | 32,916         | 125,518   | 158,433    | 0.944           |
| 2023           | 27,867              | 144,995 | 172,862 | 33,465         | 129,573   | 163,038    | 0.943           |
| 2024           | 28,333              | 149,794 | 178,127 | 34,025         | 133,765   | 167,790    | 0.942           |
| 2025           | 28,808              | 154,757 | 183,565 | 34,595         | 138,099   | 172,694    | 0.941           |
| 2026           | 29,167              | 159,186 | 188,352 | 35,008         | 141,863   | 176,871    | 0.939           |
| 2027           | 29,530              | 163,742 | 193,273 | 35,426         | 145,732   | 181,157    | 0.937           |
| 2028           | 29,899              | 168,431 | 198,329 | 35,849         | 149,707   | 185,556    | 0.936           |
| 2029           | 30,272              | 173,255 | 203,527 | 36,278         | 153,793   | 190,071    | 0.934           |
| 2030           | 30,650              | 178,218 | 208,868 | 36,712         | 157,992   | 194,704    | 0.932           |
| 2031           | 31,034              | 183,325 | 214,359 | 37,152         | 162,307   | 199,459    | 0.930           |
| 2032           | 31,422              | 188,580 | 220,002 | 37,598         | 166,742   | 204,340    | 0.929           |
| 2033           | 31,816              | 193,987 | 225,803 | 38,049         | 171,300   | 209,350    | 0.927           |
| 2034           | 32,215              | 199,550 | 231,765 | 38,507         | 175,985   | 214,492    | 0.925           |
| 2035           | 32,619              | 205,275 | 237,894 | 38,970         | 180,800   | 219,770    | 0.924           |

# CHAPTER 6

## OPEN ROAD TOLLING TRAFFIC AND REVENUE ANALYSIS

A summary of the traffic and revenue forecasts based on the implementation of Open Road Tolling (ORT) on SR 924, SR 874 and SR 878, only, is presented in this chapter. While MDX plans to convert its entire system to ORT, including SR 112 and SR 836 by FY 2015, because toll rates have not been formally adopted by MDX for SR 112 and SR 836 upon conversion to ORT, the forecasts presented herein assume the existing toll collection system is retained on SR 112 and SR 836. The forecasts also assume that tolls will not be increased during the forecast period.

### ESTIMATED AVERAGE DAILY TRAFFIC VOLUMES

Estimated two-way average daily traffic (ADT) volumes at each of the toll collection locations on SR 112, SR 836, SR 874, SR 878 and SR 924 are described below. The estimates incorporate all of the analyses and assumptions described in Chapter 4, including the proposed regional and MDX capital improvement programs, traffic model assumptions for cash, SunPass<sup>®</sup> and video tolling market shares, and no toll rate increases throughout the forecast period.

#### SR 924 - GRATIGNY PARKWAY

At the location of the former mainline toll plaza between West 4<sup>th</sup> Avenue and NW 42<sup>nd</sup> Avenue, a \$1.00 SunPass<sup>®</sup> toll had been levied to passenger vehicles under the existing toll collection system. After partial ORT implementation on Gratiigny occurs on July 1, 2010 (FY 2011), a passenger vehicle using SunPass<sup>®</sup> will be charged \$0.50 and a passenger vehicle using video tolling will be charged \$0.65. As such, traffic volumes are expected to increase versus the existing toll system. The 2009 two-way ADT volume at this location was 30,000 vehicles. This is estimated to increase to 39,800 vehicles by 2015, representing an annual average percent change (AAPC) of 4.8 percent. The ADT volume is

estimated to increase by 3.2 percent per annum to 54,500 vehicles by 2025. In 2035, two-way ADT volumes increase to an estimated 80,900 vehicles.

As in the existing toll system, the highest traffic volumes are located along the formerly toll-free segment between SR 826, Palmetto Expressway, and West 4<sup>th</sup> Avenue. Under partial ORT, SunPass<sup>®</sup>-equipped passenger vehicles traversing this segment will be charged a \$0.50 toll. With tolls on this roadway segment, traffic volumes decrease in 2011, compared with 2009, going from 51,200 vehicles to 44,100 vehicles. By 2015, the estimated volume increases to 48,200, and to 67,900 vehicles in 2025. The ADT volume is estimated to increase to 99,400 vehicles by 2035.

#### **SR 112 - AIRPORT EXPRESSWAY**

As discussed above, estimated two-way ADT volumes on SR 112 assume retention of the existing toll collection system on SR 112 and SR 836, but ORT implementation on SR 924, SR 874 and SR 878. As such, traffic growth rates on SR 112 are similar under partial system ORT implementation as those under the existing toll collection system, as described in Chapter 5. However, estimated traffic volumes are slightly higher with partial ORT due to an expected overall systemwide increase in SunPass<sup>®</sup> users paying lower tolls resulting from the partial implementation of ORT.

At the existing eastbound mainline toll plaza location between NW 17<sup>th</sup> Avenue and NW 12<sup>th</sup> Avenue, eastbound ADT is estimated to increase from 34,000 in 2009 to 40,900 in 2015. Accelerated traffic growth between 2015 and 2025 is expected to increase the ADT volume to 59,100 vehicles. By 2035, the ADT volume is estimated to be 83,500 vehicles per day. Traffic volumes at the SR 112 eastbound mainline plaza between 2009 and 2035 are estimated to increase by 3.5 percent per year, similar to the growth rate estimated under the existing toll system.

#### **SR 836 - EAST-WEST EXPRESSWAY**

Estimated two-way ADT volumes on SR 836 are provided below. Traffic growth rates on SR 836 are generally similar under partial ORT implementation to those under the existing toll collection system with slightly higher traffic volumes under ORT as a result of the assumed systemwide increase in SunPass<sup>®</sup> users.

In 2009, the traffic volume on the SR 386 Extension between NW 137<sup>th</sup> Avenue and the HEFT was 17,400 vehicles. Two-way ADT volumes are estimated to increase to 24,900 vehicles in 2015 and to 38,400 vehicles in 2025. By 2035, the traffic volume is estimated to be 62,400 vehicles,

representing a growth in traffic of 5.0 percent per annum between 2009 and 2035. Traffic growth rates on the SR 836 Extension are slightly higher under partial ORT than under the existing toll system because the Extension is a SunPass<sup>®</sup>-only facility. Since more SunPass<sup>®</sup> users are assumed systemwide following the implementation of ORT, the SR 836 Extension is expected to experience higher growth.

At the SR 836 western mainline plaza located near NW 97<sup>th</sup> Avenue, the two-way ADT volume was 99,000 vehicles in 2009. By 2015, the traffic volume is estimated to increase to 109,500 vehicles under partial ORT, a growth rate of 1.7 percent per annum. Traffic volumes at this location are less under ORT than under the existing toll system as a result of diversion related to ORT implementation on SR 874. Instead of using the HEFT or SW 137<sup>th</sup> Avenue to access SR 836, motorists use the SR 874 and SR 826 routing to benefit from the time savings associated with ORT. The two-way ADT volume at the SR 836 western mainline plaza is estimated to increase to 133,700 vehicles by 2025 and 199,100 vehicles by 2035. Overall, traffic volumes at this location are estimated to increase by 2.7 percent per annum between 2009 and 2035.

At the SR 836 eastern mainline plaza, the eastbound ADT volume in 2009 was 53,000 vehicles. The traffic volume is estimated to increase to 61,800 vehicles in 2015 and to 76,600 vehicles in 2025. Eastbound ADT is estimated to reach 98,900 vehicles by 2035, representing an average annual increase of 2.4 percent between 2009 and 2035.

#### **SR 874 - DON SHULA EXPRESSWAY AND SR 878 - SNAPPER CREEK EXPRESSWAY**

Estimated two-way ADT volumes for SR 874 and SR 878 are presented below. Significant changes in traffic volumes are estimated for these roadways as a result of ORT implementation. ORT is assumed to commence on both Expressways on January 1, 2011, the second half of FY 2011. From July 1, 2010 to December 31, 2010, the existing toll collection system has been assumed on the Don Shula Expressway, while the Snapper Creek Expressway is assumed to remain toll-free. Therefore, the FY 2011 estimates provided are the average daily traffic volumes for a fiscal year where the existing toll system is in place during the first half of the fiscal year and ORT is in place during the second half. In FY 2012 and subsequent years, ORT is assumed for the entire fiscal year.

Tolls at the former SR 874 mainline plaza between the HEFT and SW 104<sup>th</sup> Street / Killian Parkway, were \$1.00 for SunPass<sup>®</sup> and \$1.25 for cash customers in each direction. Under ORT, the current toll plaza will be removed and replaced by an overhead gantry where a toll of \$0.25 for SunPass<sup>®</sup> users and \$0.40 for video users will be levied. The SR 874 toll

gantry location north of SW 104<sup>th</sup> Street will have the same toll structure, while the toll gantry on SR 874 south of SR 826 will be \$0.50 for SunPass<sup>®</sup> customers and \$0.65 for video customers.

The toll changes are forecast to have a notable impact on average daily traffic. As ORT is implemented on SR 874 and SR 878 during the last half of FY 2011 and the first half of FY 2012, volumes at the current toll plaza location are estimated to increase. This is due to the effective lowering of the toll from \$1.00 to \$0.25. Two-way ADT volumes at the location of the former mainline plaza are estimated to increase from 77,500 vehicles in 2009 to 88,800 vehicles in 2011 and to 99,800 vehicles in 2012, the first full fiscal year of ORT implementation on SR 874. By 2015, two-way ADT volumes are estimated to reach 111,200 vehicles, representing a growth rate of 6.2 percent per annum between 2009 and 2015. Between 2015 and 2025, the two-way ADT volume is estimated to increase to 160,100 vehicles. By 2035, the two-way ADT volume is estimated to reach 195,700 vehicles, a growth rate of 2.0 percent per annum between 2025 and 2035. Of these, an estimated 22,100 vehicles per day are estimated to come from the SR 874 Ramp Connector, which is scheduled to open in 2035 and provide access from SW 138<sup>th</sup> Street to SR 874. Overall, traffic growth at the location of the former SR 874 mainline toll plaza is estimated at 3.9 percent per annum between 2009 and 2035.

Because tolls will be introduced on formerly toll-free mainline sections of SR 874 and SR 878 under the ORT system, FY 2012 ADT volumes at these locations are estimated to be lower than FY 2009 ADTs as motorists temporarily seek toll-free alternates similar to what occurs on many toll facilities when toll rates are increased. It should be noted that FY 2012 is assumed to be the first full year of ORT implementation on SR 874 and SR 878. The largest decrease is estimated to occur between SW 104<sup>th</sup> Street / Killian Parkway and SW 88<sup>th</sup> Street / Kendall Drive, where a new \$0.25 toll is levied to SunPass<sup>®</sup> users and a \$0.40 toll is levied to video users. The two-way ADT volume is estimated to decrease from 122,600 vehicles in 2009 to 112,300 vehicles in 2012. Here, traffic volumes in 2012 are 11.4 percent lower under ORT than under the existing system. After 2012, traffic volumes are expected to quickly recover and exceed 2009 levels, with an estimated two-way ADT volume of 126,900 in 2015. After 2015, traffic growth at this location is estimated to generally follow the trends observed under the existing toll system. Two-way ADT is estimated to reach 169,500 vehicles in 2025 and 194,300 vehicles in 2035.

Between SR 878 and SR 826, a new ORT toll of \$0.50 for SunPass<sup>®</sup> users and \$0.65 for video customers is programmed. At this location, the FY 2012 two-way ADT on SR 874 is estimated at 82,500 vehicles, or 5,500

vehicles lower than the 88,000 vehicles in FY 2009. The higher toll impact at this location, as compared to that between Killian Parkway and Kendall Drive, is due in part to the higher toll rate at this location. As a result of the widening of SR 874 north of SW 88<sup>th</sup> Street / Kendall Drive to six lanes and improvements to the SR 874 / SR 826 interchange, traffic volumes south of SR 826 are expected to quickly recover from the toll related impact of ORT implementation. Two-way traffic volumes are estimated at 107,800 vehicles in 2015, 142,800 vehicles in 2025 and 152,400 vehicles in 2035.

On SR 878, the Snapper Creek Expressway, traffic volumes are also estimated to decrease under ORT. Between 2009 and 2015, two-way ADT volumes on SR 878 are estimated to decrease between 13.2 and 6.7 percent per annum. For example, between SW 87<sup>th</sup> Avenue and SW 72<sup>nd</sup> Avenue, traffic volumes are estimated to decrease from 45,300 vehicles in 2009 to 31,000 vehicles in 2015. In addition to ORT impacts, this decrease in traffic volume is related to the highway improvements on SR 874, which have the effect of diverting traffic from SR 878 to SR 874. With the exception of the segment west of SW 87<sup>th</sup> Avenue, traffic volumes on SR 878 are not estimated to recover from the traffic impacts of ORT implementation and highway improvements on SR 874. Between SW 87<sup>th</sup> Avenue and SW 72<sup>nd</sup> Avenue, traffic volumes are estimated to increase to 30,500 vehicles in 2025 and 41,200 vehicles in 2035.

## **AVERAGE TOLL RATES BY MDX FACILITY**

The average toll rates by method of payment for each MDX facility under the partial ORT toll collection system are presented in Table 6-1. These rates are used to produce the estimates of annual gross toll revenue provided below in Tables 6-2 through 6-6. It should be noted that the average toll is expected to decrease during the forecast period, the result of assumed increases in annual SunPass<sup>®</sup> participation as MDX customers switch from cash or video tolling to the SunPass<sup>®</sup> method of payment. Between FY 2012, the first full year of partial ORT implementation, and FY 2035, the systemwide average toll rate is estimated to decrease from \$0.554 to \$0.534.

## **ESTIMATED ANNUAL TRANSACTIONS AND REVENUE**

Tables 6-2 through 6-7 provide a summary of estimated annual transactions and revenue for the MDX system assuming ORT on SR 924, SR 874 and SR 878. For each year, estimated annual transactions and



**Table 6-1**  
**Average Toll Rates by Fiscal Year**  
**Partial Open Road Tolling System**

| Expressway       | Method of Payment | Fiscal Year         |          |          |          |          |
|------------------|-------------------|---------------------|----------|----------|----------|----------|
|                  |                   | 2011 <sup>(1)</sup> | 2012     | 2015     | 2025     | 2035     |
| SR 924           | SunPass           | \$ 0.537            | \$ 0.536 | \$ 0.535 | \$ 0.532 | \$ 0.527 |
|                  | Video             | 0.693               | 0.694    | 0.696    | 0.691    | 0.682    |
|                  | Total             | 0.563               | 0.561    | 0.558    | 0.552    | 0.544    |
| SR 112           | Cash              | 1.282               | 1.283    | 1.285    | 1.277    | 1.267    |
|                  | SunPass           | 1.073               | 1.070    | 1.064    | 1.055    | 1.044    |
|                  | Total             | 1.132               | 1.125    | 1.110    | 1.096    | 1.081    |
| SR 836           | Cash              | 1.112               | 1.113    | 1.114    | 1.112    | 1.099    |
|                  | SunPass           | 0.789               | 0.788    | 0.788    | 0.770    | 0.747    |
|                  | Total             | 0.846               | 0.843    | 0.839    | 0.816    | 0.788    |
| SR 874           | SunPass           | 0.324               | 0.325    | 0.333    | 0.330    | 0.323    |
|                  | Video             | 0.481               | 0.483    | 0.490    | 0.485    | 0.477    |
|                  | Total             | 0.355               | 0.355    | 0.358    | 0.351    | 0.341    |
| SR 878           | SunPass           | 0.254               | 0.254    | 0.253    | 0.253    | 0.252    |
|                  | Video             | 0.405               | 0.406    | 0.406    | 0.405    | 0.404    |
|                  | Total             | 0.282               | 0.281    | 0.275    | 0.272    | 0.269    |
| Total MDX System | Cash              | 1.152               | 1.152    | 1.151    | 1.151    | 1.140    |
|                  | SunPass           | 0.522               | 0.516    | 0.517    | 0.507    | 0.506    |
|                  | Video             | 0.507               | 0.505    | 0.517    | 0.512    | 0.507    |
|                  | Total             | 0.563               | 0.554    | 0.552    | 0.538    | 0.534    |

EB - Eastbound

<sup>(1)</sup> Toll rates provided are for Jan. 1, 2011 through June 30, 2011, after implementation of Open Road Tolling on SR 924, SR 874 and SR 878.

revenue for cash, SunPass<sup>®</sup> and video tolling are provided. Average toll per transaction by year is also provided for each facility and for the entire MDX system. While traffic assignments used to develop the estimates were run for “benchmark” years FY 2011, FY 2012, FY 2015, FY 2025 and FY 2035, estimates for all interim years have been developed through interpolation based on the average annual percent change between the appropriate analysis years. No toll increases have been assumed during the forecast period.

We have also estimated an administrative fee revenue which is collected from a \$3.00 charge added to the monthly invoice of each non-registered toll customer. This fee is estimated by taking the annual non-registered video transactions on the ORT Expressways and violation transactions on SR 112 and SR 836 divided by 12, to estimate monthly transactions. This number is divided by 10, the estimated number of trips per month made by non-registered video customers. The result of this calculation is the number of invoices per month to receive a \$3.00 administration fee. This number multiplied by \$3.00 and by 12 months provides the annual fee estimate.

#### **SR 924 - GRATIGNY PARKWAY**

Table 6-2 provides estimated annual transactions and revenue under ORT for SR 924. Annual SunPass<sup>®</sup> transactions are estimated to increase from 24.1 million after the implementation of ORT in FY 2011 to 27.5 million in FY 2015. Video transactions are estimated to decrease from 5.0 million in FY 2011, the first year of video tolling under ORT, to 4.6 million in FY 2015. Total transactions are estimated to increase from 29.0 million in FY 2011 to 32.1 million in FY 2015.

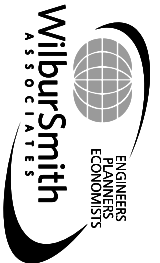
By FY 2035, the final year of the forecast period, annual SunPass<sup>®</sup> transactions are estimated to reach 58.6 million or 89 percent of total transactions, while video transactions are estimated to reach 7.2 million. Total transactions are estimated at 65.8 million in FY 2035.

Annual SunPass<sup>®</sup> toll revenue is expected to increase from an estimated \$12.9 million in FY 2011 to \$14.7 million in FY 2015. Annual revenue collected from video tolls is estimated to decrease from \$3.4 million in FY 2011 to \$3.2 million in FY 2015. Total revenues are estimated to increase from \$17.0 million in FY 2011 to \$18.5 million in 2015. By 2035, annual SunPass<sup>®</sup> and video revenues are estimated to be \$30.9 million and \$4.9 million, respectively.

**Table 6-2**  
**Estimated Annual Toll Transactions and Revenue**  
**Partial Open Road Tolling**  
**SR 924 - Gratigny Parkway**

| Fiscal<br>Year | Transactions (000s) |       |        | Revenue (000s) |          |            |           | Average<br>Toll <sup>(1)</sup> |
|----------------|---------------------|-------|--------|----------------|----------|------------|-----------|--------------------------------|
|                | SunPass             | Video | Total  | SunPass        | Video    | Admin. Fee | Total     |                                |
| 2011           | 24,085              | 4,952 | 29,037 | \$ 12,929      | \$ 3,430 | \$ 619     | \$ 16,978 | \$ 0.563                       |
| 2012           | 24,816              | 4,730 | 29,546 | 13,307         | 3,284    | 595        | 17,186    | 0.562                          |
| 2013           | 25,685              | 4,686 | 30,371 | 13,763         | 3,255    | 593        | 17,611    | 0.560                          |
| 2014           | 26,584              | 4,643 | 31,226 | 14,234         | 3,227    | 590        | 18,051    | 0.559                          |
| 2015           | 27,514              | 4,600 | 32,114 | 14,721         | 3,199    | 588        | 18,508    | 0.558                          |
| 2016           | 28,497              | 4,692 | 33,189 | 15,239         | 3,261    | 603        | 19,103    | 0.557                          |
| 2017           | 29,515              | 4,786 | 34,300 | 15,776         | 3,324    | 618        | 19,718    | 0.557                          |
| 2018           | 30,569              | 4,881 | 35,450 | 16,331         | 3,388    | 634        | 20,353    | 0.556                          |
| 2019           | 31,661              | 4,979 | 36,640 | 16,906         | 3,454    | 649        | 21,009    | 0.556                          |
| 2020           | 32,792              | 5,078 | 37,870 | 17,501         | 3,520    | 666        | 21,688    | 0.555                          |
| 2021           | 33,964              | 5,180 | 39,143 | 18,118         | 3,588    | 683        | 22,389    | 0.555                          |
| 2022           | 35,177              | 5,283 | 40,460 | 18,755         | 3,658    | 700        | 23,113    | 0.554                          |
| 2023           | 36,434              | 5,389 | 41,822 | 19,416         | 3,728    | 717        | 23,862    | 0.553                          |
| 2024           | 37,735              | 5,496 | 43,231 | 20,099         | 3,801    | 735        | 24,635    | 0.553                          |
| 2025           | 39,083              | 5,606 | 44,689 | 20,807         | 3,874    | 754        | 25,435    | 0.552                          |
| 2026           | 40,696              | 5,751 | 46,447 | 21,643         | 3,970    | 776        | 26,389    | 0.551                          |
| 2027           | 42,375              | 5,900 | 48,275 | 22,513         | 4,068    | 799        | 27,380    | 0.551                          |
| 2028           | 44,123              | 6,053 | 50,177 | 23,417         | 4,168    | 823        | 28,409    | 0.550                          |
| 2029           | 45,944              | 6,210 | 52,154 | 24,358         | 4,271    | 848        | 29,477    | 0.549                          |
| 2030           | 47,840              | 6,371 | 54,211 | 25,337         | 4,376    | 873        | 30,586    | 0.548                          |
| 2031           | 49,813              | 6,536 | 56,350 | 26,355         | 4,484    | 899        | 31,738    | 0.547                          |
| 2032           | 51,869              | 6,706 | 58,575 | 27,415         | 4,595    | 925        | 32,935    | 0.546                          |
| 2033           | 54,009              | 6,880 | 60,889 | 28,516         | 4,709    | 953        | 34,177    | 0.546                          |
| 2034           | 56,238              | 7,058 | 63,296 | 29,662         | 4,825    | 981        | 35,468    | 0.545                          |
| 2035           | 58,558              | 7,241 | 65,799 | 30,854         | 4,944    | 1,010      | 36,808    | 0.544                          |

<sup>(1)</sup> Average toll calculation does not include the administrative fee.



Administrative fee revenue collected from non-registered video users is estimated to range between \$0.6 and \$1.0 million during the forecast period. Total annual revenue collected from tolls, surcharges and fees is estimated to be \$36.8 million in FY 2035.

#### **SR 112 - AIRPORT EXPRESSWAY**

Table 6-3 provides estimated annual transactions and revenue for SR 112, the Airport Expressway. Annual SunPass<sup>®</sup> transactions on SR 112 are estimated to increase from 9.5 million in FY 2011 to 11.8 million in FY 2015, and to 25.4 million in FY 2035. Cash transactions, which are still available on SR 112 under this scenario, are estimated to decrease from 3.8 million in FY 2011 to 3.1 million in FY 2015, and then increase to 5.1 million in FY 2035. Total annual transactions are estimated to increase from 13.3 million in FY 2011 to 14.9 million in FY 2015, and then to 30.5 million in FY 2035.

Annual SunPass<sup>®</sup> toll revenue is expected to increase from an estimated \$10.2 million in FY 2011 to \$12.6 million in FY 2015, while annual cash revenue is estimated to decrease from \$4.9 million in FY 2011 to \$4.0 million in FY 2015. By 2035, annual SunPass<sup>®</sup> and cash revenues are estimated to be \$26.5 million and \$6.5 million, respectively. Total annual revenues are estimated to increase from \$15.2 million in FY 2011 to \$16.7 million in FY 2015, and then to \$33.2 million in FY 2035.

#### **SR 836 - EAST-WEST EXPRESSWAY**

Table 6-4 provides estimated annual transactions and revenue for SR 836, the East-West Expressway. Annual SunPass<sup>®</sup> transactions on SR 836 are estimated to increase from 57.4 million in FY 2011 to 63.2 million in FY 2015, to 120.4 million in FY 2035. Cash transactions, which are still available on SR 836 under this scenario, are estimated to decrease from 12.3 million in FY 2011 to 11.7 million in FY 2015, and then increase to 15.9 million in FY 2035. Total annual transactions are estimated to increase from 69.7 million in FY 2011 to 74.9 million in FY 2015, and then to 136.4 million in FY 2035.

Annual SunPass<sup>®</sup> toll revenue on SR 836 is expected to increase from an estimated \$45.3 million in FY 2011 to \$49.8 million in FY 2015, while annual cash revenue is estimated to decrease from \$13.7 million in FY 2011 to \$13.1 million in FY 2015. By 2035, annual SunPass<sup>®</sup> and cash revenues are estimated to be \$90.0 million and \$17.5 million, respectively.

Total annual revenues are estimated to increase from \$59.5 million in FY 2011 to \$63.4 million in FY 2015, and then to \$108.6 million in FY 2035.

**Table 6-3**  
**Estimated Annual Toll Transactions and Revenue**  
**Partial Open Road Tolling**  
**SR 112 - Airport Expressway**

| Fiscal<br>Year | Transactions (000s) |         |        | Revenue (000s) |                        |            |           | Average<br>Toll <sup>(2)</sup> |
|----------------|---------------------|---------|--------|----------------|------------------------|------------|-----------|--------------------------------|
|                | Cash                | SunPass | Total  | Cash           | SunPass <sup>(1)</sup> | Admin. Fee | Total     |                                |
| 2011           | 3,788               | 9,508   | 13,296 | \$ 4,860       | \$ 10,198              | \$ 101     | \$ 15,159 | \$ 1.133                       |
| 2012           | 3,515               | 10,047  | 13,562 | 4,510          | 10,752                 | 107        | 15,369    | 1.125                          |
| 2013           | 3,383               | 10,600  | 13,983 | 4,344          | 11,323                 | 113        | 15,780    | 1.120                          |
| 2014           | 3,257               | 11,183  | 14,440 | 4,185          | 11,923                 | 119        | 16,227    | 1.115                          |
| 2015           | 3,135               | 11,799  | 14,934 | 4,031          | 12,556                 | 126        | 16,713    | 1.111                          |
| 2016           | 3,212               | 12,278  | 15,490 | 4,128          | 13,054                 | 131        | 17,312    | 1.109                          |
| 2017           | 3,292               | 12,776  | 16,067 | 4,227          | 13,571                 | 136        | 17,934    | 1.108                          |
| 2018           | 3,373               | 13,294  | 16,667 | 4,328          | 14,109                 | 142        | 18,579    | 1.106                          |
| 2019           | 3,456               | 13,833  | 17,289 | 4,432          | 14,668                 | 148        | 19,247    | 1.105                          |
| 2020           | 3,542               | 14,394  | 17,936 | 4,539          | 15,249                 | 153        | 19,941    | 1.103                          |
| 2021           | 3,629               | 14,978  | 18,607 | 4,647          | 15,853                 | 160        | 20,660    | 1.102                          |
| 2022           | 3,719               | 15,585  | 19,304 | 4,759          | 16,481                 | 166        | 21,406    | 1.100                          |
| 2023           | 3,811               | 16,218  | 20,028 | 4,873          | 17,134                 | 173        | 22,180    | 1.099                          |
| 2024           | 3,905               | 16,875  | 20,780 | 4,990          | 17,813                 | 180        | 22,983    | 1.097                          |
| 2025           | 4,001               | 17,560  | 21,561 | 5,110          | 18,519                 | 187        | 23,816    | 1.096                          |
| 2026           | 4,098               | 18,220  | 22,319 | 5,231          | 19,196                 | 194        | 24,621    | 1.094                          |
| 2027           | 4,198               | 18,905  | 23,104 | 5,354          | 19,898                 | 201        | 25,453    | 1.093                          |
| 2028           | 4,301               | 19,616  | 23,917 | 5,480          | 20,625                 | 209        | 26,314    | 1.092                          |
| 2029           | 4,405               | 20,354  | 24,759 | 5,610          | 21,379                 | 217        | 27,205    | 1.090                          |
| 2030           | 4,513               | 21,119  | 25,632 | 5,742          | 22,160                 | 225        | 28,128    | 1.089                          |
| 2031           | 4,623               | 21,913  | 26,536 | 5,877          | 22,971                 | 234        | 29,082    | 1.087                          |
| 2032           | 4,735               | 22,737  | 27,472 | 6,016          | 23,810                 | 242        | 30,069    | 1.086                          |
| 2033           | 4,851               | 23,592  | 28,442 | 6,158          | 24,681                 | 252        | 31,090    | 1.084                          |
| 2034           | 4,969               | 24,479  | 29,448 | 6,303          | 25,583                 | 261        | 32,147    | 1.083                          |
| 2035           | 5,090               | 25,399  | 30,489 | 6,452          | 26,518                 | 271        | 33,241    | 1.081                          |

<sup>(1)</sup> Includes revenue collected from SunPass violators on SR 112, Airport Expressway.  
Violators are charged the cash rate, which is included in the SunPass revenue.  
A \$3.00 per month administrative fee is also charged and is included in the  
administrative fee revenue provided.

<sup>(2)</sup> Average toll calculation does not include the administrative fee.

**Table 6-4**  
**Estimated Annual Toll Transactions and Revenue**  
**Partial Open Road Tolling**  
**SR 836 - East-West Expressway**

| Fiscal<br>Year | Transactions (000s) |         |         | Revenue (000s) |                        |            |           | Average<br>Toll <sup>(2)</sup> |
|----------------|---------------------|---------|---------|----------------|------------------------|------------|-----------|--------------------------------|
|                | Cash                | SunPass | Total   | Cash           | SunPass <sup>(1)</sup> | Admin. Fee | Total     |                                |
| 2011           | 12,305              | 57,401  | 69,706  | \$ 13,678      | \$ 45,313              | \$ 504     | \$ 59,495 | \$ 0.846                       |
| 2012           | 11,826              | 58,696  | 70,522  | 13,159         | 46,262                 | 515        | 59,936    | 0.843                          |
| 2013           | 11,795              | 60,160  | 71,955  | 13,130         | 47,413                 | 528        | 61,071    | 0.841                          |
| 2014           | 11,763              | 61,662  | 73,425  | 13,102         | 48,592                 | 541        | 62,235    | 0.840                          |
| 2015           | 11,732              | 63,200  | 74,932  | 13,073         | 49,801                 | 554        | 63,428    | 0.839                          |
| 2016           | 11,840              | 64,875  | 76,715  | 13,190         | 51,002                 | 569        | 64,761    | 0.837                          |
| 2017           | 11,948              | 66,595  | 78,543  | 13,309         | 52,233                 | 584        | 66,125    | 0.834                          |
| 2018           | 12,058              | 68,360  | 80,418  | 13,428         | 53,493                 | 599        | 67,520    | 0.832                          |
| 2019           | 12,169              | 70,172  | 82,341  | 13,549         | 54,783                 | 615        | 68,947    | 0.830                          |
| 2020           | 12,281              | 72,032  | 84,313  | 13,671         | 56,105                 | 632        | 70,407    | 0.828                          |
| 2021           | 12,393              | 73,941  | 86,335  | 13,794         | 57,458                 | 648        | 71,900    | 0.825                          |
| 2022           | 12,507              | 75,901  | 88,408  | 13,918         | 58,844                 | 666        | 73,427    | 0.823                          |
| 2023           | 12,622              | 77,913  | 90,535  | 14,043         | 60,263                 | 683        | 74,989    | 0.821                          |
| 2024           | 12,738              | 79,978  | 92,716  | 14,169         | 61,717                 | 701        | 76,587    | 0.818                          |
| 2025           | 12,855              | 82,098  | 94,953  | 14,296         | 63,206                 | 720        | 78,222    | 0.816                          |
| 2026           | 13,134              | 85,306  | 98,440  | 14,589         | 65,479                 | 748        | 80,816    | 0.813                          |
| 2027           | 13,419              | 88,639  | 102,058 | 14,887         | 67,834                 | 777        | 83,499    | 0.811                          |
| 2028           | 13,710              | 92,102  | 105,812 | 15,192         | 70,274                 | 808        | 86,274    | 0.808                          |
| 2029           | 14,008              | 95,700  | 109,708 | 15,503         | 72,802                 | 840        | 89,144    | 0.805                          |
| 2030           | 14,311              | 99,439  | 113,751 | 15,820         | 75,420                 | 872        | 92,112    | 0.802                          |
| 2031           | 14,622              | 103,325 | 117,947 | 16,144         | 78,132                 | 907        | 95,182    | 0.799                          |
| 2032           | 14,939              | 107,362 | 122,301 | 16,474         | 80,943                 | 942        | 98,358    | 0.797                          |
| 2033           | 15,263              | 111,556 | 126,820 | 16,811         | 83,854                 | 979        | 101,644   | 0.794                          |
| 2034           | 15,595              | 115,915 | 131,510 | 17,155         | 86,870                 | 1,017      | 105,042   | 0.791                          |
| 2035           | 15,933              | 120,444 | 136,377 | 17,506         | 89,994                 | 1,057      | 108,557   | 0.788                          |

<sup>(1)</sup> Includes revenue collected from SunPass violators on SR 836, East-West Expressway. Violators are charged the cash rate, which is included in the SunPass revenue. A \$3.00 per month administrative fee is also charged and is included in the administrative fee revenue provided.

<sup>(2)</sup> Average toll calculation does not include the administrative fee.

#### **SR 874 - DON SHULA AND SR 878 - SNAPPER CREEK EXPRESSWAYS**

Table 6-5 provides estimated annual transactions and revenue for the combined facilities of SR 874, the Don Shula Expressway, and SR 878, the Snapper Creek Expressway. ORT is assumed to be implemented on SR 874 and SR 878 during the second half of FY 2011, beginning January 1, 2011. Thus, for FY 2011, both cash and video transactions occur. In FY 2011, annual SunPass<sup>®</sup> transactions are estimated to be 61.2 million, which includes SunPass<sup>®</sup> transactions both before and after the implementation of ORT. Annual cash transactions are estimated to be 3.8 million, while video transactions, which will replace cash on January 1, 2011, are estimated at 12.3 million. The difference in annual transactions between cash and video transactions is due to the greater number of toll locations on SR 874 and SR 878 under ORT.

In FY 2012, the first full fiscal year after ORT implementation on SR 874 and SR 878, annual SunPass<sup>®</sup> transactions are estimated to be 108.2 million while annual video transactions are estimated to be 24.8 million. Total annual transactions in FY 2012 are estimated to be 133.0 million. By 2035, annual SunPass<sup>®</sup> and video transactions are estimated to increase to 224.7 million and 30.8 million, respectively. Total transactions are estimated at 255.5 million in FY 2035.

During FY 2011, annual SunPass<sup>®</sup> revenue is estimated to total \$26.5 million. Annual cash revenue is estimated to be \$4.8 million, while revenues collected from video tolls and surcharges are estimated at \$5.8 million. Administrative fee revenue collected from non-registered video customers is estimated at \$1.5 million in FY 2011, producing an estimated total revenue of \$38.5 million for the fiscal year. After ORT implementation, annual SunPass<sup>®</sup> toll revenue is expected to increase from an estimated \$33.7 million in FY 2012 to \$69.9 million in FY 2035. Annual revenue collected from video tolls and surcharges is estimated to increase from \$11.6 million in FY 2012 to \$14.3 million in FY 2035. Administrative fee revenue is estimated to increase from \$3.0 million in FY 2012 to \$4.2 million in FY 2035. Total annual revenue collected from tolls, surcharges and fees is estimated to be \$88.4 million in FY 2035.

#### **TOTAL MDX SYSTEM**

As shown in Table 6-6, annual partial ORT scenario transactions are estimated to increase from 246.6 million in FY 2012, the first full year of ORT implementation, to 267.9 million by 2015 or by 2.8 percent per annum. By fiscal year 2035, the final year of the forecast period, annual transactions are estimated to reach 488.1 million.

**Table 6-5**  
**Estimated Annual Toll Transactions and Revenue**  
**Partial Open Road Tolling**  
**SR 874 - Don Shula Expressway and SR 878 - Snapper Creek Expressway**

| Fiscal<br>Year | Transactions (000s) |         |        |         | Revenue (000s) |           |          |            |           | Average<br>Toll <sup>(1)</sup> |
|----------------|---------------------|---------|--------|---------|----------------|-----------|----------|------------|-----------|--------------------------------|
|                | Cash                | SunPass | Video  | Total   | Cash           | SunPass   | Video    | Admin. Fee | Total     |                                |
| 2011           | 3,760               | 61,196  | 12,273 | 77,229  | \$ 4,802       | \$ 26,450 | \$ 5,760 | \$ 1,475   | \$ 38,487 | \$ 0.479                       |
| 2012           | -                   | 108,170 | 24,828 | 132,998 | -              | 33,699    | 11,627   | 2,984      | 48,310    | 0.341                          |
| 2013           | -                   | 112,991 | 24,058 | 137,049 | -              | 35,597    | 11,359   | 2,923      | 49,879    | 0.343                          |
| 2014           | -                   | 118,027 | 23,312 | 141,339 | -              | 37,602    | 11,097   | 2,864      | 51,563    | 0.345                          |
| 2015           | -                   | 123,288 | 22,589 | 145,877 | -              | 39,720    | 10,841   | 2,806      | 53,367    | 0.347                          |
| 2016           | -                   | 127,434 | 23,013 | 150,447 | -              | 41,019    | 11,034   | 2,876      | 54,928    | 0.346                          |
| 2017           | -                   | 131,719 | 23,446 | 155,164 | -              | 42,360    | 11,230   | 2,947      | 56,537    | 0.345                          |
| 2018           | -                   | 136,148 | 23,886 | 160,034 | -              | 43,745    | 11,430   | 3,020      | 58,196    | 0.345                          |
| 2019           | -                   | 140,726 | 24,335 | 165,061 | -              | 45,175    | 11,634   | 3,095      | 59,904    | 0.344                          |
| 2020           | -                   | 145,459 | 24,792 | 170,250 | -              | 46,653    | 11,841   | 3,172      | 61,666    | 0.344                          |
| 2021           | -                   | 150,350 | 25,257 | 175,607 | -              | 48,178    | 12,052   | 3,251      | 63,480    | 0.343                          |
| 2022           | -                   | 155,406 | 25,732 | 181,137 | -              | 49,753    | 12,266   | 3,332      | 65,351    | 0.342                          |
| 2023           | -                   | 160,631 | 26,215 | 186,846 | -              | 51,380    | 12,485   | 3,414      | 67,279    | 0.342                          |
| 2024           | -                   | 166,033 | 26,707 | 192,740 | -              | 53,060    | 12,707   | 3,499      | 69,266    | 0.341                          |
| 2025           | -                   | 171,616 | 27,209 | 198,825 | -              | 54,795    | 12,933   | 3,586      | 71,314    | 0.341                          |
| 2026           | -                   | 176,304 | 27,545 | 203,849 | -              | 56,144    | 13,065   | 3,646      | 72,855    | 0.340                          |
| 2027           | -                   | 181,120 | 27,884 | 209,005 | -              | 57,525    | 13,199   | 3,708      | 74,432    | 0.338                          |
| 2028           | -                   | 186,068 | 28,228 | 214,296 | -              | 58,941    | 13,334   | 3,770      | 76,045    | 0.337                          |
| 2029           | -                   | 191,151 | 28,576 | 219,728 | -              | 60,391    | 13,471   | 3,834      | 77,696    | 0.336                          |
| 2030           | -                   | 196,373 | 28,929 | 225,302 | -              | 61,878    | 13,608   | 3,898      | 79,385    | 0.335                          |
| 2031           | -                   | 201,738 | 29,285 | 231,023 | -              | 63,401    | 13,748   | 3,964      | 81,112    | 0.334                          |
| 2032           | -                   | 207,249 | 29,647 | 236,895 | -              | 64,961    | 13,888   | 4,031      | 82,880    | 0.333                          |
| 2033           | -                   | 212,911 | 30,012 | 242,923 | -              | 66,560    | 14,030   | 4,099      | 84,689    | 0.332                          |
| 2034           | -                   | 218,727 | 30,382 | 249,109 | -              | 68,198    | 14,174   | 4,168      | 86,539    | 0.331                          |
| 2035           | -                   | 224,702 | 30,757 | 255,459 | -              | 69,876    | 14,319   | 4,238      | 88,433    | 0.330                          |

<sup>(1)</sup> Average toll calculation does not include the administrative fee.





**Table 6-6**  
**Estimated Annual Toll Transactions and Revenue**  
**Partial Open Road Tolling**  
**Total MDX system**

| Fiscal<br>Year | Transactions (000s) |         |        |         | Revenue (000s) |           |          |            |            | Average<br>Toll <sup>(1)</sup> |
|----------------|---------------------|---------|--------|---------|----------------|-----------|----------|------------|------------|--------------------------------|
|                | Cash                | SunPass | Video  | Total   | Cash           | SunPass   | Video    | Admin. Fee | Total      |                                |
| 2011           | 19,853              | 152,190 | 17,225 | 189,268 | \$ 23,340      | \$ 94,890 | \$ 9,190 | \$ 2,699   | \$ 130,119 | \$ 0.673                       |
| 2012           | 15,341              | 201,729 | 29,558 | 246,628 | 17,669         | 104,020   | 14,911   | 4,201      | 140,801    | 0.554                          |
| 2013           | 15,178              | 209,436 | 28,744 | 253,359 | 17,475         | 108,095   | 14,614   | 4,157      | 144,341    | 0.553                          |
| 2014           | 15,020              | 217,456 | 27,955 | 260,431 | 17,286         | 112,351   | 14,324   | 4,114      | 148,076    | 0.553                          |
| 2015           | 14,867              | 225,801 | 27,189 | 267,857 | 17,104         | 116,798   | 14,040   | 4,074      | 152,016    | 0.552                          |
| 2016           | 15,052              | 233,083 | 27,705 | 275,841 | 17,318         | 120,314   | 14,295   | 4,178      | 156,105    | 0.551                          |
| 2017           | 15,240              | 240,604 | 28,231 | 284,075 | 17,536         | 123,939   | 14,554   | 4,285      | 160,314    | 0.549                          |
| 2018           | 15,431              | 248,371 | 28,767 | 292,569 | 17,757         | 127,677   | 14,818   | 4,395      | 164,648    | 0.548                          |
| 2019           | 15,625              | 256,393 | 29,313 | 301,331 | 17,981         | 131,532   | 15,087   | 4,508      | 169,108    | 0.546                          |
| 2020           | 15,822              | 264,677 | 29,870 | 310,369 | 18,209         | 135,507   | 15,361   | 4,623      | 173,701    | 0.545                          |
| 2021           | 16,023              | 273,233 | 30,437 | 319,692 | 18,441         | 139,606   | 15,640   | 4,742      | 178,429    | 0.543                          |
| 2022           | 16,226              | 282,069 | 31,015 | 329,310 | 18,677         | 143,834   | 15,924   | 4,863      | 183,297    | 0.542                          |
| 2023           | 16,433              | 291,195 | 31,604 | 339,232 | 18,916         | 148,194   | 16,213   | 4,988      | 188,310    | 0.540                          |
| 2024           | 16,643              | 300,621 | 32,204 | 349,468 | 19,159         | 152,690   | 16,507   | 5,116      | 193,472    | 0.539                          |
| 2025           | 16,856              | 310,357 | 32,815 | 360,028 | 19,406         | 157,327   | 16,807   | 5,247      | 198,787    | 0.538                          |
| 2026           | 17,232              | 320,526 | 33,296 | 371,054 | 19,819         | 162,462   | 17,035   | 5,365      | 204,681    | 0.537                          |
| 2027           | 17,617              | 331,039 | 33,785 | 382,441 | 20,241         | 167,770   | 17,267   | 5,486      | 210,764    | 0.537                          |
| 2028           | 18,011              | 341,910 | 34,281 | 394,202 | 20,672         | 173,257   | 17,502   | 5,610      | 217,042    | 0.536                          |
| 2029           | 18,413              | 353,149 | 34,787 | 406,349 | 21,112         | 178,930   | 17,742   | 5,738      | 223,522    | 0.536                          |
| 2030           | 18,824              | 364,771 | 35,300 | 418,895 | 21,562         | 184,795   | 17,985   | 5,869      | 230,210    | 0.536                          |
| 2031           | 19,245              | 376,789 | 35,822 | 431,855 | 22,021         | 190,859   | 18,232   | 6,003      | 237,115    | 0.535                          |
| 2032           | 19,675              | 389,216 | 36,352 | 445,243 | 22,490         | 197,128   | 18,483   | 6,141      | 244,242    | 0.535                          |
| 2033           | 20,114              | 402,068 | 36,892 | 459,074 | 22,969         | 203,610   | 18,739   | 6,282      | 251,600    | 0.534                          |
| 2034           | 20,564              | 415,358 | 37,440 | 473,362 | 23,458         | 210,312   | 18,999   | 6,427      | 259,196    | 0.534                          |
| 2035           | 21,023              | 429,103 | 37,998 | 488,124 | 23,958         | 217,242   | 19,263   | 6,576      | 267,039    | 0.534                          |

<sup>(1)</sup> Average toll calculation does not include the administrative fee.

Annual toll revenue (total revenue minus administrative fees) is expected to reach \$127.4 million in 2011. Annual toll revenue is estimated to increase to \$147.9 million by 2015, \$193.5 million by 2025, and \$260.5 million by 2035.

Due to estimated increases in SunPass<sup>®</sup> participation, cash and video transactions are expected to decline between FY 2011 and FY 2015 given the price differential between SunPass<sup>®</sup> and other methods of payment. However, as the rate at which MDX customers switching to SunPass<sup>®</sup> slows after FY 2015, the number of cash and video transactions are estimated to increase proportionally with overall traffic.

The average toll is also expected to decrease during the forecast period, as a result an assumed increase in SunPass<sup>®</sup> participation. As motorists switch from video to SunPass<sup>®</sup> usage they pay a lower toll and the average systemwide toll rate is reduced. Between FY 2012 and FY 2035, the average annual toll rate is estimated to decrease by \$0.020 from \$0.554 to \$0.534. Although average toll rates are estimated to decrease as a result of increased SunPass<sup>®</sup> participation, transactions are estimated to increase such that estimated revenues also increase during the forecast period.

## **ANNUAL TRANSACTIONS AND REVENUE COMPARISON - EXISTING VERSUS PARTIAL OPEN ROAD TOLLING SYSTEMS**

Table 6-7 and Figure 6-1 present a comparison of the estimated annual transactions and revenue of the Existing versus the partial ORT toll collection systems. Total transactions under the existing toll collection system are estimated to increase from 125.7 million in fiscal year 2012 to 136.3 million in 2015, or a growth rate of 2.7 percent per annum. Transactions are estimated to increase to 183.6 million by 2025, or by 3.0 percent per annum from 2015. By 2035, transactions are estimated to reach 237.9 million.

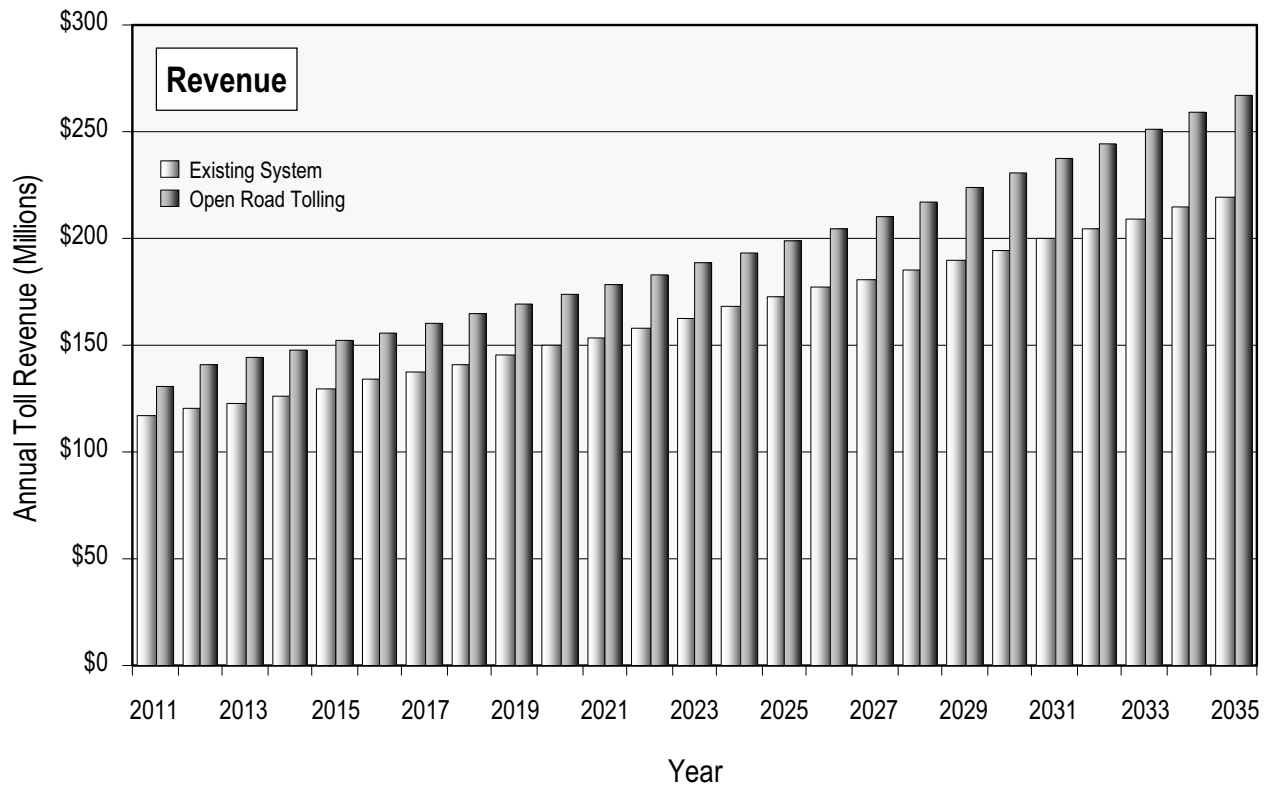
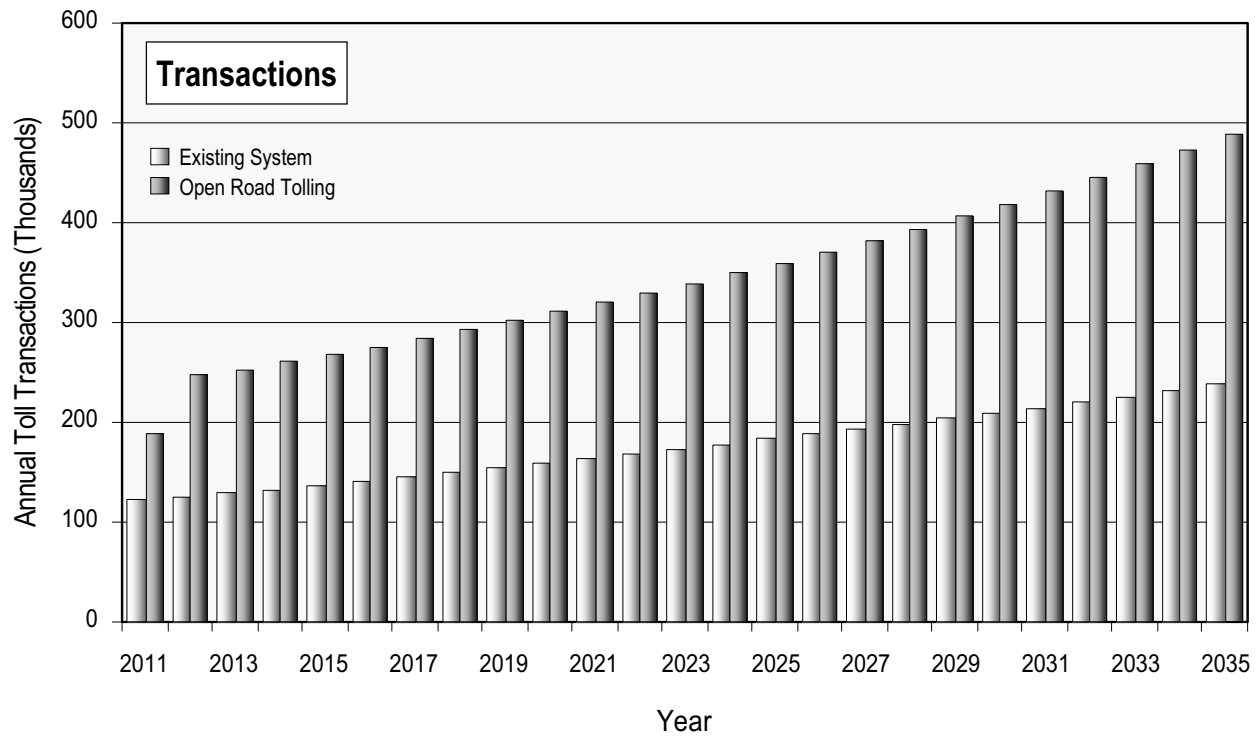
Under partial ORT, total transactions are estimated to increase from 246.6 million in 2012 to 267.9 million in 2015, or 2.8 percent per annum. By 2025, transactions are estimated to increase to 360.0 million, a 3.0 percent per annum increase over 2015. Total transactions are estimated to reach 488.1 million, or over 1.3 million per day by 2035.

The difference in the estimated number of transactions between the Existing and partial ORT systems is 120.9 million in fiscal year 2012, 131.5 million in fiscal year 2015, and 176.5 million in fiscal year 2025.

The partial ORT system is estimated to generate \$20.6 million in additional revenue in fiscal year 2012. In fiscal year 2015, the additional revenue generated is \$22.1 million, increasing to an estimated \$26.1 million by 2025. By 2035, the partial ORT system will generate an estimated \$47.3 million in additional revenue under the existing toll collection system.

**Table 6-7**  
**Estimated Annual Transactions and Revenue**  
**Comparison of Existing and Partial Open Road Tolling**

| Fiscal<br>Year | Transactions (000s) |                                 |            | Revenue (000s)     |                                 |            |
|----------------|---------------------|---------------------------------|------------|--------------------|---------------------------------|------------|
|                | Existing<br>System  | Partial<br>Open Road<br>Tolling | Difference | Existing<br>System | Partial<br>Open Road<br>Tolling | Difference |
| 2011           | 122,212             | 189,268                         | 67,056     | \$ 117,295         | \$ 130,119                      | \$ 12,824  |
| 2012           | 125,691             | 246,628                         | 120,937    | 120,242            | 140,801                         | 20,559     |
| 2013           | 129,047             | 253,359                         | 124,312    | 123,295            | 144,341                         | 21,046     |
| 2014           | 132,583             | 260,431                         | 127,847    | 126,525            | 148,076                         | 21,551     |
| 2015           | 136,310             | 267,857                         | 131,547    | 129,941            | 152,016                         | 22,075     |
| 2016           | 140,384             | 275,841                         | 135,456    | 133,641            | 156,105                         | 22,464     |
| 2017           | 144,591             | 284,075                         | 139,485    | 137,457            | 160,314                         | 22,857     |
| 2018           | 148,933             | 292,569                         | 143,636    | 141,394            | 164,648                         | 23,253     |
| 2019           | 153,417             | 301,331                         | 147,914    | 145,456            | 169,108                         | 23,652     |
| 2020           | 158,047             | 310,369                         | 152,322    | 149,647            | 173,701                         | 24,054     |
| 2021           | 162,828             | 319,692                         | 156,864    | 153,971            | 178,429                         | 24,458     |
| 2022           | 167,764             | 329,310                         | 161,545    | 158,433            | 183,297                         | 24,864     |
| 2023           | 172,862             | 339,232                         | 166,369    | 163,038            | 188,310                         | 25,272     |
| 2024           | 178,127             | 349,468                         | 171,340    | 167,790            | 193,472                         | 25,682     |
| 2025           | 183,565             | 360,028                         | 176,463    | 172,694            | 198,787                         | 26,093     |
| 2026           | 188,352             | 371,054                         | 182,702    | 176,871            | 204,681                         | 27,810     |
| 2027           | 193,273             | 382,441                         | 189,168    | 181,157            | 210,764                         | 29,607     |
| 2028           | 198,329             | 394,202                         | 195,872    | 185,556            | 217,042                         | 31,486     |
| 2029           | 203,527             | 406,349                         | 202,822    | 190,071            | 223,522                         | 33,451     |
| 2030           | 208,868             | 418,895                         | 210,027    | 194,704            | 230,210                         | 35,507     |
| 2031           | 214,359             | 431,855                         | 217,497    | 199,459            | 237,115                         | 37,656     |
| 2032           | 220,002             | 445,243                         | 225,241    | 204,340            | 244,242                         | 39,902     |
| 2033           | 225,803             | 459,074                         | 233,271    | 209,350            | 251,600                         | 42,250     |
| 2034           | 231,765             | 473,362                         | 241,597    | 214,492            | 259,196                         | 44,705     |
| 2035           | 237,894             | 488,124                         | 250,230    | 219,770            | 267,039                         | 47,269     |



## **DISCLAIMER**

Current accepted professional practices and procedures were used in the development of these traffic and revenue forecasts. However, as with any forecast of the future, it should be understood that there may be differences between forecasted and actual results caused by events and circumstances beyond the control of the forecasters. In formulating its forecasts, WSA has reasonably relied upon the accuracy and completeness of information provided (both written and oral) by the MDX and other local and state agencies. WSA also has relied upon the reasonable assurances of some independent parties and is not aware of any facts that would make such information misleading.

WSA has made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue forecasts that must be considered as a whole; therefore selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. WSA gives no opinion as to the value or merit to partial information extracted from this report.

All estimates and projections reported herein are based on WSA's experience and judgment and on a review of information obtained from multiple state and local agencies, including MDX, by an independent third party. These estimates and projections may not be indicative of actual or future values, and are therefore subject to substantial uncertainty. Future developments cannot be predicted with certainty, and may affect the estimates or projections expressed in this report, such that WSA does not specifically guarantee or warrant any estimates or projections contained within this report.

While WSA believes that some of the projections or other forward-looking statements contained within the report are based on reasonable assumptions as of the date in the report, such forward looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, WSA will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to: socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

# CHAPTER 7

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## SENSITIVITY TEST

A sensitivity test was conducted to provide a measure of the impacts on annual transactions and revenue based on changes to key study assumptions. The test assumed full systemwide ORT implementation beginning in FY 2015. That meant that in addition to implementation of ORT on SR 924, SR 874 and SR 878, ORT would also be implemented on SR 112 and SR 836, as well. Traffic assignments were run for fiscal years 2015 and 2035.

### IMPACT OF SYSTEMWIDE ORT IMPLEMENTATION

The principal objective of the Systemwide Traffic and Revenue Study was to develop estimates of annual traffic and toll revenue under a scenario with partial ORT implementation. While MDX plans and programs include ORT implementation on its entire system of Expressways, it is not scheduled for implementation on SR 112 and SR 836 until FY 2015. Because toll rates not having been formally adopted by MDX for SR 112 and SR 836 upon conversion to ORT, the traffic and revenue analysis could only account for ORT implementation on SR 924, SR 874 and SR 878. The sensitivity test described in this section was run to estimate the annual traffic and revenue impacts of ORT implementation on the entirety of the MDX system, including SR 112 and SR 836. The test was conducted for fiscal years 2015 and 2035. The modified traffic model assumptions used for this sensitivity test, as well as the estimated traffic and revenue impacts, are described below.

#### MODEL ASSUMPTIONS

WSA used the same trip tables, highway networks and basic assumptions for full systemwide ORT implementation as was used to develop the traffic and revenue estimates for partial ORT implementation, with the exception of the toll locations and rates charged on MDX facilities.

In order to model full systemwide ORT implementation, the toll rates on SR 112 and SR 836 were modified. Table 7-1 provides a summary of the ORT gantry locations and the passenger car-based toll rates that were assumed under systemwide ORT implementation, as per the 2006 MDX Open Road Tolling Master Plan. For the purposes of this sensitivity test, and consistent with the previously published MDX schedule of ORT implementation, WSA assumed systemwide ORT implementation would be completed by FY 2015.

**Table 7-1**  
**Full Systemwide Open Road Tolling Toll Rate Assumptions**  
**Passenger Car-Based Rates**

| Expressway | Toll Plaza                           |          |           | Toll                   |                |         |                               |
|------------|--------------------------------------|----------|-----------|------------------------|----------------|---------|-------------------------------|
|            |                                      |          |           | SunPass <sup>(1)</sup> | Video          |         | Non-Registered <sup>(2)</sup> |
|            | Location                             | Type     | Direction |                        | Pre-Registered |         |                               |
| SR 924     | West of NW 42 <sup>nd</sup> Avenue   | Mainline | Both      | \$ 0.50                | \$ 0.65        | \$ 0.65 |                               |
|            | West of W 4 <sup>th</sup> Avenue     | Mainline | Both      | 0.50                   | 0.65           | 0.65    |                               |
| SR 112     | West of NW 27th St.                  | Mainline | Both      | 0.25                   | 0.40           | 0.40    |                               |
|            | West of 12 <sup>th</sup> Avenue      | Mainline | Both      | 0.25                   | 0.40           | 0.40    |                               |
|            | NW 17th Ave.                         | Ramp     | T/F East  | 0.25                   | 0.40           | 0.40    |                               |
| SR 836     | NW 12th Ave.                         | Ramp     | T/F East  | 0.25                   | 0.40           | 0.40    |                               |
|            | West of NW 17 <sup>th</sup> Avenue   | Mainline | Both      | 0.50                   | 0.65           | 0.65    |                               |
|            | 17 <sup>th</sup> Avenue              | Ramp     | T/F West  | 0.50                   | 0.65           | 0.65    |                               |
|            | NW 27th Ave.                         | Ramp     | T/F West  | 0.25                   | 0.40           | 0.40    |                               |
|            | NW 57th Ave.                         | Ramp     | T/F East  | 0.25                   | 0.40           | 0.40    |                               |
|            | West of NW 57th Ave.                 | Mainline | Both      | 0.50                   | 0.65           | 0.65    |                               |
|            | NW 72nd Ave.                         | Ramp     | T/F West  | 0.25                   | 0.40           | 0.40    |                               |
|            | NW 87th Ave.                         | Ramp     | T/F East  | 0.25                   | 0.40           | 0.40    |                               |
|            | West of NW 97 <sup>th</sup> Avenue   | Mainline | Both      | 0.50                   | 0.65           | 0.65    |                               |
|            | NW 107th Ave.                        | Ramp     | T/F West  | 0.25                   | 0.40           | 0.40    |                               |
| SR 874     | East of NW 137 <sup>th</sup> Avenue  | Mainline | Both      | 0.25                   | 0.40           | 0.40    |                               |
|            | North of HEFT                        | Mainline | Both      | 0.25                   | 0.40           | 0.40    |                               |
|            | North of SW 104 <sup>th</sup> Street | Mainline | Both      | 0.25                   | 0.40           | 0.40    |                               |
| SR 878     | South of SR 826                      | Mainline | Both      | 0.50                   | 0.65           | 0.65    |                               |
|            | East of SR 874                       | Mainline | Both      | 0.25                   | 0.40           | 0.40    |                               |
|            | East of SW 87 <sup>th</sup> Avenue   | Mainline | Both      | 0.25                   | 0.40           | 0.40    |                               |

<sup>(1)</sup> SunPass Rates are from the 2006 MDX Open Road Tolling Master Plan.

<sup>(2)</sup> Non-registered video customers would also be assessed a \$3.00 administrative fee with each monthly invoice.

T/F = to/from

n.a. = not applicable

#### **ESTIMATED TRANSACTIONS AND REVENUE**

The estimated traffic and toll revenue for full systemwide ORT implementation in fiscal years 2015 and 2035 are provided in Table 7-2 and Table 7-3, respectively. Estimated annual transactions for fiscal year 2015 are 442.8 million. The 216.4 million estimated transactions for SR 836 represent almost 48.9 percent of total transactions, while the 123.6 million estimated transactions for SR 874 represent almost 27.9 percent of total transactions. This is due to the relatively higher estimated traffic volumes and the number of planned tolling locations of these roadways. Estimated total revenue for fiscal year 2015 is \$185.1 million, with an estimated \$25.6 million coming from video tolls and another \$6.0 million coming from administrative fee revenue.

By fiscal year 2035, total annual transactions are estimated to increase to 752.5 million. Transactions on SR 836 and SR 874 are estimated to continue to represent a significant share of total transactions. Estimated total revenue for fiscal year 2035 is \$303.6 million, with an estimated \$33.7 million coming from video tolls and another \$8.9 million from administrative fee revenue.

The impact of systemwide ORT implementation is shown in Table 7-4, which provides a comparison of the systemwide transactions and revenue under partial and full systemwide ORT implementation. Again, partial ORT implementation refers to ORT on SR 924, SR 874 and SR 878, only. Under partial ORT implementation, estimated annual transactions are 267.9 million in fiscal year 2015 and 488.1 million in fiscal year 2035. Estimated annual transactions are 442.8 million in fiscal year 2015 and 752.5 million in fiscal year 2035 under full systemwide ORT, an increase of 65.3 percent and 54.2 percent, respectively, over partial ORT implementation.

Under partial ORT implementation, estimated annual revenue is \$147.9 million in fiscal year 2015 and \$260.5 in fiscal year 2035. Estimated annual revenue, excluding administrative fee revenue, is \$179.0 million in fiscal year 2015 and \$294.7 million in fiscal year 2035 under full systemwide ORT implementation, an increase of 21.0 percent and 13.1 percent, respectively.



**Table 7-2**  
**Estimated Annual Transactions and Revenue**  
**Systemwide Open Road Tolling**  
**Fiscal Year 2015**

| Expressway                 | Transactions (000s) |        |         | Revenue (000s) |           |            |
|----------------------------|---------------------|--------|---------|----------------|-----------|------------|
|                            | SunPass             | Video  | Total   | SunPass        | Video     | Total      |
| SR 924                     | 26,672              | 3,226  | 29,898  | \$ 14,246      | \$ 2,240  | \$ 16,486  |
| SR 112                     | 46,238              | 7,040  | 53,278  | 12,100         | 2,889     | 14,989     |
| SR 836                     | 195,156             | 21,265 | 216,421 | 86,383         | 12,538    | 98,921     |
| SR 874                     | 109,151             | 14,409 | 123,560 | 36,298         | 7,045     | 43,343     |
| SR 878                     | 17,527              | 2,122  | 19,649  | 4,445          | 861       | 5,306      |
| Total                      | 394,744             | 48,062 | 442,806 | \$ 153,472     | \$ 25,573 | \$ 179,045 |
| Administrative Fee Revenue |                     |        |         |                |           | \$ 6,009   |
| Total Annual Revenue       |                     |        |         |                |           | \$ 185,054 |

**Table 7-3**  
**Estimated Annual Transactions and Revenue**  
**Systemwide Open Road Tolling**  
**Fiscal Year 2035**

| Expressway                 | Transactions (000s) |        |         | Revenue (000s) |           |            |
|----------------------------|---------------------|--------|---------|----------------|-----------|------------|
|                            | SunPass             | Video  | Total   | SunPass        | Video     | Total      |
| SR 924                     | 58,018              | 5,243  | 63,261  | \$ 30,526      | \$ 3,576  | \$ 34,102  |
| SR 112                     | 86,954              | 10,635 | 97,589  | 22,473         | 4,313     | 26,786     |
| SR 836                     | 305,256             | 25,431 | 330,687 | 133,997        | 14,833    | 148,830    |
| SR 874                     | 200,224             | 19,992 | 220,216 | 64,649         | 9,533     | 74,182     |
| SR 878                     | 37,218              | 3,532  | 40,750  | 9,378          | 1,424     | 10,802     |
| Total                      | 687,670             | 64,833 | 752,503 | \$ 261,023     | \$ 33,679 | \$ 294,702 |
| Administrative Fee Revenue |                     |        |         |                |           | \$ 8,913   |
| Total Annual Revenue       |                     |        |         |                |           | \$ 303,615 |

**Table 7-4**  
**Estimated Annual Transactions and Revenue**  
**Partial versus Systemwide ORT Implementation**

| ORT<br>Implementation | Transactions (000s) |         | Revenue (000s) <sup>(1)</sup> |            |
|-----------------------|---------------------|---------|-------------------------------|------------|
|                       | 2015                | 2035    | 2015                          | 2035       |
| Partial               | 267,857             | 488,124 | \$ 147,942                    | \$ 260,463 |
| Systemwide            | 442,806             | 752,503 | \$ 179,045                    | \$ 294,702 |
| Difference            | 174,949             | 264,379 | \$ 31,103                     | \$ 34,239  |

<sup>(1)</sup> Excludes revenue generated from the  
unregistered video user administrative fee.

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**APPENDIX D**

**AUDITED FINANCIAL STATEMENTS OF THE AUTHORITY  
FISCAL YEARS ENDED JUNE 30, 2009 AND 2008**

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Miami-Dade County Expressway Authority  
d/b/a  
Miami-Dade County Expressway Authority and MDX

Comprehensive Annual Financial Report  
Fiscal Year Ended June 30, 2009



3790 NW 21st Street  
Miami, Florida 33142

[www.mdxway.com](http://www.mdxway.com)



MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX

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**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
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[Message From the Executive Director and Introductory Section Intentionally Omitted]

## INDEPENDENT AUDITOR'S REPORT

Members of the  
Miami-Dade County Expressway Authority  
d/b/a Miami-Dade Expressway Authority and MDX

We have audited the accompanying financial statements of the Miami-Dade County Expressway Authority d/b/a Miami-Dade Expressway Authority and MDX (the "Authority"), as of and for the years ended June 30, 2009 and 2008, as listed in the table of contents. 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 audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America 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 audits provide 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 Authority, as of June 30, 2009, and the changes in financial position and cash flows, where applicable, thereof for the year then ended in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, we have also issued our report dated November 12, 2009 on our consideration of the Authority's internal control over financial reporting and 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.

The management's discussion and analysis on pages 13 through 23 are not a required part of the basic financial statements but are supplementary information required by the accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally 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.

Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise the Authority's basic financial statements. The information included in the Schedule of Calculation of Net Revenue and Financial Ratios as Defined and Required by the Trust

Indenture, and the Schedule of Toll Revenues and Expense Summary on pages 58 through 59 are 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, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

The introductory section and statistical section, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements. This information has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on them.

Miami, Florida  
November 12, 2009

*TCBA Water Price LLP*

**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY**  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

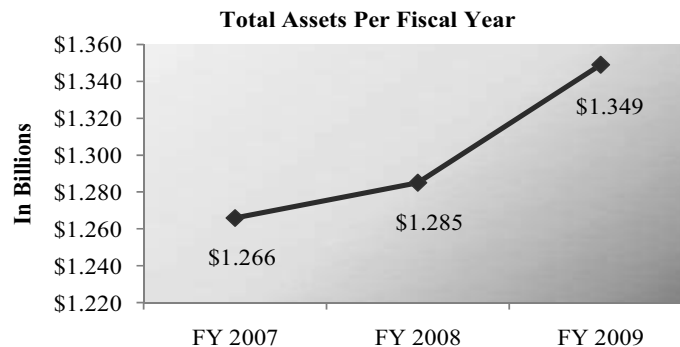
Management's Discussion and Analysis

Years Ended June 30, 2009 and 2008

Management's Discussion and Analysis (MD&A) is presented to provide the readers of these annual financial reports a narrative overview and discussion of the financial activities of the Authority for the fiscal years ended June 30, 2009 and 2008. The MD&A should be read in conjunction with the financial statement and notes as a whole.

**FINANCIAL HIGHLIGHTS**

- ❖ The Authority's total assets of \$1.3 billion increased \$41.7 million or 3.2% in fiscal year 2009, compared to an increase of \$21.7 million or 1.7% in fiscal year 2008
- ❖ The Authority's total capital assets, net of accumulated depreciation, of \$949.4 million increased \$103.9 million or 12.3% in fiscal year 2009, compared to an increase of \$72.9 million or 9.4% in fiscal year 2008
- ❖ The Authority's total liabilities of \$1.02 billion decreased \$6.1 million or less than 1% in fiscal year 2009, compared to a decrease of \$34.9 million or 3.3% in fiscal year 2008
- ❖ The Authority's net assets of \$328.1 million increased \$47.7 million or 17.0% in fiscal year 2009, compared to an increase of \$56.6 million or 25.3% in fiscal year 2008
- ❖ The Authority's toll revenues of \$113.1 million, decreased \$2.7 million or 2.4% in fiscal year 2009, compared to an increase of \$33.8 million or 41.2% in fiscal year 2008
- ❖ The Authority's operating expenses of \$55.7 million, increased \$6.0 million or 12.1% in fiscal year 2009, compared to an increase of \$8.4 million or 20.2% in fiscal year 2008
- ❖ The Authority's operating income of \$58.2 million, decreased \$8.9 million or 13.2% in fiscal year 2009, compared to an increase of \$25.4 million or 61.1% in fiscal year 2008



MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Management's Discussion and Analysis (continued)

Years Ended June 30, 2009 and 2008

**USING THIS ANNUAL REPORT**

This discussion and analysis is intended to serve as an introduction to the Authority's financial statements, notes to the financial statements, supplemental schedules and statistical information. The financial statements of the Authority report information using accounting methods similar to those used by private sector companies.

***Statements of Net Assets*** – This statement presents information on all of the Authority's assets and liabilities, with the difference between the two reported as net assets. Over time, increases or decreases in net assets are useful indicators of whether the Authority's financial position is improving or deteriorating.

***Statements of Revenue, Expenses and Changes in Net Assets*** – This statement presents information showing how the Authority's net assets changed during the fiscal year.

***Statements of Cash Flows*** – This statement presents information about the Authority's cash receipts and cash payments, or, in other words, the sources and uses of the Authority's cash and the change in balance during the fiscal year.

***Notes to the Financial Statements*** – The notes to the financial statements provide additional information that is essential to a full understanding of the data provided in the financial statements.

***Supplemental Schedules*** – Certain supplementary information is presented to report compliance with financial ratio requirements.

***Statistical Information*** – Certain information is presented to report historical and trend analysis of net assets, revenue, expenses and changes in net assets, toll revenues, traffic, toll rate structure, electronic tolling participation, debt capacity, demographic data and operating information.

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**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY**  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

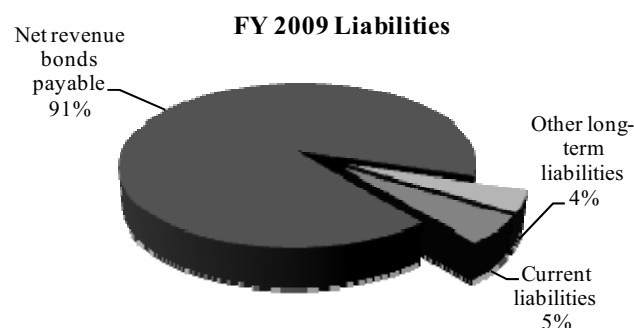
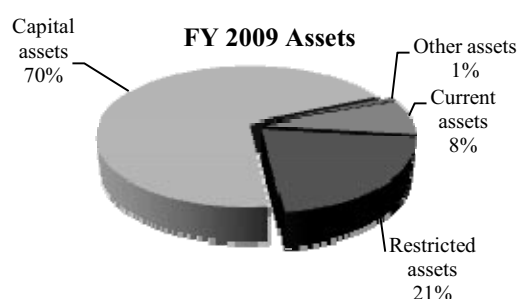
Management's Discussion and Analysis (continued)

Years Ended June 30, 2009 and 2008

**Financial Analysis**

**Net Assets**

|                                                                                | <b>June 30,</b> |                |                |
|--------------------------------------------------------------------------------|-----------------|----------------|----------------|
|                                                                                | <b>2009</b>     | <b>2008</b>    | <b>2007</b>    |
| Current and other assets                                                       | \$ 399,891,741  | \$ 462,136,041 | \$ 513,347,218 |
| Capital assets                                                                 | 949,359,479     | 845,452,964    | 772,533,560    |
| Total assets                                                                   | 1,349,251,220   | 1,307,589,005  | 1,285,880,778  |
| Current liabilities                                                            | 53,371,899      | 49,812,915     | 70,505,828     |
| Revenue bonds payable, net of current portion, bond discount and deferred cost | 925,173,039     | 933,070,484    | 940,600,058    |
| Other long-term liabilities                                                    | 42,577,462      | 44,312,011     | 51,015,282     |
| Total liabilities                                                              | 1,021,122,400   | 1,027,195,410  | 1,062,121,168  |
| Net assets                                                                     |                 |                |                |
| Invested in capital assets, net of related debt                                | 122,025,879     | 132,568,036    | 87,536,659     |
| Restricted for debt service                                                    | 95,236,431      | 46,561,365     | 43,469,374     |
| Restricted                                                                     | 12,106,813      | 7,853,838      | 8,911,664      |
| Unrestricted                                                                   | 98,759,697      | 93,410,356     | 83,841,913     |
| Total net assets                                                               | \$ 328,128,820  | \$ 280,393,595 | \$ 223,759,610 |



**Current and Other Assets**

Current and other assets of the Authority include restricted assets in the form of bond proceeds and revenue set aside in the following funds: Revenue, Sinking, General (partially restricted), Rate Stabilization, Debt Service Reserve, Renewal and Replacement, Cost of Issuance, Construction and Rebate.

As of June 30, 2009 and 2008, current and other assets were \$399.9 million and \$462.1 million, respectively. Current and other assets decreased \$62.2 million or 13.5% from fiscal year 2008, compared to a \$51.2 million or 10.0% decrease from fiscal year 2007. The decrease for fiscal year 2009 was due to a decrease in restricted assets of \$74.6 million and unamortized bond issuance costs of \$900,000. The decreases were due to the reduction of restricted cash for capital expenditures during the year and amortization of bond issuance costs. The decrease was partially offset by an increase in current assets of \$13.2 million due to net income classified as cash and investments.

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Management's Discussion and Analysis (continued)

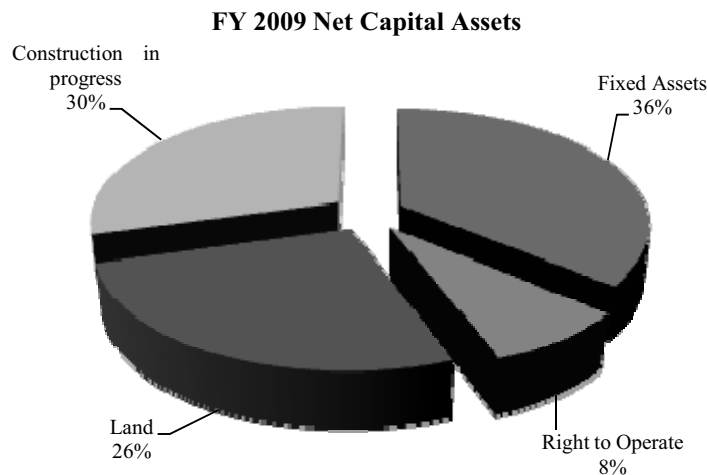
Years Ended June 30, 2009 and 2008

The decrease in current and other assets for fiscal year 2008 was primarily due to a decrease in cash, cash equivalents, and investments of \$43.8 million and accounts receivable of \$6.8 million. The decrease in cash, cash equivalents, and investments was due to capital expenditures. The accounts receivable decrease was due primarily to reimbursements from the Federal Highway Administration (FHWA) for Hurricane Wilma and Katrina related costs.

### Capital Assets

As of June 30, 2009, the Authority's investment in net capital assets were \$949.4 million, an increase from fiscal year 2008 of \$103.9 million or 12.3%, compared to a \$72.9 million or 9.4% increase from fiscal year 2007. For fiscal years 2009 and 2008, the additions to construction in progress included capital expenditures for construction projects of \$100.4 and \$69.7 million, respectively; capitalized interest of \$20.7 and \$19.2 million, respectively; and indirect cost allocations of \$3.1 and \$2.8 million, respectively.

The Authority implemented GASB Statement No. 51, *Accounting and Financial Reporting of Intangible Assets*, which requires the Authority to reclassify its right to operate from other assets to the capital assets section and adjust accumulated amortization.



Major capital asset events during **Fiscal Year 2009** included the following:

- ❖ The SR 874 North Bound On-ramp from Kendall Drive project was completed in January 2009. The total project expenditures were \$42.3 million, with \$7.5 million expended in fiscal year 2009.
- ❖ Construction continues on the SR 874 / Killian Parkway Interchange project. The Authority anticipates completion of this project in November 2011. The total project cost excluding right-of-way acquisition is \$83.0 million, with \$25.1 million expended in fiscal year 2009.
- ❖ The SR 836 Median Closure project was completed in April 2009. The total project expenditures were \$1.4 million, with \$1.3 million expended in fiscal year 2009.

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Management's Discussion and Analysis (continued)

Years Ended June 30, 2009 and 2008

- ❖ Progress continues on the SR 874 / SR 826 Interchange project. The Authority anticipates completion of this project in Feb 2011. The total project cost is \$60.1 million, with \$30.0 million expended in fiscal year 2009.
- ❖ Construction continues on the Systemwide Communications & Incident Management /Surveillance projects. The Authority anticipates completion of these projects in February 2010. The total project cost is \$16.2 million, with \$8.2 million expended in fiscal year 2009.
- ❖ Improvements continue on the System-wide Landscaping project. The Authority anticipates completion of this project in June 2010. The total project cost is \$5.0 million, with \$610,000 expended in fiscal year 2009.
- ❖ Progress continues on the Systemwide Guardrail Improvement project. The Authority anticipates completion of this project in December 2010. The total project cost is \$4.5 million, with \$925,000 expended in fiscal year 2009.

(See Note 4, "Capital Assets", in the Notes to the Financial Statements for a more detailed discussion.)

**Liabilities**

**Current Liabilities**

As of June 30, 2009 and June 30, 2008, the Authority's current liabilities totaled \$53.4 million and \$49.8 million, respectively. Fiscal year 2009 current liabilities increased from fiscal year 2008, \$3.5 million or 7.0%, primarily due to accounts and contracts payable. Fiscal year 2008 current liabilities decreased from fiscal year 2007, \$20.7 million or 29.4%, primarily due to a reduction in accounts and contract payables as one of the most significant projects on SR 836 was completed in fiscal year 2007.

**Revenue Bonds Payable**

As of June 30, 2009 and June 30, 2008, the Authority's outstanding long-term revenue bonds payable totaled \$925.2 million and \$933.1 million, respectively (net of unamortized bond premiums and discounts, and deferred losses on refunding), of which \$7.9 million and \$7.5 million, respectively, are due within one year. During fiscal year 2009, revenue bonds payable decreased \$7.5 million from fiscal year 2008, compared to a decrease of \$7.2 million from fiscal year 2007. Fiscal year 2009 and 2008, decreases were due to principal payments paid during the fiscal year.

|                                          | <b>June 30,</b> |               |               |
|------------------------------------------|-----------------|---------------|---------------|
|                                          | <b>2009</b>     | <b>2008</b>   | <b>2007</b>   |
| Revenue bonds outstanding                | \$928,454,998   | \$935,991,664 | \$943,153,331 |
| Net unamortized bonds premium/discount   | 4,629,707       | 4,615,486     | 4,608,393     |
| Total revenue bonds, net                 | 933,084,705     | 940,607,150   | 947,761,724   |
| Current portion of revenue bonds payable | 7,911,666       | 7,536,666     | 7,161,666     |
| Total long-term revenue bonds            | \$925,173,039   | \$933,070,484 | \$940,600,058 |



**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY**  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

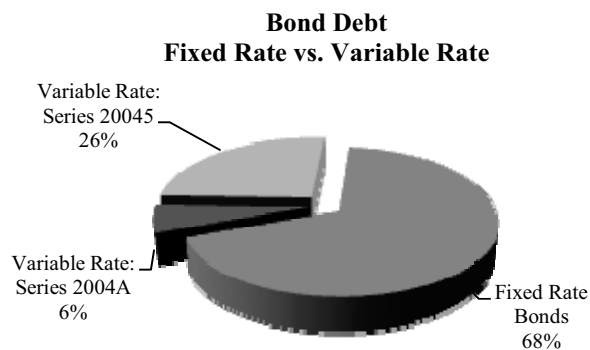
Management's Discussion and Analysis (continued)

Years Ended June 30, 2009 and 2008

As of June 30, 2009, the Authority's total revenue bonds outstanding, net, consists of fixed rate of \$635.0 million and variable rate of \$298.0 million. The variable rate bonds are comprised of Series 2004A and 2005 which are bank privately placed. The Authority maintains the right to convert or refund the bonds upon notice to the bank.

As of June 30, 2009, the Authority has in effect four separate interest rate swap agreements for Bond Series 2004A and 2005. The swap agreements are based on the Securities Industry and Financial Markets Association Swap Index (SIFMA) 30 day mode. The Authority has agreed to pay interest to its swap counterparties 5.462% for Series 2004A and 4.372% for Series 2005 in exchange for the SIFMA index.

(See Note 6, "Long-Term Liabilities", in the Notes to the Financial Statements for a more detailed discussion)



**Other Long-Term Liabilities**

As of June 30, 2009 and June 30, 2008, the Authority's other long-term liabilities outstanding totaled \$42.6 million and \$44.3 million, respectively. Fiscal year 2009, other long-term liabilities were comprised of other government loans of \$41.2 million and arbitrage payable of \$1.4 million, an overall decrease of \$1.7 million or 3.9% from fiscal year 2008, due to \$8.7 million of principal payments and \$565,000 net change in arbitrage payable. The decrease was partially offset by the receipt of a state government loan of \$5.0 million and net change of current portion of government loans of \$2.5 million.

Fiscal year 2008, other long-term liabilities were comprised of other government loans of \$42.4 million and arbitrage payable of \$1.9 million, an overall decrease of \$6.8 million or 13.3% from fiscal year 2007, due to \$11.7 million of principal payments, partially offset by the receipt of a state government loan of \$1.5 million and net change of current portion of government loans of \$3.0 million and arbitrage payable of \$465,000.

**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY**  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

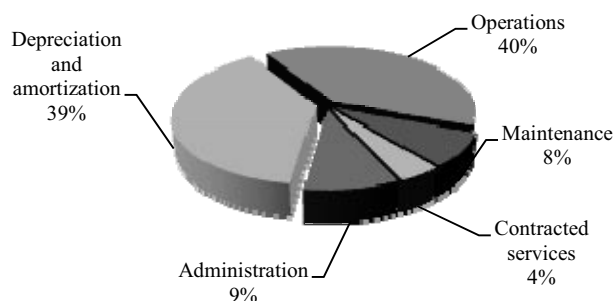
Management's Discussion and Analysis (continued)

Years Ended June 30, 2009 and 2008

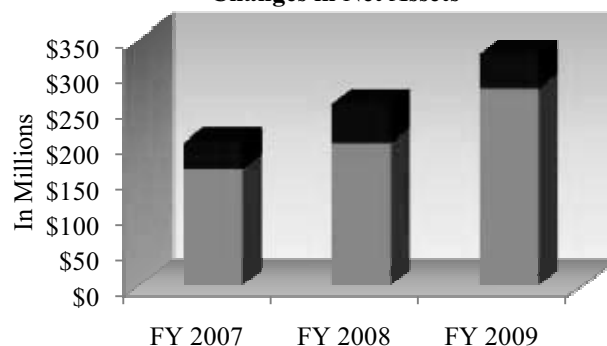
**Changes in Net Assets**

|                                                          | <b>Years Ended June 30,</b> |                       |                       |
|----------------------------------------------------------|-----------------------------|-----------------------|-----------------------|
|                                                          | <b>2009</b>                 | <b>2008</b>           | <b>2007</b>           |
| Operating revenues:                                      |                             |                       |                       |
| Toll revenue                                             | \$ 113,075,908              | \$ 115,799,343        | \$ 82,029,539         |
| Lease and other                                          | 788,848                     | 935,041               | 922,179               |
| Total operating revenues                                 | <u>113,864,756</u>          | <u>116,734,384</u>    | <u>82,951,718</u>     |
| Operating expenses:                                      |                             |                       |                       |
| Operations                                               | 22,536,126                  | 20,056,910            | 16,340,472            |
| Maintenance                                              | 4,598,681                   | 3,904,474             | 7,342,521             |
| Contracted services                                      | 2,333,039                   | 2,273,131             | 2,469,537             |
| Administration                                           | 5,109,501                   | 3,277,371             | 3,342,588             |
| Depreciation and amortization                            | 21,120,020                  | 20,171,593            | 11,836,262            |
| Total operating expenses                                 | <u>55,697,367</u>           | <u>49,683,479</u>     | <u>41,331,380</u>     |
| Non-operating revenues (expenses):                       |                             |                       |                       |
| Interest, dividend and investment income                 | 13,875,924                  | 20,641,181            | 23,366,643            |
| Interest expense                                         | (25,810,400)                | (31,321,635)          | (29,778,213)          |
| Federal grant - FHWA                                     | -                           | 48,000                | 4,857,717             |
| Disposal of assets                                       | (134,264)                   | (30,964)              | (746,203)             |
| Total non-operating revenues (expenses)                  | <u>(12,068,740)</u>         | <u>(10,663,418)</u>   | <u>(2,300,056)</u>    |
| Income before capital contribution                       | 46,098,649                  | 56,387,487            | 39,320,282            |
| Capital contributions                                    | 1,636,576                   | 246,498               | -                     |
| Change in net assets                                     | <u>47,735,225</u>           | <u>56,633,985</u>     | <u>39,320,282</u>     |
| Net assets, beginning of year                            | 280,393,595                 | 223,759,610           | 166,130,611           |
| Beginning of year adjustment for change in pronouncement | -                           | -                     | 18,308,717            |
| Net assets, beginning of year, adjusted                  | <u>280,393,595</u>          | <u>223,759,610</u>    | <u>184,439,328</u>    |
| Net assets, end of year                                  | <u>\$ 328,128,820</u>       | <u>\$ 280,393,595</u> | <u>\$ 223,759,610</u> |

**FY 2009 Operating Expenses**



**Changes in Net Assets**



**Operating Revenue**

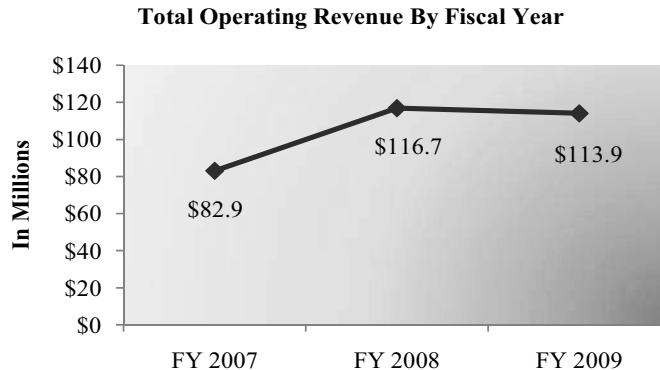
Total operating revenues were \$113.9 million and \$116.7 million for fiscal years 2009 and 2008, respectively. Toll revenues for fiscal year 2009 decreased \$2.7 million or 2.4% over fiscal year 2008, compared to an increase of \$33.8 million or 41.2% over fiscal year 2007. For fiscal year 2009 the decrease was due primarily to economic conditions adversely impacted by the housing market and rising unemployment. The increase for fiscal year 2008 was due primarily to the opening of the new toll plaza on SR 836 at 97<sup>th</sup> Avenue, as well as the new tolling points on the SR 836 137<sup>th</sup> Avenue

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Management's Discussion and Analysis (continued)

Years Ended June 30, 2009 and 2008

Extension, partially offset by a decrease in traffic and revenue on the SR 836 17<sup>th</sup> Avenue and SR 924 plazas.



### **Operating Expenses**

Total operating expenses were \$55.7 million and \$49.7 million for fiscal years 2009 and 2008, respectively. Operating expenses increased \$6.0 million or 12.1% over fiscal year 2008, compared to an increase of \$8.4 million or 20.2% over fiscal year 2007.

#### **Operations**

Operations expenses were \$22.5 million and \$20.1 million for fiscal years 2009 and 2008, respectively. In fiscal year 2009, operations increased \$2.5 million or 12.4% due to Florida Department of Transportation (FDOT) pass-through charges of \$2.6 million, partially offset by a decrease in MDX Operations and Maintenance contract (MOMC) toll personnel costs of \$170,000.

Operations expenses were \$20.1 million and \$16.3 million for fiscal years 2008 and 2007, respectively. In fiscal year 2008, operations increased \$3.7 million or 22.7% due to first year Traffic Management Center (TMC) costs of \$900,000; Florida Department of Transportation (FDOT) pass-through charges of \$900,000; and an increase of \$1.9 million due to MDX Operations and Maintenance contract (MOMC) toll personnel at the new 97<sup>th</sup> Avenue plazas.

#### **Maintenance**

Maintenance expenses were \$4.6 million and \$3.9 million for fiscal years 2009 and 2008, respectively. In fiscal year 2009, maintenance increased \$700,000 or 17.8% due to a new asset management contract with additional costs of \$530,000; general engineering consultant support cost of \$190,000, and structural inspection costs of 180,000, partially offset by a decrease in combined periodic, landscape and right-of-way maintenance costs of \$200,000.

Maintenance expenses were \$3.9 million and \$7.3 million for fiscal years 2008 and 2007, respectively. In fiscal year 2008, maintenance decreased \$3.4 million or 46.8% due to hurricane expenditures incurred in fiscal year 2008 of \$4.1 million, partially offset by an increase in periodic

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Management's Discussion and Analysis (continued)

Years Ended June 30, 2009 and 2008

maintenance costs of \$270,000 and \$430,000 relating to additional services and contract escalation costs for roadway/plaza maintenance.

**Contracted Services**

Contracted services were \$2.3 million and \$2.3 million for fiscal years 2009 and 2008, respectively. In fiscal year 2009, contracted services increased \$60,000 or 2.6% due to an increase in federal advocacy services of \$100,000; public communications costs of \$85,000; financial advisor and accounting fees of \$40,000; indirect cost allocation of \$30,000 and security guard services of \$15,000, partially offset by decreases in general engineering consultant costs of \$75,000; legal fees of \$55,000; IT support services of \$35,000; traffic and revenue consulting costs of \$35,000, and recruitment services of \$10,000.

Contracted services were \$2.3 million and \$2.5 million for fiscal years 2008 and 2007, respectively. In fiscal year 2008, contracted services decreased \$200,000 or 8.0% due to a decrease in public communications costs of \$850,000 and general engineering consultant costs of \$75,000, partially offset by increases in security guard services of \$40,000; legal fees of \$20,000; and an increase of \$665,000 for indirect cost allocation.

**Administration**

Administration expenses were \$5.1 million and \$3.3 million for fiscal years 2009 and 2008, respectively. In fiscal year 2009, administration expenses increased \$1.8 million or 55.9% due to an increase in the SunPass subsidy of \$1.9 million, partially offset by a decrease in combined office administration expenses of \$100,000.

Administration expenses were \$3.3 million and \$3.3 million for fiscal years 2008 and 2009, respectively. In fiscal year 2008, administration expenses decreased \$65,000 or 2.0% due to a decrease in SunPass discount subsidies and initiatives of \$520,000, partially offset by an increase in salaries, taxes and benefits of \$400,000 and small business outreach assistance of \$55,000.

**Depreciation & Amortization**

Total depreciation and amortization were \$21.1 million and \$20.2 million for fiscal years 2009 and 2008, respectively. Depreciation and amortization for fiscal year 2009 decreased \$1.0 million over fiscal year 2008, compared to an \$8.3 million increase over fiscal year 2007. The decrease for fiscal year 2009 was due to a decrease of \$1.9 million in right-to-operate costs no longer amortized, partially offset by an increase in depreciation of \$900,000 for assets placed in service. The increase for fiscal year 2008 was due to depreciation for assets placed in service.

**Non-Operating Revenue**

Investment income was \$13.9 million and \$20.6 million for fiscal years 2009 and 2008, respectively. Investment income for fiscal year 2009 decreased \$6.8 million or 32.8% from fiscal year 2008, compared to a decrease of \$2.7 million or 11.7% over fiscal year 2007. In fiscal year 2009 and 2008, the decreases were due to lower reinvestment yields on investments and lower availability of funds due to increased construction spending.

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Management's Discussion and Analysis (continued)

Years Ended June 30, 2009 and 2008

**Non-operating Expenses**

Interest expense was \$25.8 million and \$31.3 million for fiscal years 2009 and 2008, respectively. Interest expense for fiscal year 2009 decreased \$5.5 million or 17.6% over fiscal year 2008, compared to an increase of \$1.5 million or 5.2% over fiscal year 2007. For fiscal year 2009, the decrease was primarily due to \$1.4 million of additional interest capitalized, \$1 million of lower arbitrage expense, and elimination of dealer/broker fees of \$860,000 due to the private placement of the Series 2004A and 2005 Bonds.

For fiscal year 2008, the increase was primarily due to the impact of auction rate crisis on the Bond Series 2004A and 2005, which increased approximately \$3.9 million. In addition there was an increase of \$3.3 million due to the first full year of interest payments on Bond Series 2006. The increases were offset by a decrease of \$3.1 million due to the cash settlement swap payment in 2008, a decrease in arbitrage expense of \$800,000, increase in capitalized interest of 1.4 million, and decreases in interest expense related to other existing bond series.

Disposal of assets were \$135,000 and \$30,000 for fiscal years 2009 and 2008, respectively. In fiscal year 2009 the Authority disposed of \$40,000 in roadway infrastructure; \$40,000 in bridges; \$25,000 for a vehicle trade-in; \$15,000 in signage; and \$10,000 in sub-grade. In fiscal year 2008 the Authority disposed of \$30,000 in headquarter equipment after a partial hardware upgrade.

**Debt Service Reserve Fund**

The Authority's debt service reserve (DSR) fund requirement is an amount equal to the lesser of the maximum annual principal and interest payments on all the bonds or 125% of the average annual debt service requirement or 10% of the proceeds of the bonds.

The Authority utilizes the maximum annual principal and interest payment requirement to calculate its DSR requirement. The DSR fund balance as of June 30, 2009 was \$70.7 million comprised entirely of invested cash.

Prior to fiscal year 2009, the DSR funding was satisfied through a combination of invested cash and bond insurers' policies. The policies were issued by two bond insurers, Ambac Assurance in the amount of \$37.0 million and Financial Guaranty of \$17.6 million, totaling \$54.6 million.

Under the Authority's Trust Indenture requirements, bond insurers' policies must maintain its AAA rating. In the event of a downgrade, the Authority has the option of replacing the policies or cash funding over a 5 year period. However, once the rating falls below the A category, the Authority would be required to replace or cash fund within one year of the downgrade.

The weakened financial position of insurers led to the requirement of the Authority to replace the policies or cash fund. Given the current financial market environment and volatility surrounding the bond insurers' rating, the Authority opted to cash fund the DSR fund. The Authority was able to satisfy the DSR fund due to the bond insurers rating downgrade through General Fund reserves and transferring unspent bond proceeds as legally eligible. As of June 30, 2009, the DSR funding requirement was satisfied and complies with the Trust Indenture.

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Management's Discussion and Analysis (continued)

Years Ended June 30, 2009 and 2008

**Debt Ratios**

The Authority's senior debt service ratio for all bonds outstanding was 1.73 in fiscal year 2009, 1.90 in fiscal year 2008, and 2.47 in fiscal year 2007. The Authority's ratio of net revenue to total debt service and fund payments was 1.34 in fiscal year 2009, 1.30 in fiscal year 2008, and 2.01 in fiscal year 2007.

| (In Thousands)     |                       |                       |                     |                    |                           |                             |
|--------------------|-----------------------|-----------------------|---------------------|--------------------|---------------------------|-----------------------------|
| <b>Fiscal Year</b> | <b>Total Revenues</b> | <b>Total Expenses</b> | <b>Net Revenues</b> | <b>Senior Debt</b> | <b>Total Debt/Funding</b> | <b>Senior Debt Coverage</b> |
| 2009               | \$ 129,088            | \$ 34,578             | \$ 94,510           | \$ 54,505          | \$ 70,710                 | 1.73                        |
| 2008               | 136,667               | 29,512                | 107,155             | 56,458             | 82,425                    | 1.90                        |
| 2007               | 109,905               | 29,495                | 80,410              | 32,518             | 39,912                    | 2.47                        |

In fiscal year 2009, the senior debt service ratio was lower than fiscal year 2008 due to a decrease in toll revenue of \$2.7 million or 2.4%, resulting from a down turn in traffic volume; investment income decrease of \$6.8 million or 32.8% due to lower funding on hand, as construction spending increased during the fiscal year and lower reinvestment yields; and an increase in total expenses due mainly from pass thru charges for Sun Pass.

The Authority's total debt service in fiscal year 2009 of 1.34 was negatively impacted by funding an additional \$2.9 million to satisfy the debt service reserve fund requirement in response to the bond insurers' policies rating downgrade.

In fiscal year 2008 the senior debt service ratio was lower than fiscal year 2007 mainly due to an increase in interest and principle payments of \$23.9 million.

Also impacting the Authority's total debt service in fiscal year 2008 was the funding of the debt service reserve funding of \$10 million in response to bond insurers' policies rating downgrade.

**Overall Financial Position**

The Authority change in net assets was \$47.7 million in fiscal year 2009 compared to \$56.6 million in fiscal year 2008. The Authority's expressway system maintained a steady level of traffic in fiscal year 2009 with a minimal impact resulting from the on-going economic conditions. Overall traffic from fiscal year 2009, compared to fiscal year 2008, decreased less than 3%. Total expenses for fiscal year 2009, was \$7.8 million below budget.

Even with economic challenges, the Authority's Expressway System continues to perform relatively well when compared to its forecast and traffic trends in other areas of the state.

**Requests for Information**

This financial report is designed to provide a general overview of the Authority's finances for all those with an interest in its finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Chief Financial Officer, Miami Dade Expressway Authority, 3790 N.W. 21<sup>st</sup> Street, Miami, FL 33142.

**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Statements of Net Assets

June 30, 2009 and 2008

|                                                      | <u>2009</u>             | <u>2008</u>             |
|------------------------------------------------------|-------------------------|-------------------------|
| <b>ASSETS</b>                                        |                         |                         |
| <b>CURRENT ASSETS:</b>                               |                         |                         |
| Cash and cash equivalents                            | \$ 535,786              | \$ 2,871,571            |
| Restricted cash and cash equivalents                 | 489,677                 | 472,449                 |
| Cash and cash equivalents held by trustee            | 24,648,356              | 11,556,978              |
| Restricted cash and cash equivalents held by trustee | 45,661,190              | 36,328,900              |
| Investments held by trustee                          | 22,118,125              | 29,371,462              |
| Accounts receivable, net                             | 2,129,080               | 1,854,765               |
| Accrued interest receivable                          | 5,072,476               | 5,009,671               |
| Prepaid operating and maintenance cost               | 787,455                 | 805,272                 |
| Total current assets                                 | <u>101,442,145</u>      | <u>88,271,068</u>       |
| <b>RESTRICTED NON-CURRENT ASSETS:</b>                |                         |                         |
| Restricted cash and cash equivalents held by trustee | 36,369,496              | 63,322,703              |
| Restricted investments held by trustee               | 248,221,056             | 295,832,513             |
| Total restricted non-current assets                  | <u>284,590,552</u>      | <u>359,155,216</u>      |
| <b>CAPITAL ASSETS:</b>                               |                         |                         |
| Non-depreciable capital assets:                      |                         |                         |
| Rights to operate the system                         | 76,644,762              | 76,645,605              |
| Land                                                 | 250,621,556             | 241,303,659             |
| Construction in progress                             | 280,062,983             | 214,052,177             |
| Total non-depreciable capital assets                 | 607,329,301             | 532,001,441             |
| Depreciable capital assets, net                      | <u>342,030,178</u>      | <u>313,451,523</u>      |
| Total capital assets, net                            | <u>949,359,479</u>      | <u>845,452,964</u>      |
| <b>OTHER ASSETS:</b>                                 |                         |                         |
| Unamortized bond issuance costs, net                 | 13,859,044              | 14,709,757              |
| Total other assets                                   | <u>13,859,044</u>       | <u>14,709,757</u>       |
| Total non-current assets                             | <u>1,247,809,075</u>    | <u>1,219,317,937</u>    |
| <b>TOTAL ASSETS</b>                                  | <u>\$ 1,349,251,220</u> | <u>\$ 1,307,589,005</u> |

(Continued)

See accompanying notes to financial statements.

**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Statements of Net Assets

June 30, 2009 and 2008

|                                                                                           | <u>2009</u>           | <u>2008</u>           |
|-------------------------------------------------------------------------------------------|-----------------------|-----------------------|
| <b>LIABILITIES AND NET ASSETS</b>                                                         |                       |                       |
| <b>CURRENT LIABILITIES:</b>                                                               |                       |                       |
| Accounts and contracts payable                                                            | \$ 19,172,913         | \$ 13,577,080         |
| Accrued expenses                                                                          | 2,816,483             | 2,283,026             |
| Accrued interest                                                                          | 17,302,753            | 17,748,059            |
| Current portion of revenue bonds payable                                                  | 7,911,666             | 7,536,666             |
| Current portion of loans due to other governments                                         | 6,168,084             | 8,668,084             |
|                                                                                           | <u>53,371,899</u>     | <u>49,812,915</u>     |
| <b>NON-CURRENT LIABILITIES:</b>                                                           |                       |                       |
| Revenue bonds payable, net of current portion,<br>bond discount/premium and deferred cost | 925,173,039           | 933,070,484           |
| Loans due to other governments, net of current portion                                    | 41,224,910            | 42,393,581            |
| Arbitrage rebates payable                                                                 | 1,352,552             | 1,918,430             |
|                                                                                           | <u>967,750,501</u>    | <u>977,382,495</u>    |
| <b>TOTAL LIABILITIES</b>                                                                  | <u>1,021,122,400</u>  | <u>1,027,195,410</u>  |
| <b>NET ASSETS:</b>                                                                        |                       |                       |
| Invested in capital assets, net of related debt                                           | 122,025,879           | 132,568,036           |
| Restricted for debt service                                                               | 95,236,431            | 46,561,365            |
| Restricted for renewal and replacement                                                    | 12,106,813            | 7,853,838             |
| Unrestricted                                                                              | 98,759,697            | 93,410,356            |
| <b>TOTAL NET ASSETS</b>                                                                   | <u>\$ 328,128,820</u> | <u>\$ 280,393,595</u> |

(Concluded)

See accompanying notes to financial statements.



**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Statements of Revenues, Expenses and Changes in Net Assets

Years Ended June 30, 2009 and 2008

|                                                     | <u>2009</u>           | <u>2008</u>           |
|-----------------------------------------------------|-----------------------|-----------------------|
| OPERATING REVENUES:                                 |                       |                       |
| Toll revenues                                       | \$ 113,075,908        | \$ 115,799,343        |
| Other                                               | <u>788,848</u>        | <u>935,041</u>        |
| Total operating revenues                            | <u>113,864,756</u>    | <u>116,734,384</u>    |
| OPERATING EXPENSES:                                 |                       |                       |
| Operations and maintenance expenses                 | 27,134,807            | 23,961,384            |
| Contracted services                                 | 2,333,039             | 2,273,131             |
| Administration                                      | 5,109,501             | 3,277,371             |
| Depreciation and amortization                       | <u>21,120,020</u>     | <u>20,171,593</u>     |
| Total operating expenses                            | <u>55,697,367</u>     | <u>49,683,479</u>     |
| Operating income                                    | <u>58,167,389</u>     | <u>67,050,905</u>     |
| NONOPERATING REVENUES (EXPENSES):                   |                       |                       |
| Investment income                                   | 13,875,924            | 20,641,181            |
| Interest expense                                    | (25,810,400)          | (31,321,635)          |
| Federal grant - FHWA                                | —                     | 48,000                |
| Disposal of assets                                  | <u>(134,264)</u>      | <u>(30,964)</u>       |
| Total nonoperating revenues (expenses) - net        | <u>(12,068,740)</u>   | <u>(10,663,418)</u>   |
| Income before contributions for capital projects    | <u>46,098,649</u>     | <u>56,387,487</u>     |
| Contributions for capital projects                  | <u>1,636,576</u>      | <u>246,498</u>        |
| CHANGE IN NET ASSETS                                | <u>47,735,225</u>     | <u>56,633,985</u>     |
| NET ASSETS, BEGINNING OF YEAR                       | 280,393,595           | 203,534,752           |
| ADJUSTMENT FOR GASB STATEMENT NO. 51 IMPLEMENTATION | <u>—</u>              | <u>20,224,858</u>     |
| ADJUSTED NET ASSETS, BEGINNING OF YEAR              | <u>280,393,595</u>    | <u>223,759,610</u>    |
| NET ASSETS, END OF YEAR                             | <u>\$ 328,128,820</u> | <u>\$ 280,393,595</u> |

See accompanying notes to financial statements.

**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY**  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Statements of Cash Flows

Years Ended June 30, 2009 and 2008

|                                                                                         | <u>2009</u>           | <u>2008</u>           |
|-----------------------------------------------------------------------------------------|-----------------------|-----------------------|
| <b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>                                            |                       |                       |
| Cash received from customers                                                            | \$ 112,764,545        | \$ 116,220,657        |
| Payments to suppliers                                                                   | (28,177,161)          | (28,843,321)          |
| Payments to employees                                                                   | (7,155,008)           | (4,943,129)           |
| Other operating revenues                                                                | 1,321,681             | 494,516               |
| Net cash flows provided by operating activities                                         | <u>78,754,057</u>     | <u>82,928,723</u>     |
| <b>CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:</b>                                 | <u>—</u>              | <u>—</u>              |
| <b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</b>                        |                       |                       |
| Acquisition and construction of capital assets                                          | (95,472,982)          | (85,494,649)          |
| Proceeds on joint participation construction of capital assets                          | 94,037                | 2,448,321             |
| Acquisition of land                                                                     | (1,390,366)           | (2,699,355)           |
| Proceeds from government advances                                                       | 5,000,000             | 1,500,000             |
| Payment of principal on government advances                                             | (8,668,084)           | (11,668,084)          |
| Proceeds from capital contributions - Federal                                           | 1,173,683             | 4,801,122             |
| Payment of bond issuance/conversion costs                                               | (5,444)               | (264,380)             |
| Payment of principal on revenue bonds                                                   | (7,536,666)           | (7,161,667)           |
| Interest paid on revenue bonds                                                          | (47,473,245)          | (48,942,263)          |
| Net cash flows (used by) capital and related financing activities                       | <u>(154,279,067)</u>  | <u>(147,480,955)</u>  |
| <b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>                                            |                       |                       |
| Purchase of investments                                                                 | (218,539,037)         | (226,219,435)         |
| Proceeds from investments                                                               | 273,692,490           | 227,483,732           |
| Interest & dividends received                                                           | 13,523,460            | 20,227,223            |
| Net cash provided by investing activities                                               | <u>68,676,913</u>     | <u>21,491,520</u>     |
| <b>NET (DECREASE) IN CASH AND CASH EQUIVALENTS</b>                                      | (6,848,097)           | (43,060,712)          |
| Cash and cash equivalents at beginning of year                                          | <u>114,552,601</u>    | <u>157,613,313</u>    |
| Cash and cash equivalents at end of year:                                               | \$ <u>107,704,504</u> | \$ <u>114,552,601</u> |
| Unrestricted                                                                            | 25,184,141            | 14,428,549            |
| Restricted                                                                              | <u>82,520,363</u>     | <u>100,124,052</u>    |
|                                                                                         | \$ <u>107,704,504</u> | \$ <u>114,552,601</u> |
| <b>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</b> |                       |                       |
| Operating income                                                                        | \$ 58,167,389         | \$ 67,050,905         |
| Adjustments to reconcile operating income to net cash provided by operating activities: |                       |                       |
| Depreciation and amortization                                                           | 21,120,020            | 20,171,593            |
| Changes in assets and liabilities:                                                      |                       |                       |
| Accounts receivable                                                                     | 186,912               | (102,280)             |
| Unearned other revenue                                                                  | 34,559                | 83,069                |
| Prepaid operating and maintenance cost                                                  | 17,817                | (86,534)              |
| Accounts/contracts payable and accrued expenses                                         | (772,640)             | (4,188,030)           |
| <b>NET CASH PROVIDED BY OPERATING ACTIVITIES</b>                                        | \$ <u>78,754,057</u>  | \$ <u>82,928,723</u>  |
| <b>NONCASH INVESTING, CAPITAL, AND FINANCING ACTIVITIES:</b>                            |                       |                       |
| Increase in fair value of investments                                                   | \$ <u>289,659</u>     | \$ <u>538,095</u>     |

See accompanying notes to financial statements.

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX

Notes to Financial Statements  
Years Ended June 30, 2009 and 2008

**Note 1 - Summary of Organization and Significant Accounting Policies**

**(a) *Organization and Purpose***

The Miami-Dade County Expressway Authority d/b/a Miami-Dade Expressway Authority and MDX (the “Authority”) is an agency of the State of Florida, a body politic and corporate and a public instrumentality, and was created on December 13, 1994 pursuant to Chapter 348, Part I, Florida Statutes, as amended, for the purposes and having the powers, among others, to (1) acquire, hold, construct, improve, maintain, operate, own and lease an expressway system located in Miami-Dade County, Florida (the “County”); and (2) to fix, alter, change, establish and collect tolls, rates, fees, rentals, and other charges for the services and facilities of such system. The governing body of the Authority consists of thirteen (13) members. All members of the Authority are voting members, except for the secretary of the Florida Department of Transportation (“FDOT”). Seven members are appointed by the governing body of the County. At the County’s discretion, up to two of the members appointed by the governing body of the County may be elected officials residing in the County. Five members are appointed by the Governor of the State of Florida. One member is the District Secretary of the State of Florida Department of Transportation – District VI. This member is an ex officio voting member of the Authority. Except for the District Secretary of the State of Florida Department of Transportation – District VI, all members must be residents of the County. Members of the Authority are entitled to receive from the Authority their travel and other necessary expenses incurred in connection with the business of the Authority as provided by law, but they may not draw salaries or other compensation.

The State of Florida’s expressway system, located in the boundaries of the County (the expressway system), was operated by the State of Florida, Department of Transportation (“FDOT”) through December 9, 1996. Effective December 10, 1996 and pursuant to a Transfer Agreement (the “Transfer Agreement”) entered into between the Authority and the FDOT, the Authority assumed the rights and the responsibilities for operating the expressway system and obtained certain identifiable capital assets (excluding the expressway system’s infrastructure) and cash reserves from the FDOT. In exchange, the Authority made a payment to the FDOT which was sufficient to defease certain bonded indebtedness of the State of Florida. This transaction was consummated through the Authority’s issuance of \$80,000,000 in aggregate principal amount of its Toll System Revenue Bonds, Series 1996 (Taxable) (the Series 1996 Bonds). In addition, the Authority assumed a liability from the State of Florida in the amount of \$11,843,000 which has been paid in full.

The Transfer Agreement gives the Authority the right, in perpetuity, to the toll revenue generated by the expressway system and grants the Authority the right to operate and maintain such expressway system.

Since fiscal year 2008, pursuant to section 20.23(2) 8, Florida Statutes, all toll authorities are subject to the oversight of the Florida Transportation Commission (FTC). The Authority’s performance is monitored and tracked by the FTC for compliance with performance measures that establish best practices across the transportation industry. The Authority is required to meet annual reporting requirements as prescribed by the FTC.

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

**(b) Reporting Entity**

As a special purpose government engaged solely in business-type activities, the Authority's financial statements are prepared similarly to those of an Enterprise Fund, a type of Proprietary Fund. Proprietary Funds are used to account for operations of governmental entities that are financed and operated in a manner similar to private business enterprises; these funds use the accrual basis of accounting and the economic resources measurement focus. Enterprise Funds are used to account for operations where the intent of the governing body is that costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis are financed or recovered primarily through user charges.

**(c) Basis of Accounting**

The Authority is accounted for on the flow of economic resources measurement focus and, therefore, prepares its financial statements on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America. The accounting for enterprise funds is similar to those for private business enterprises. Accordingly, revenue is recorded when earned and expenses are recorded when incurred.

The assets, liabilities and net assets of the Authority are reported in a self balancing set of accounts which include restricted and unrestricted resources, representing funds available for support of the Authority's operations.

Equity is classified as net assets and displayed in three components:

Invested in capital assets, net of related debt – capital assets, including restricted capital assets, net of accumulated depreciation and reduced by outstanding balances of any bonds or other borrowings that are attributable to the acquisition, construction or improvement of those assets.

Restricted net assets – net assets with constraints placed on the 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. This includes net assets restricted for debt service and renewal and replacement.

Unrestricted net assets – all other net assets that do not meet the definition of “invested in capital assets, net of related debt” and “restricted net assets”.

The Authority defines operating revenue as revenues earned from the expressway system operations and charged to customers. The principal operating revenues of the Authority are toll collections. Under the Authority's Trust Indenture all net revenues are pledged to repay principal and interest of outstanding bonds. Nonoperating revenue includes interest and dividend earnings and all other income not meeting the previous definition.

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

The Authority defines operating expenses as expenses incurred for operations, maintenance and administration, as well as depreciation and amortization. Nonoperating expenses include interest expense and all other expenses not meeting the previous definition.

Governmental Accounting Standards Board (GASB) Statement No. 20, *Accounting and Financial Reporting for Proprietary Funds and Other Governmental Entities that use Proprietary Fund Accounting*, offers the option of following all Financial Accounting Standards Board (FASB) standards issued after November 30, 1989, unless they conflict with or contradict GASB pronouncements, or not following FASB standards issued after such date. The Authority elected the option not to follow FASB standards issued after November 30, 1989.

**(d) Restricted Assets**

Restricted assets of the Authority represent bond proceeds and revenue to be set aside per the Trust Indenture which requires the following funds: Revenue Fund, Sinking Fund, General Fund (partially restricted), Rate Stabilization Fund, Debt Service Reserve Fund, Renewal and Replacement Fund, Cost of Issuance Fund, Construction Fund and Rebate Fund.

**(e) Capital Assets**

The Authority does not have title to the expressway system's infrastructure and, therefore, it is not reflected in these financial statements. The title to these assets continues to be held by the State of Florida. The Authority gained use of the assets through a Right to Operate agreement. For more information on the Rights to Operate, see Note 4. Capital assets acquired through the Transfer Agreement as well as capital assets acquired or constructed since the transfer is recorded at historical cost. Expenses incurred to acquire additional capital assets which replace existing assets or otherwise prolong their useful lives are capitalized. The Authority's capitalization policy requires a \$2,000 threshold.

Right-of-way acquisition costs are considered land when incurred. All other costs related to land, such as road sub base, grading, land clearing, embankments, and other related costs, are considered non-depreciable assets and remain in construction in progress until the project is completed.

Interest costs incurred during construction are capitalized on assets acquired with debt. Amounts capitalized represent interest expense incurred from the borrowing date to completion of the project, offset with interest earned on invested proceeds over the same period. Depreciation of property and equipment is computed using the straight line method over the estimated useful lives of the assets as follows:

|                                                       |            |
|-------------------------------------------------------|------------|
| Furniture and fixtures                                | 7 years    |
| Equipment and improvements                            | 7-15 years |
| Asphalt                                               | 5-15 years |
| Buildings, toll facilities and leasehold improvements | 7-30 years |

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

|                                  |            |
|----------------------------------|------------|
| Bridges and other roadway assets | 7-50 years |
| Vehicles                         | 5 years    |
| Software                         | 3 years    |

**(f) Bond Discounts, Bond Premiums and Issuance Costs**

Bond discounts, premiums and issuance costs associated with the issuance of bonds are amortized either on a straight line basis or the interest method over the life of the bonds. Bond discounts and premiums are presented as an addition to and a reduction of, respectively, the face amount of revenue bonds payable, whereas issuance costs are recorded as other assets.

**(g) Compensated Absences**

The Authority accounts for compensated absences by accruing a liability for employees' compensation for future absences according to the guidelines of Governmental Accounting Standards Board (GASB) Statement No. 16, *Accounting for Compensated Absences*. The Authority's vacation and sick leave accrual policies grant a specific number of days of vacation and sick leave with pay. In addition, these policies provide for paying a regular employee their accumulated unused vacation upon termination which is limited to a maximum of 480 hours. These policies also provide for accumulated sick leave hours to be paid upon separation from the Authority after 10 years or more of continuous service which is limited to a maximum of one quarter of the amounts accumulated, up to 480 hours. These hours are payable at the employees' current rate. All available vacation leave hours and one quarter of available sick leave hours for eligible employees as of June 30, 2009, are accrued and accounted for in payables due to employees.

For a more detailed description on accrued amounts, see Note 3 "Receivables and Payables" in the Notes to the Financial Statements.

**(h) Employee Benefits**

As an agency of the State of Florida, the Authority's employees are allowed to participate in the State's group health insurance plan under the same program and group rates available to State employees. All regular full-time employees are eligible for group insurance coverage on the first day of the month following active service. In addition, in accordance with an interlocal agreement between the Authority and the County, the Authority's employees are allowed to participate in the County's group dental and life insurance program under the same providers and group rates available to County employees. All regular full-time employees are eligible for group insurance coverage on the first day of the month following or coincident to 90 days of continuous active service.

GASB Statement No. 45, Financial Reporting for Postemployment Benefits Other Than Pensions, addresses the accounting and reporting requirements for costs and obligations resulting from post employment healthcare and other non-pension benefits. It establishes uniform financial reporting standards for Other Post Employment Benefits (OPEB) plans.

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

This Statement did not have an impact on the Authority's financial statements, including required disclosures.

**(i) 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, and natural disasters for which the Authority carries commercial insurance. The Authority had no claims in the last two years that exceeded its policy limits.

**(j) Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America 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 revenue and expenses during the reporting period. Actual results could differ from those estimates.

**(k) Cash and Cash Equivalents and Investments**

The book value of the Authority's cash balances was \$107,704,504 and \$114,552,601 and the bank balance was \$107,731,423 and \$115,839,079 at June 30, 2009 and 2008, respectively. The difference between these two balances is created by timing differences due to the float on disbursements and deposits which have not yet cleared the bank and cash in transit.

The Authority considers highly liquid debt instruments (including restricted assets), with an original maturity of three months or less, to be cash equivalents.

The investments of the Authority consist of restricted and unrestricted investments and are stated at fair value, which is either a quoted market price or the best available estimate. Unrealized gains or losses due to variations in fair value are recorded as income or charged to operations for the applicable year in accordance with Governmental Accounting Standards Board (GASB) Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investments Pool*.

**(l) Reclassifications**

Certain prior year amounts have been reclassified to conform to the current year's presentation.

**(m) Single Audit**

The Authority is subject to a Single Audit that is not included in this Comprehensive Annual Financial Report. The Single Audit requires the independent auditor to report on the fair presentation of the financial statements and also on the internal controls and compliance with legal requirements, with emphasis on the administration of federal and state assistance. The results of the Single Audit are available as a separate annual financial report.

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

**Note 2 – Cash, Cash Equivalents and Investments**

**Deposits**

Under Chapter 280 Florida Statutes, as amended, “Florida Security for Public Deposits Act,” all qualified public depositories are required to pledge eligible collateral having a market value equal to or greater than the average daily or monthly balance of all public deposits times the depository’s collateral pledging level. The pledging level may range from 50% to 125% depending upon the depository’s financial condition and establishment period. All collateral must be deposited with an approved financial institution. Any losses to public depositors are covered by applicable deposit insurance, sale of securities pledged as collateral and, if necessary, assessments against other qualified public depositories of the same type as the depository in default.

Exempt from Chapter 280 are public deposits deposited in a bank or savings association by a trust department or trust company which are fully secured through the trust business laws, public deposits held outside the United States of America, wire transfers and transfers of funds for periods less than seven days for the purpose of paying registrars and paying agents. Investments, including State Board of Administration accounts and repurchase agreements, are not public deposits. At June 30, 2009, all of the Authority’s bank deposits were in qualified public depositories and trust companies and as such the deposits are not exposed to custodial credit risks.

At June 30, 2009 and 2008, total unrestricted and restricted cash and cash equivalents and investments were comprised of the following:

|                             | <b>2009</b>           | <b>2008</b>           |
|-----------------------------|-----------------------|-----------------------|
| Cash deposits               | \$ 535,786            | \$ 2,871,571          |
| Cash equivalents            | 24,648,356            | 11,556,978            |
| Restricted cash deposits    | 489,677               | 7,972,449             |
| Restricted cash equivalents | 82,030,686            | 92,151,603            |
| Investments                 | 22,118,125            | 29,371,462            |
| Restricted investments      | 248,221,056           | 295,832,513           |
|                             | <u>\$ 378,043,686</u> | <u>\$ 439,756,576</u> |

**Investments and Cash Equivalents**

The State of Florida allows investments in Local Government Surplus Fund Trust Fund, direct investment in U.S. government, federal agency, and instrumentality obligations at a price not to exceed the market price at the time of purchase, Securities and Exchange Commission registered money markets funds, and Commercial Paper with highest quality rating from a nationally recognized rating agency, and other investments by law or by resolution of the Authority.

On February 14, 2000, the Authority entered into a Flexible Repurchase (GIC) Agreement with J.P. Morgan Securities Inc. whereby the Authority invested \$10,515,000, a portion of the funds from the Series 2000 Bond proceeds. The interest rate for the GIC is fixed at 7.18% and the final maturity



**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY**  
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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

date is February 1, 2010. The interest earned on the GIC is reinvested in the principal balance. As of June 30, 2009 and 2008, the principal balance on the GIC was \$12,105,896 and \$11,285,701, respectively.

On December 6, 2006, the Authority entered into a Flexible Repurchase ("Flex Repo") Agreement with Royal Bank of Canada, New York Branch, whereby the Authority invested \$175,000,000, a portion of the funds from the Series 2006 Bond proceeds. The interest rate for the Flex Repo is fixed at 4.918% and the final maturity date is December 1, 2009. The interest earned on the Flex Repo is reinvested in the principal balance. As of June 30, 2009 and 2008 the principal balance on the Flex Repo was \$188,068,068 and \$179,149,189 respectively.

Under the Flex Repo, the Authority is permitted to withdraw funds for capital expenditures as the need arises; remaining funds are returned at the final maturity. Both agreements, at a minimum, are 100% collateralized by AAA/Aaa rated U.S. Government Agency securities.

As of June 30, 2009 and 2008, investments by issuer and type are as follows:

|                                                      | 2009                  |               | 2008                  |               |
|------------------------------------------------------|-----------------------|---------------|-----------------------|---------------|
|                                                      | Fair Value            | Percent       | Fair Value            | Percent       |
| AIM Short Term Treasury Institutional (money market) | \$ 22,008             | 0.0%          | \$ 69,239,963         | 16.1%         |
| Goldman Sachs Financial Square Fund (money market)   | 97,931,173            | 26.0%         | 34,468,618            | 8.0%          |
| Dreyfus Prime (money market)                         | 1,170,861             | 0.3%          | -                     | 0.0%          |
| CDARS Certificates of Deposit                        | 4,400,000             | 1.2%          | -                     | 0.0%          |
| Miami Dade Aviation Department Commercial Paper      | 7,555,000             | 2.0%          | -                     | 0.0%          |
| GE Capital Corp Commercial Paper                     | -                     | 0.0%          | 20,944,490            | 4.9%          |
| Toyota Motor Credit Commercial Paper                 | -                     | 0.0%          | 14,725,980            | 3.4%          |
| FCAR Owner Trust Corp Commercial paper               | -                     | 0.0%          | 12,423,888            | 2.9%          |
| American Express Credit Commercial Paper             | -                     | 0.0%          | 26,391,178            | 6.2%          |
| Federal Farm Credit Bank                             | 22,012,812            | 5.8%          | 21,143,273            | 4.9%          |
| Federal Home Loan Bank                               | 8,062,500             | 2.1%          | 19,578,281            | 4.6%          |
| Federal Home Loan Mortgage Corporation (FHLMC)       | 10,080,060            | 2.7%          | 14,532,307            | 3.4%          |
| Federal National Mortgage Association (FNMA)         | 25,609,844            | 6.8%          | 5,029,688             | 1.2%          |
| JP Morgan Repurchase Agreements                      | 12,105,896            | 3.2%          | 11,285,701            | 2.6%          |
| Royal Bank of Canada (Repurchase Agreement)          | 188,068,068           | 49.9%         | 179,149,189           | 41.8%         |
| Total                                                | <u>\$ 377,018,222</u> | <u>100.0%</u> | <u>\$ 428,912,556</u> | <u>100.0%</u> |

**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY**  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

As of June 30, 2009, the investment values are as follows:

|                                                     | <u>Investments Maturities (in years)</u> |                       |                      | <u>Ratings</u> |                |
|-----------------------------------------------------|------------------------------------------|-----------------------|----------------------|----------------|----------------|
|                                                     | <u>Fair Value</u>                        | <u>Less Than 1</u>    | <u>1-5</u>           | <u>S&amp;P</u> | <u>Moody's</u> |
| AIM Short Term Treasury Institutional(money market) | \$ 22,008                                | \$ 22,008             | \$ -                 | AAAm           | Aaa            |
| Goldman Sachs Financial Square Fund (money market)  | 97,931,173                               | 97,931,173            | -                    | AAAm           | Aaa            |
| Dreyfus Prime (money market)                        | 1,170,861                                | 1,170,861             | -                    | AAA            | Aaa            |
| CDARS Certificates of Deposit                       | 4,400,000                                | -                     | 4,400,000            | -              | -              |
| Miami Dade Aviation Department Commercial paper     | 7,555,000                                | 7,555,000             | -                    | AAA            | Aaa            |
| Federal Farm Credit Bank                            | 22,012,812                               | 14,048,125            | 7,964,687            | AAA            | Aaa            |
| Federal Home Loan Bank                              | 8,062,500                                | 8,062,500             | -                    | AAA            | Aaa            |
| Federal Home Loan Mortgage Corporation (FHLMC)      | 10,080,060                               | 5,071,915             | 5,008,145            | AAA            | Aaa            |
| Federal National Mortgage Association (FNMA)        | 25,609,844                               | -                     | 25,609,844           | AAA            | Aaa            |
| JP Morgan Repurchase Agreements                     | 12,105,896                               | 12,105,896            | -                    | -              | -              |
| Royal Bank of Canada (Repurchase Agreement)         | 188,068,068                              | 188,068,068           | -                    | -              | -              |
| Total                                               | <u>\$ 377,018,222</u>                    | <u>\$ 334,035,546</u> | <u>\$ 42,982,676</u> |                |                |

As of June 30, 2008, the investment values are as follows:

|                                                     | <u>Investments Maturities (in years)</u> |                       |                       | <u>Ratings</u> |                |
|-----------------------------------------------------|------------------------------------------|-----------------------|-----------------------|----------------|----------------|
|                                                     | <u>Fair Value</u>                        | <u>Less Than 1</u>    | <u>1-5</u>            | <u>S&amp;P</u> | <u>Moody's</u> |
| AIM Short Term Treasury Institutional(money market) | \$ 69,239,963                            | \$ 69,239,963         | \$ -                  | AAAm           | Aaa            |
| Goldman Sachs Financial Square Fund (money market)  | 34,468,618                               | 34,468,618            | -                     | AAAm           | Aaa            |
| GE Capital Corp Commercial Paper                    | 20,944,490                               | 20,944,490            | -                     | A-1+           | P-1            |
| Toyota Motor Credit Commercial Paper                | 14,725,980                               | 14,725,980            | -                     | A-1+           | P-1            |
| FCAR Owner Trust Corp Commercial paper              | 12,423,888                               | 12,423,888            | -                     | A-1+           | P-1            |
| American Express Credit Commercial Paper            | 26,391,178                               | 26,391,178            | -                     | A-1            | P-1            |
| Federal Farm Credit Bank                            | 21,143,273                               | 21,143,273            | -                     | AAA            | Aaa            |
| Federal Home Loan Bank                              | 19,578,281                               | 14,581,406            | 4,996,875             | AAA            | Aaa            |
| Federal Home Loan Mortgage Corporation (FHLMC)      | 14,532,307                               | -                     | 14,532,307            | AAA            | Aaa            |
| Federal National Mortgage Association (FNMA)        | 5,029,688                                | -                     | 5,029,688             | AAA            | Aaa            |
| JP Morgan Repurchase Agreements                     | 11,285,701                               | -                     | 11,285,701            | -              | -              |
| Royal Bank of Canada (Repurchase Agreement)         | 179,149,189                              | -                     | 179,149,189           | -              | -              |
| Total                                               | <u>\$ 428,912,556</u>                    | <u>\$ 213,918,796</u> | <u>\$ 214,993,760</u> |                |                |

*Interest Rate Risk* – In accordance with the Authority's investment policy, its portfolio is structured so that securities mature to meet the Authority's scheduled cash flow requirements, thereby, avoiding the need to sell securities prior to their scheduled maturity dates. The cash flow

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

requirement limits investment maturities as a means of managing the Authority's exposure to fair value losses arising from increasing interest rates.

*Credit Risk* – The Authority's investment policy is to apply the "prudent person" rule: investments are made as a prudent person would be expected to act, with discretion and intelligence, to seek reasonable income, preserve capital and avoid speculative investments. The Authority's investment policy limits investments of U.S. agencies to ratings of "A" or better by Moody's and S&P. Commercial Paper investments are limited to no more than 270 days rated at the time of purchase "P-1" by Moody's and "A-1" or better by S&P. Investments in repurchase agreements are limited to those collateralized by direct obligations, Government National Mortgage Association (GNMAs), FNMAs or FHLMCs with any registered broker/dealer subject to Securities Investors' Protection Corporation jurisdiction or any commercial bank insured by the Federal Deposit Insurance Corporation, if such broker/dealer or bank has an uninsured, unsecured and unguaranteed obligation rate "P-1" or "A3" or better by Moody's and "A-1" or "A-" or better by S&P. The Authority's investment policy allows investment in the Local Government Surplus Funds Trust Fund administered by the State Board of Administration of Florida.

*Concentration of Credit Risk* – The Authority places no limit on the amount the Authority may invest in any one issuer. More than 5% of the Authority's investments are in Government Sponsored Agency securities and Commercial Paper securities. These investments are 17% and 2%, respectively, of the Authority's total investments as of June 30, 2009; and 14% and 17 %, respectively, of the total investments as of June 30, 2008.

*Custodial Credit Risk – Investments* – For an investment, this is the risk that, in the event of the failure of the counterparty, the Authority will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. Investments are exposed to custodial credit risk if they are uninsured, are not registered in the Authority's name, and are held by either the counterparty to the investment purchase or are held by the counterparty's trust department or agent but not held in the Authority's name. None of the Authority's investments, as of June 30, 2009, were subject to custodial credit risk.

The Authority's investments are made in accordance with the Authority's Investment Policy which is based on Chapter 218.415, Florida Statutes (Local government investment policies).

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX

Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

**Note 3 - Receivables and Payables**

**Receivables**

As of June 30, 2009 and 2008, accounts receivable totaled \$2,129,080 and \$1,854,765, respectively, in the following categories:

|                               | <b>2009</b>         | <b>2008</b>         |
|-------------------------------|---------------------|---------------------|
| Toll revenue receivables      | \$ 1,260,603        | \$ 949,210          |
| Other receivables             | 54,492              | 61,352              |
| Grants receivable-FHWA        | 273,388             | 351,092             |
| Grants receivable-ITS         | 540,597             | -                   |
| FDOT operations & maintenance | -                   | 493,111             |
|                               | <u>\$ 2,129,080</u> | <u>\$ 1,854,765</u> |

As of June 30, 2009 and 2008, toll revenue receivables in the amount of \$1,260,603 and \$949,210, respectively, were primarily comprised of electronic toll revenues collected by SunPass.

As of June 30, 2009 and 2008, other receivables were primarily comprised of (a) costs related to the construction of a water and sewer main aerial crossing and lift station, due from the Miami-Dade County School Board of \$25,406 in both fiscal years, and (b) miscellaneous receivables of \$29,086 and \$35,946, respectively. Subsequent to year-end, the Authority received payment from the Miami-Dade County School Board for the outstanding receivable.

As of June 30, 2009 and 2008, FHWA grant receivable represented costs for repairs resulting from Hurricanes Wilma and Katrina, reimbursable from the Federal Highway Administration (FHWA), of \$273,388 and \$351,092, respectively. Subsequent to year-end, the Authority received payment from FHWA for the outstanding receivable.

As of June 30, 2009, ITS grant receivable represented reimbursable expenses related to the Intelligent Transportation System (ITS) Integration Joint Project Agreement executed on June 30, 2005 and further amended on December 21, 2006, and October 24, 2008, with the State of Florida Department of Transportation for the deployment of ITS on State Road (SR) 112, SR 924 and SR 874. Subsequent to year-end, the Authority received payment from the State of Florida for the outstanding receivable. As of June 30, 2009, there are remaining grant funds available of \$483,481.

As of June 30, 2008, FDOT operations & maintenance budget resulted in a credit of \$493,111 for excess payments throughout fiscal year 2008. The credit was applied to the total operating costs due to FDOT for fiscal year 2009.

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

**Payables**

As of June 30, 2009 and 2008, accounts/contracts and accrued expenses payable totaled \$39,292,149 and \$33,608,165, respectively, in the following categories:

|                  | <b>2009</b>          | <b>2008</b>          |
|------------------|----------------------|----------------------|
| Due to vendors   | \$ 20,346,871        | \$ 15,193,539        |
| Due to employees | 536,469              | 444,675              |
| Accrued interest | 17,302,753           | 17,748,059           |
| Due to FDOT      | 869,803              | -                    |
| Other            | 236,253              | 221,892              |
|                  | <u>\$ 39,292,149</u> | <u>\$ 33,608,165</u> |

As of June 30, 2009 and 2008, due to vendors was comprised of (a) capital construction costs, accrued expenses and retainage of \$15,679,167 and \$11,954,061, respectively, and (b) operating costs and accrued expenses of \$4,667,704 and \$3,239,478, respectively.

As of June 30, 2009, the payable to FDOT of \$869,803 is due to modification of the 2009 annual budget received from FDOT.

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**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY**  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

**Note 4 - Capital Assets**

A summary of capital assets activity and changes in accumulated depreciation for the years ended June 30, 2009 and 2008 follows:

|                                                        | Balance at June<br>30, 2008 | Additions      | Deletions    | Transfers    | Balance at<br>June 30, 2009 |
|--------------------------------------------------------|-----------------------------|----------------|--------------|--------------|-----------------------------|
| Capital assets not being depreciated:                  |                             |                |              |              |                             |
| Rights to operate the system                           | \$ 76,645,605               | \$ -           | \$ (843)     | \$ -         | \$ 76,644,762               |
| Land                                                   | 241,303,659                 | 1,390,366      | (143,723)    | 8,071,254    | 250,621,556                 |
| Construction in progress                               | 214,052,177                 | 122,678,547    | (42,854)     | (56,624,887) | 280,062,983                 |
| Total capital assets, not being depreciated            | 532,001,441                 | 124,068,913    | (187,420)    | (48,553,633) | 607,329,301                 |
| Capital assets being depreciated:                      |                             |                |              |              |                             |
| Furniture and fixtures                                 | 2,842,299                   | 23,445         | 3,786        | -            | 2,869,530                   |
| Equipment and improvements                             | 46,763,426                  | 172,284        | (2,333)      | 370,963      | 47,304,340                  |
| Buildings, toll facilities, and leasehold improvements | 51,001,704                  | 107,947        | 1,245        | -            | 51,110,896                  |
| Asphalt                                                | 52,466,604                  | -              | (15,325)     | 2,598,296    | 55,049,575                  |
| Bridges                                                | 118,292,853                 | -              | (40,818)     | 25,454,433   | 143,706,468                 |
| Other roadway assets                                   | 90,900,109                  | -              | (14,823)     | 20,129,941   | 111,015,227                 |
| Vehicles                                               | 409,158                     | 41,544         | (22,748)     | -            | 427,954                     |
| Total capital assets being depreciated                 | 362,676,153                 | 345,220        | (91,016)     | 48,553,633   | 411,483,990                 |
| Less accumulated depreciation for:                     |                             |                |              |              |                             |
| Furniture and fixtures                                 | (1,795,519)                 | (365,714)      | -            | -            | (2,161,233)                 |
| Equipment and improvements                             | (23,523,272)                | (6,863,531)    | 1,225        | -            | (30,385,578)                |
| Buildings, toll facilities, and leasehold improvements | (6,642,361)                 | (2,542,386)    | (5,383)      | -            | (9,190,130)                 |
| Asphalt                                                | (6,826,377)                 | (4,949,803)    | 2,462        | -            | (11,773,718)                |
| Bridges                                                | (4,609,575)                 | (2,940,458)    | 1,633        | -            | (7,548,400)                 |
| Other roadway assets                                   | (5,546,054)                 | (2,527,670)    | 717          | -            | (8,073,007)                 |
| Vehicles                                               | (281,472)                   | (63,023)       | 22,749       | -            | (321,746)                   |
| Total accumulated depreciation                         | (49,224,630)                | (20,252,585)   | 23,403       | -            | (69,453,812)                |
| Net depreciable capital assets                         | 313,451,523                 | (19,907,365)   | (67,613)     | 48,553,633   | 342,030,178                 |
| Net capital assets                                     | \$ 845,452,964              | \$ 104,161,548 | \$ (255,033) | \$ -         | \$ 949,359,479              |

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**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY**  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

|                                                        | Balance at June 30,<br>2007 | Additions     | Deletions   | Transfers     | Balance at<br>June 30, 2008 |
|--------------------------------------------------------|-----------------------------|---------------|-------------|---------------|-----------------------------|
| Capital assets not being depreciated:                  |                             |               |             |               |                             |
| Rights to operate the system                           | \$ 76,645,605               | \$ -          | \$ -        | \$ -          | \$ 76,645,605               |
| Land                                                   | 121,501,562                 | 2,699,355     | (21,000)    | 117,123,742   | 241,303,659                 |
| Construction in progress                               | 427,930,113                 | 89,036,311    | (28,269)    | (302,885,978) | 214,052,177                 |
| Total capital assets, not being depreciated            | 626,077,280                 | 91,735,666    | (49,269)    | (185,762,236) | 532,001,441                 |
| Capital assets being depreciated:                      |                             |               |             |               |                             |
| Furniture and fixtures                                 | 2,874,260                   | 6,913         | (50,629)    | 11,755        | 2,842,299                   |
| Equipment and improvements                             | 31,057,278                  | 18,330        | -           | 15,687,818    | 46,763,426                  |
| Buildings, toll facilities, and leasehold improvements | 25,077,106                  | 535,237       | -           | 25,389,361    | 51,001,704                  |
| Asphalt                                                | 14,696,878                  | -             | -           | 37,769,726    | 52,466,604                  |
| Bridges                                                | 46,557,745                  | -             | -           | 71,735,108    | 118,292,853                 |
| Other roadway assets                                   | 55,731,641                  | -             | -           | 35,168,468    | 90,900,109                  |
| Vehicles                                               | 392,132                     | 34,570        | (17,544)    | -             | 409,158                     |
| Total capital assets being depreciated                 | 176,387,040                 | 595,050       | (68,173)    | 185,762,236   | 362,676,153                 |
| Less accumulated depreciation for:                     |                             |               |             |               |                             |
| Furniture and fixtures                                 | (1,448,537)                 | (386,942)     | 39,960      | -             | (1,795,519)                 |
| Equipment and improvements                             | (15,887,068)                | (7,636,204)   | -           | -             | (23,523,272)                |
| Buildings, toll facilities, and leasehold improvements | (4,146,947)                 | (2,495,414)   | -           | -             | (6,642,361)                 |
| Asphalt                                                | (2,675,129)                 | (4,021,399)   | -           | (129,849)     | (6,826,377)                 |
| Bridges                                                | (2,123,622)                 | (2,485,953)   | -           | -             | (4,609,575)                 |
| Other roadway assets                                   | (3,434,561)                 | (2,241,342)   | -           | 129,849       | (5,546,054)                 |
| Vehicles                                               | (214,896)                   | (67,152)      | 576         | -             | (281,472)                   |
| Total accumulated depreciation                         | (29,930,760)                | (19,334,406)  | 40,536      | -             | (49,224,630)                |
| Net depreciable capital assets                         | 146,456,280                 | (18,739,356)  | (27,637)    | 185,762,236   | 313,451,523                 |
| Net capital assets                                     | \$ 772,533,560              | \$ 72,996,310 | \$ (76,906) | \$ -          | \$ 845,452,964              |

As of June 30, 2009 and 2008, capital assets depreciation expense was \$20,248,798 and \$19,334,406, respectively. During 2009, after evaluating the existing pavement markings on the Authority's Roadway System, the General Engineering Consultant determined that its useful life should be changed from seven (7) to five (5) years. FASB Statement No. 154, Accounting for Changes and Error Corrections, states that the cumulative effect of the change in depreciation should be reported in the Statement of Revenue, Expenses and Changes in Net Assets in the year of change. The cumulative effect of this change resulted in additional depreciation of \$404,492 for the year ended June 30, 2009.

As discussed in Note 1, the Authority obtained the rights to operate the State of Florida's expressway system located within the boundaries of the County. The difference between the net book value of tangible assets received less the net book value of liabilities assumed and consideration paid, amounting to approximately \$76,646,000, is reflected in these financial statements as an intangible asset (Rights to Operate the System). As of June 30, 2008 and prior fiscal years, the intangible asset was reflected net of accumulated amortization which was amortized on a straight line basis with a life of 40 years.

In Accordance with GASB Statement No. 51, Accounting and Financial Reporting for Intangible Assets, amortization expense was not recorded in fiscal year 2009 and the accumulated

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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

amortization through June 30, 2008 was reversed, the effect of which is reflected as an adjustment to Net Assets for the beginning of fiscal year 2008.

Interest capitalized per GASB Statement No. 34 in fiscal years 2009 and 2008 amounted to \$20,651,661 and \$19,221,106, respectively.

The Authority allocates certain costs incurred in the acquisition, design and construction of capital assets such as salaries, benefits, general expenses and contracted services to the related capital asset. For the fiscal year ended June 30, 2009 and 2008, the Authority capitalized \$1,002,953 and \$1,033,956, respectively, in contracted service expenses and \$2,143,794 and \$1,756,948, respectively, in salaries, benefits and general expenses.

As of June 30, 2009 and 2008, unspent debt proceeds restricted for capital projects of \$175,213,935 and \$292,465,974, respectively, are included in net assets invested in capital assets, net of related debt in the accompanying financial statements.

**Note 5 - Unamortized Bond Issuance Costs**

The Authority has deferred costs of issuance associated with the outstanding revenue bonds. These costs are comprised of (a) professional services costs of issuance, (b) underwriters' discount, (c) surety insurance premiums and (d) bond insurance premiums. The deferred costs are amortized over the life of the bonds by an annual allocation of the unamortized costs at the beginning of the year. The allocation is based on the interest expense for the year to the total interest expense over the life of the bonds (interest allocation method).

The Authority has surety policies associated with its bond issuances from bond insurers, Financial Guarantee Insurance Company ("FGIC") and American Municipal Bond Assurance Corporation ("AMBAC"), to partially fund the Debt Service Reserve (DSR). Due to the financial condition of both companies, the insurers' credit ratings were downgraded below an "A" category by the rating agencies, S&P, Moody's, and Fitch. The ratings downgrade resulted in the Authority transferring bond proceeds into the Debt Service Reserve Fund in order to be compliant with the Trust Indenture's AAA rated Surety Policy requirement. Under applicable Federal tax law, up to 10% of the initial stated principal bond proceeds may be used to fund the deficiency in the DSR. The Authority transferred \$11,354,961 (4.7%) from the Series 2005 bond proceeds and \$30,400,000 (10%) from the Series 2006 bond series to fund DSR. While they do not currently hold an AAA rating, both the FGIC and AMBAC policies remain in effect. The premium costs associated with the policies remain on the Authority's books and are being amortized.

Unamortized bond issuance costs and its accumulated amortization are as follows:

|                               | <b>2009</b>          | <b>2008</b>          |
|-------------------------------|----------------------|----------------------|
| Original cost                 | \$ 17,933,524        | \$ 18,176,849        |
| Less accumulated amortization | (4,074,480)          | (3,467,092)          |
|                               | <u>\$ 13,859,044</u> | <u>\$ 14,709,757</u> |



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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

**Note 6 – Long-Term Liabilities**

A summary of changes in long-term liabilities is as follows:

|                                         | <u>Balance at</u><br><u>June 30, 2008</u> | <u>Additions</u> | <u>Reductions</u> | <u>Balance at</u><br><u>June 30, 2009</u> | <u>Due Within</u><br><u>One Year</u> |
|-----------------------------------------|-------------------------------------------|------------------|-------------------|-------------------------------------------|--------------------------------------|
| <b>Revenue bonds</b>                    |                                           |                  |                   |                                           |                                      |
| Series 1999                             | \$ 4,666,664                              | \$ -             | \$ (666,666)      | \$ 3,999,998                              | \$ 666,666                           |
| Series 2000                             | 28,005,000                                | -                | (3,400,000)       | 24,605,000                                | 3,570,000                            |
| Series 2001A                            | 89,345,000                                | -                | -                 | 89,345,000                                | -                                    |
| Series 2002                             | 33,440,000                                | -                | (270,000)         | 33,170,000                                | 275,000                              |
| Series 2004A                            | 59,800,000                                | -                | (3,200,000)       | 56,600,000                                | 3,400,000                            |
| Series 2004B                            | 175,000,000                               | -                | -                 | 175,000,000                               | -                                    |
| Series 2005A                            | 54,800,000                                | -                | -                 | 54,800,000                                | -                                    |
| Series 2005B                            | 54,800,000                                | -                | -                 | 54,800,000                                | -                                    |
| Series 2005C                            | 54,800,000                                | -                | -                 | 54,800,000                                | -                                    |
| Series 2005D                            | 38,500,000                                | -                | -                 | 38,500,000                                | -                                    |
| Series 2005E                            | 38,500,000                                | -                | -                 | 38,500,000                                | -                                    |
| Series 2006                             | 304,335,000                               | -                | -                 | 304,335,000                               | -                                    |
|                                         | 935,991,664                               | -                | (7,536,666)       | 928,454,998                               | 7,911,666                            |
| Add bond premium, net                   | 13,569,738                                | -                | (680,517)         | 12,889,221                                | -                                    |
| Less bond discount, net                 | (1,993,861)                               | -                | 132,410           | (1,861,451)                               | -                                    |
| Less refunding losses, net              | (6,960,391)                               | -                | 562,328           | (6,398,063)                               | -                                    |
| Total revenue bonds, net                | 940,607,150                               | -                | (7,522,445)       | 933,084,705                               | 7,911,666                            |
| <b>Loans due to other governments</b>   |                                           |                  |                   |                                           |                                      |
| Toll facilities revolving trust fund #1 | 448,665                                   | -                | (168,671)         | 279,994                                   | 168,084                              |
| Toll facilities revolving trust fund #2 | 1,500,000                                 | -                | -                 | 1,500,000                                 | -                                    |
| Toll facilities revolving trust fund #3 | 1,500,000                                 | -                | -                 | 1,500,000                                 | -                                    |
| Toll facilities revolving trust fund #4 | 1,500,000                                 | -                | -                 | 1,500,000                                 | -                                    |
| State of Infrastructure Bank Loan #1    | 2,000,000                                 | -                | (2,000,000)       | -                                         | -                                    |
| State of Infrastructure Bank Loan #2    | 12,500,000                                | -                | (6,500,000)       | 6,000,000                                 | 6,000,000                            |
| State of Infrastructure Bank Loan #3    | 20,000,000                                | -                | -                 | 20,000,000                                | -                                    |
| State of Infrastructure Bank Loan #4    | 11,613,000                                | -                | -                 | 11,613,000                                | -                                    |
| State of Infrastructure Bank Loan #5    | -                                         | 5,000,000        | -                 | 5,000,000                                 | -                                    |
| Total loans due to other governments    | 51,061,665                                | 5,000,000        | (8,668,671)       | 47,392,994                                | 6,168,084                            |
| <b>Arbitrage rebates payable</b>        | 1,918,430                                 | -                | (565,878)         | 1,352,552                                 | -                                    |
| Total long-term liabilities             | \$ 993,587,245                            | \$ 5,000,000     | \$ (16,756,994)   | \$ 981,830,251                            | \$ 14,079,750                        |

(Continued)

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

(Continued from previous page)

|                                         | <u>Balance at</u><br><u>June 30, 2007</u> | <u>Additions</u> | <u>Reductions</u> | <u>Balance at</u><br><u>June 30, 2008</u> | <u>Due Within</u><br><u>One Year</u> |
|-----------------------------------------|-------------------------------------------|------------------|-------------------|-------------------------------------------|--------------------------------------|
| <b>Revenue bonds</b>                    |                                           |                  |                   |                                           |                                      |
| Series 1999                             | \$ 5,333,331                              | \$ -             | \$ (666,667)      | \$ 4,666,664                              | \$ 666,666                           |
| Series 2000                             | 31,240,000                                | -                | (3,235,000)       | 28,005,000                                | 3,400,000                            |
| Series 2001A                            | 89,345,000                                | -                | -                 | 89,345,000                                | -                                    |
| Series 2002                             | 33,700,000                                | -                | (260,000)         | 33,440,000                                | 270,000                              |
| Series 2004A                            | 62,800,000                                | -                | (3,000,000)       | 59,800,000                                | 3,200,000                            |
| Series 2004B                            | 175,000,000                               | -                | -                 | 175,000,000                               | -                                    |
| Series 2005A                            | 54,800,000                                | -                | -                 | 54,800,000                                | -                                    |
| Series 2005B                            | 54,800,000                                | -                | -                 | 54,800,000                                | -                                    |
| Series 2005C                            | 54,800,000                                | -                | -                 | 54,800,000                                | -                                    |
| Series 2005D                            | 38,500,000                                | -                | -                 | 38,500,000                                | -                                    |
| Series 2005E                            | 38,500,000                                | -                | -                 | 38,500,000                                | -                                    |
| Series 2006                             | 304,335,000                               | -                | -                 | 304,335,000                               | -                                    |
|                                         | 943,153,331                               | -                | (7,161,667)       | 935,991,664                               | 7,536,666                            |
| Add bond premium, net                   | 14,258,407                                | -                | (688,669)         | 13,569,738                                | -                                    |
| Less bond discount, net                 | (2,126,780)                               | -                | 132,919           | (1,993,861)                               | -                                    |
| Less refunding losses, net              | (7,523,234)                               | -                | 562,843           | (6,960,391)                               | -                                    |
| Total revenue bonds, net                | 947,761,724                               | -                | (7,154,574)       | 940,607,150                               | 7,536,666                            |
| <b>Loans due to other governments</b>   |                                           |                  |                   |                                           |                                      |
| Toll facilities revolving trust fund #1 | 616,750                                   | -                | (168,085)         | 448,665                                   | 168,084                              |
| Toll facilities revolving trust fund #2 | 1,500,000                                 | -                | -                 | 1,500,000                                 | -                                    |
| Toll facilities revolving trust fund #3 | 1,500,000                                 | -                | -                 | 1,500,000                                 | -                                    |
| Toll facilities revolving trust fund #4 | -                                         | 1,500,000        | -                 | 1,500,000                                 | -                                    |
| State of Infrastructure Bank Loan #1    | 8,000,000                                 | -                | (6,000,000)       | 2,000,000                                 | 2,000,000                            |
| State of Infrastructure Bank Loan #2    | 18,000,000                                | -                | (5,500,000)       | 12,500,000                                | 6,500,000                            |
| State of Infrastructure Bank Loan #3    | 20,000,000                                | -                | -                 | 20,000,000                                | -                                    |
| State of Infrastructure Bank Loan #4    | 11,613,000                                | -                | -                 | 11,613,000                                | -                                    |
| Total loans due to other governments    | 61,229,750                                | 1,500,000        | (11,668,085)      | 51,061,665                                | 8,668,084                            |
| <b>Arbitrage rebates payable</b>        | 1,453,617                                 | 464,813          | -                 | 1,918,430                                 | -                                    |
| Total long-term liabilities             | \$ 1,010,445,091                          | \$ 1,964,813     | \$ (18,822,659)   | \$ 993,587,245                            | \$ 16,204,750                        |

(Concluded)

**A. Revenue Bonds Payable**

**(1) \$10,000,000 Toll System Revenue Bonds, Series 1999**

On November 1, 1999, the Authority issued \$10,000,000 Toll System Revenue Bonds, Series 1999 (Non-Taxable) (the Series 1999 Bonds). The Series 1999 Bonds were issued for the purpose of providing funds to (a) pay a portion of the cost of certain improvements to the system included within the current five-year work program of the Authority in effect from time to time; (b) fund a portion of the Debt Service Fund Requirement in respect of the Series 1999 Bonds; and (c) pay certain costs associated with the issuance of the Series 1999 Bonds. The bonds mature on January 1, 2015 with annual principal installments of \$666,667

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

beginning January 1, 2001 through January 1, 2015, with semiannual interest payments at 4.94% per annum, due each January 1 and July 1. The Series 1999 Bonds are secured by the revenue generated by the Authority's existing expressway system subject to the terms and limitations set forth in the Indenture, excluding amounts deposited in the Rebate Fund, if any.

**(2) \$150,000,000 Toll System Revenue Bonds, Series 2000**

On January 1, 2000, the Authority issued \$150,000,000 Toll System Revenue Bonds, Series 2000 (Non-Taxable) (the Series 2000 Bonds). The bonds were issued for the purpose of providing funds to (a) pay a portion of the cost of certain improvements to the system included in the five-year work program of the Authority in effect from time to time; (b) fund a deposit to the Debt Service Reserve Fund in an amount equal to the increase in the Debt Service Reserve Fund Requirement resulting from the issuance of the Series 2000 Bonds; and (c) pay costs and expenses relating to the issuance of the Series 2000 Bonds. The Series 2000 Bonds, net of unamortized net premium totaling \$2,809,283, consist of (a) \$40,070,000 serial bonds maturing between July 1, 2004 and July 1, 2014, bearing interest between 4.8% and 6%; (b) \$30,485,000 fixed term bonds at 6%; and (c) \$79,445,000 fixed term bonds at 6.375%, with semiannual interest payments each January 1 and July 1. The Series 2000 Bonds are secured by the revenue generated by the Authority's existing expressway system subject to the terms and limitations set forth in the Indenture on a parity with the Series 1999 Bonds, excluding amounts deposited in the Rebate Fund, if any.

**(3) \$89,345,000 Toll System Refunding Revenue Bonds, Series 2001A**

On July 11, 2001, the Authority issued \$89,345,000 Toll System Refunding Revenue Bonds, Series 2001A (Non-Taxable) (the Series 2001A Bonds). The Series 2001A Bonds were issued and placed in an irrevocable trust for the purpose of providing funds to (a) refund \$79,445,000 principal amount of the Series 2000 Bonds; and (2) pay costs and expenses relating to the issuance of the Series 2001A Bonds and the refunding of the Refunded Series 2000 Bonds. The Series 2001A Bonds consist of (1) \$13,000,000 serial bonds maturing between July 1, 2012 and July 1, 2021, bearing interest between 4.5% and 5%; (b) \$34,370,000 fixed term bonds at 5.125%; and (c) \$41,975,000 fixed term bonds at 5.125%. The Series 2001A Bonds are secured under the Indenture on parity with the Series 1999 Bonds, the Series 2000 Bonds outstanding after issuance of the Series 2001A Bonds and any other Bonds hereafter issued under the Indenture.

The transaction resulted in a \$6,130,809 deferred charge to be amortized over the life of the new debt. This refunding has resulted in an economic gain of \$3,781,501. The difference between the cash flows received to service the old debt and the cash flows required to service the new debt is \$4,788,116.

**(4) \$34,650,000 Toll System Refunding Revenue Bonds, Series 2002**

On August 22, 2002, the Authority issued \$34,650,000 Toll System Refunding Revenue Bonds, Series 2002 (Non-Taxable) (the Series 2002 Bonds). The Series 2002 Bonds were issued for the purpose of providing funds to (a) refund \$30,485,000 principal amount of the Refunded Series 2000 Bonds; and (2) pay costs and expenses relating to the issuance of the

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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

Series 2002 Bonds and the refunding of the Refunded Series 2000 Bonds. The Series 2002 Bonds consist of \$34,650,000 Serial Bonds maturing between July 1, 2003 and July 1, 2020, bearing interest between 1.35% and 4.625%. The Series 2002 Bonds are secured under the Indenture on parity with the Series 1999 Bond, the Series 2000 Bonds and the Series 2001A Bonds outstanding after issuance of the Series 2002 Bonds and any other Bonds hereafter issued under the Indenture.

The transaction resulted in a \$3,502,380 deferred charge to be amortized over the life of the new debt. This refunding has resulted in an economic gain of \$1,100,672. The difference between the cash flows received to service the old debt and the cash flows required to service the new debt is \$2,243,369.

**(5) \$68,200,000 Toll System Refunding Revenue Bonds, Series 2004A**

On July 29, 2004, the Authority issued Toll System Refunding Revenue Bonds, Series 2004A (Non-Taxable) (the Series 2004A Bonds). The Series 2004A Bonds were issued for the purpose of providing funds to refund the total outstanding principal amount of the (Taxable) Series 1996 Bonds. The Series 2004A Bonds consist of \$68,200,000 Serial Bonds maturing between July 1, 2005 and July 1, 2019. The Series 2004A Bonds were issued in the form of Dutch Auction Rate Bonds bearing interest at a Dutch Auction Rate. The Series 2004A Bonds were dated their date of delivery and after the initial Dutch Auction Rate Period, were in a Standard Auction Period of 35 days, subject to conversion in whole only to another Auction Period or in whole or in part to another Interest Mode as determined by the Authority. The Series 2004A Bonds were connected to an interest rate swap agreement under which the Authority owed a fixed rate of 5.352% to the counterparty of the swap. The Series 2004A Bonds were secured under the Indenture on parity with the Series 1999 Bonds, the Series 2000 Bonds, the Series 2001A Bonds and the Series 2002 Bonds outstanding after issuance of the Series 2004A Bonds and any other Bonds hereafter issued under the Indenture.

The transaction resulted in an \$833,000 deferred charge to be amortized over the life of the new debt. This refunding has resulted in an economic gain of \$5,184,414.

On May 9, 2008, in response to the Auction Rate market crisis, the Authority exercised its right under the multi modal bond documents to convert its Series 2004A Auction Rate Bonds. The Authority entered into an agreement with Dexia Credit Local Bank, New York Branch ("Dexia") to purchase, to maturity, its outstanding Series 2004A bonds in the amount of \$59,800,000. Under the terms of the agreement, the Authority agreed to pay one month London Interbank Offered Rate (LIBOR) index plus 45 basis points for the first year, and LIBOR plus 105 basis points thereafter, through maturity. Dexia may, at its own discretion, allow the Authority to convert into Securities Industry and Financial Markets Association (SIFMA) index. The Authority maintains the right to refund or convert the Bonds, upon notice to Dexia. As of June 30, 2009, the interest payments to Dexia remain based on LIBOR index.

The amortization of principal payments remains unchanged.

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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

***(6) \$175,000,000 Toll System Refunding Revenue Bonds, Series 2004B***

On July 29, 2004, the Authority issued \$175,000,000 Toll System Revenue Bonds, Series 2004B (Non-Taxable) (the Series 2004B Bonds). The Series 2004B Bonds were issued for the purpose of providing funds to (a) pay a portion of the cost of certain improvements to the System included in the five-year work program of the Authority in effect from time to time; (b) pay at maturity the Authority's outstanding Toll System Commercial Paper Notes; and (c) pay costs and expenses relating to the issuance of the Series 2004B Bonds. The Series 2004B Bonds consist of (a) \$103,445,000 Serial Bonds maturing between July 1, 2014 and July 1, 2027, bearing interest between 3.85% and 5.25%; and (b) \$71,555,000 fixed term bonds at 5%, with semi-annual interest payments each January 1 and July 1. The Series 2004B Bonds are secured under the Indenture on parity with the Series 1999 Bonds, the Series 2000 Bonds, the Series 2001A Bonds, the Series 2002 Bonds and the Series 2004A Bonds outstanding after issuance of the Series 2004B Bonds and any other Bonds hereafter issued under the Indenture.

***(7) \$241,400,000 Toll System Refunding Revenue Bonds, Series 2005***

On March 1, 2005, the Authority issued Toll System Revenue Bonds, Series 2005 (Non-Taxable) (the Series 2005 Bonds) in five sub-series for a total of \$241,400,000, including Series 2005A-C in the amount of \$54,800,000 (each series) and Series 2005D-E in the amount of \$38,500,000 (each series). Each Series of the 2005 Bonds was initially issued in the form of Dutch Auction Rate Bonds bearing interest at a Dutch Auction Rate. Each Series of 2005 Bonds were dated their date of delivery and after the initial Auction Period for such Series, were in an Auction Period of seven days, subject to conversion in whole only to another Auction Period or to another Interest Mode as determined by the Authority. The series 2005 Bonds were connected to an interest rate swap agreement under which the Authority owed a fixed rate of 4.313% to the counterparty of the swap. The Series 2005 Bonds were issued to (a) pay a portion of the cost of certain improvements to the System included in the five-year work program of the Authority in effect from time to time, including capitalized interest of \$13,304,881 on the series 2005 Bonds through July 1, 2007; and (b) pay costs and expenses relating to the issuance of the Series 2005 Bonds. The Series 2005 Bonds were secured under the Indenture on parity with the Series 1999 Bond, the Series 2000 Bonds, the Series 2001A Bonds, the Series 2002 Bonds, the Series 2004A Bonds and the Series 2004B Bonds outstanding after issuance of the Series 2005 Bonds and any other Bonds hereafter issued under the Indenture.

On May 9 2008, in response to the Auction Rate market crisis, the Authority exercised its right under the multi modal bond documents to convert its auction rate bonds. The Authority entered into an agreement with Dexia Credit Local Bank, New York Branch ("Dexia") to purchase, to maturity, its outstanding Series 2005 Bonds in the amount of \$241,400,000. Under the terms of the agreement, the Authority agreed to pay one month London Interbank Offered Rate (LIBOR) index plus 45 basis points for the first year, and LIBOR plus 105 basis points thereafter, through maturity. Dexia may, at its own discretion, allow the Authority to convert into Securities Industry and Financial Markets Association (SIFMA) index. The

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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

Authority maintains the right to refund or convert the Bonds, upon notice to Dexia. As of June 30, 2009, the interest payments to Dexia remain based on LIBOR index.

The amortization of principal payments remains unchanged.

***(8) \$304,335,000 Toll System Revenue Bonds, Series 2006***

On September 21, 2006, the Authority issued Toll System Revenue Bonds, Series 2006 (Non taxable) (the Series 2006 Bonds). The Bonds were issued to (a) pay a portion of the cost of certain improvements to the System included in the five-year work program of the Authority in effect from time to time, including capitalized interest of \$11,570,728 on the Bonds for the period through July 1, 2007, (b) pay the swap termination payments of \$3,105,000 for the cash settlement swap entered into on July 18, 2005 in anticipation of the issuance of the Bonds as a means of preserving the work program capacity, and (c) pay costs and expenses relating to the issuance of the Bonds. The Series 2006 Bonds net of unamortized net premium totaling \$10,626,184 consist of (a) \$91,865,000 serial bonds maturing between July 1, 2020 and July 1, 2029, bearing interest between 4.125% and 5.0%; (b) \$174,125,000 fixed term bonds at 5.0% maturing on July 1, 2030, July 1, 2037, and July 1, 2039; and (c) \$38,345,000 fixed term bonds at 4.50% maturing on July 1, 2033. Interest on the bonds is paid semi-annually each January 1 and July 1. The Series 2006 Bonds are secured under the Trust Indenture on parity with the series 1999 Bonds, the Series 2000 Bonds, the Series 2001A Bonds, the Series 2002 Bonds, the Series 2004A Bonds, the Series 2004B Bonds, and the Series 2005 Bonds outstanding after issuance of the Series 2006 Bonds and any other Bonds hereafter issued under the indenture.

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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

The annual revenue bonds' debt service requirements as of June 30, 2009 are summarized as follows:

| Year ending June 30      | Revenue Bonds         | Revenue Bonds         |
|--------------------------|-----------------------|-----------------------|
|                          | Principal             | Interest              |
| 2010                     | \$ 7,911,667          | \$ 47,590,631         |
| 2011                     | 8,311,667             | 47,115,891            |
| 2012                     | 8,816,667             | 46,585,930            |
| 2013                     | 9,676,667             | 46,009,669            |
| 2014                     | 10,341,667            | 45,388,537            |
| 2015-2019                | 100,311,663           | 212,430,777           |
| 2020-2024                | 157,125,000           | 180,565,864           |
| 2025-2029                | 217,010,000           | 133,887,683           |
| 2030-2034                | 290,155,000           | 70,793,934            |
| 2035-2039                | 118,795,000           | 18,397,750            |
|                          | <u>928,454,998</u>    | <u>848,766,666</u>    |
| Plus premium, net        | 12,889,221            | -                     |
| Less bond discount, net  | 1,861,451             | -                     |
| Less refunding loss, net | 6,398,063             | -                     |
|                          | <u>\$ 933,084,705</u> | <u>\$ 848,766,666</u> |

**Refunded and Defeased Debt**

In July 2001, the Authority defeased \$79,445,000 of its Series 2000 Bonds scheduled to mature on July 1, 2029, by placing the proceeds of the Series 2001A Bonds in an irrevocable trust monitored by U.S. Bank. Such proceeds are invested in open market securities and will provide for all future debt service payments on the defeased bonds. Accordingly, the trust account's assets and the liability for the defeased bonds are not included in the accompanying financial statements.

In August 2002, the Authority defeased \$30,485,000 of its Series 2000 Bonds scheduled to mature on July 1, 2020, by placing the proceeds of the Series 2002 Bonds (plus other monies) in an irrevocable trust monitored by The Bank of New York. Such proceeds are invested in State and Local Government Securities ("SLGS") and will provide for all future debt service payments on the defeased bonds. Accordingly, the trust account's assets and the liability for the defeased bonds are not included in the accompanying financial statements.

At June 30, 2009, all defeased bonds remain outstanding.

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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

**Interest Rate Swap Agreements**

**Series 2004A Bonds**

**Objective of the Swap:**

On January 13, 1999, the Miami Dade Expressway Authority (the “Authority”) entered into an interest rate swap agreement (the “1999 Swap”) with Citigroup Financial Products, Inc. (“Citi”) relating to the Authority’s \$80,000,000 Toll System Revenue Bonds Series 1996 (Taxable) the (“1996 Bonds”). On April 12, 2002, , the Authority amended the 1999 swap (the “2002 Amendment to the 1999 Swap”) and changed the fixed rate that the Authority paid under the 1999 Swap agreement from 5.325% to 6.6265%. Subsequently, on June 30, 2004, the 1996 Bonds were refunded using proceeds from the Toll System Refunding Revenue Bond Series 2004A (Auction Rate Securities) (the “2004A Bonds”) and the 1999 swap was further amended (the “2004 Amendment to the 1999 Swap”) by changing the fixed rate payable by the Authority to 5.352%. In return, under the 2004 Amendment to the 1999 Swap, Citi agreed to make periodic payments to the Authority based on the Securities Industry and Financial Markets Association Municipal Swap Index (“SIFMA”), a short term variable rate that approximates the tax-exempt variable rate. On May 9, 2008, the 1999 Swap was further amended (the “2008 Amendment of the 1999 Swap”) by changing the fixed rate payable by the Authority to 5.462%. In exchange, Citi agreed to make payments to the Authority based on the one month LIBOR index from May 9, 2008 to May 1, 2009, and thereafter Citi will make payments to the Authority based on SIFMA from May 1, 2009 to termination, July 1, 2019.

Citigroup, Inc. (“Citigroup”), the credit support provider of Citi, has a Moody’s credit rating of A3/P-1 (Long Term/Short Term) and a S&P credit rating of A/A-1 (Long Term/Short Term) as of June 30, 2009.

**Fair Value:**

As of June 30, 2009 and June 30, 2008, because interest rates have declined since its execution, the swap agreement had a negative fair market value of \$8,351,580 and \$6,835,241, respectively. Swaps are not normally valued through exchange-type markets with easily accessible quotation systems and procedures. The fair market value was calculated using information obtained from generally recognized sources with respect to quotations, reporting of specific transactions and market conditions, and based on accepted industry standards and methodologies.



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Years Ended June 30, 2009 and 2008

Termination Risk:

The maximum exposure resulting from terminating the swap at June 30, 2009 and June 30, 2008 is the fair market values of \$8,351,580 and \$6,835,241, respectively.

Credit Risk:

As of June 30, 2009, the swap had a negative fair value which means that in the event of a termination the Authority will make a termination payment to Citi.

In accordance with the terms of the 2008 Amendment, if at any time the credit rating from either Moody's or S&P on the long-term, unsecured, unsubordinated debt obligations of Citigroup or the Authority is lower than Baa2 by Moody's or BBB by S&P, then the no-affected party shall have the right, but not the obligation to terminate the swap.

Citi and the Authority are subject to the collateral requirements outlined in the following table found in schedule II of the 2008 Amendment to the Swap.

| <u>Moody's</u> | <u>S &amp; P</u> | <u>Threshold</u> | <u>Minimum Transfer Amount</u> |
|----------------|------------------|------------------|--------------------------------|
| Aaa            | AAA              | \$25,000,000     | \$1,000,000                    |
| Aa1/Aa2/Aa3    | AA+/AA/AA-       | \$20,000,000     | \$1,000,000                    |
| A1/A2/A3       | A+/A/A-          | \$17,000,000     | \$500,000                      |
| Baa1           | BBB+             | \$5,000,000      | \$250,000                      |
| Baa2 or below  | BBB or below     | \$0              | \$0                            |

Because the fair market value of the Swap is below the \$17,000,000 threshold for the credit rating of A1/A2/A3, the Authority's current A3 rating does not require collateral to be posted as of June 30, 2009.

Basis Risk:

Under the 2008 Amendment, the Authority will receive a variable payment from the swap which will be used to offset the payments of the Dexia Bonds. The variable receipts under the swap shall be based on SIFMA whereas payments due on 2004A Bonds will be based on LIBOR. Debt service requirements of the variable rate debt and net swap payments, assuming interest rates as of June 30, 2009 remain the same for their term, are as follows.

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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

| Fiscal Year Ending June 30, | Variable-Rate Bonds |               | Interest Rate | Total         |
|-----------------------------|---------------------|---------------|---------------|---------------|
|                             | Principal           | Interest      | Swaps, net    |               |
| 2010                        | \$ 3,400,000        | \$ 3,464,384  | \$ 2,730,484  | \$ 9,594,868  |
| 2011                        | 3,600,000           | 3,229,952     | 2,547,520     | 9,377,472     |
| 2012                        | 3,900,000           | 2,975,984     | 2,356,050     | 9,232,034     |
| 2013                        | 4,100,000           | 2,708,992     | 2,153,376     | 8,962,368     |
| 2014                        | 4,400,000           | 2,422,464     | 1,911,339     | 8,733,803     |
| 2015-2019                   | 26,700,000          | 7,124,128     | 5,742,788     | 39,566,916    |
| 2020                        | 10,500,000          | -             | -             | 10,500,000    |
| Total                       | \$ 56,600,000       | \$ 21,925,904 | \$ 17,441,557 | \$ 95,967,461 |

**Series 2005 Bonds**

**Objective of the Swap:**

On October 28, 2004, the Authority entered into three interest rate swap agreements (the “2005 Swaps”) in connection with the \$241,400,000 Toll System Revenue Bonds, Series 2005 (the “2005 Bonds”). The 2005 Swaps were executed with initial notional values of \$80,463,333; \$80,463,334; and \$80,473,333 totaling \$241,400,000 with Bear Stearns Capital Markets, Inc., Citigroup Financial Products, Inc. and UBS AG, Stamford Branch (the “Counterparties”). Under the 2005 Swap Agreements, the Authority owed interest at a fixed rate of 4.313% to the Counterparties. In return, the Counterparties owed the Authority interest based upon the SIFMA Index. On May 9, 2008, the 2005 Swaps were further amended (the “2008 Amendment of the 2005 Swaps”) by changing the fixed rate payable by the Authority to 4.372%. In exchange, the counterparties agreed to make payments to the Authority based on the one month LIBOR index from May 9, 2008 to May 1, 2009, and thereafter the counterparties will make payments to the Authority based on SIFMA from May 1, 2009 to termination, July 1, 2034.

The counterparties of the 2005 swaps at the trade date are Citibank, N.A., The Bear Stearns Companies Inc., and UBS AG. As of June 30, 2009, Citibank, N.A. have credit ratings by Moody’s of A1/P-1 (Long term/Short Term), and S&P A+/A-1 (Long Term/Short Term). UBS AG has credit ratings by Moody’s of Aa2/P-1 and S&P A+/A-1. Due to the financial market crisis, on March 14, 2008 Bear Stearns entered into an agreement with JP Morgan Chase & Co. to purchase all of its assets and liabilities. On May 30, 2008, the acquisition of Bear Stearns was completed. All outstanding swap agreements were transferred to JP Morgan Chase & Co. with a credit rating of Aa3/P-1, and A+/A-1 Moody’s and S&P respectively.

**Fair Value:**

As of June 30, 2009 and June 30, 2008, because interest rates have declined since execution of the 2005 Swaps, the swaps had a negative total fair market value of \$26,781,957 and 16,821,583, respectively. Swaps are not normally valued through exchange-type markets with easily accessible quotation systems and procedures. The fair market value was

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Notes to Financial Statements (continued)

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calculated using information obtained from generally recognized sources with respect to quotations, reporting of specific transaction and market conditions, and based on accepted industry standards and methodologies.

**Credit Risk:**

As of June 30, 2009, the 2005 Swaps had a negative fair market value which means that in the event of a termination the Authority will make a termination payment to counterparties. All swap payments and termination amounts are insured by AMBAC or supported through collateralization agreement. If the credit rating of the insurer AMBAC were to fall below the threshold credit rating of A3 and A-, then an Additional Termination Event (“ATE”) will occur. In case of an ATE, the Authority must (i) post ratings from both S&P and Moody’s of at least A- and A3 respectively or (ii) provide a replacement or additional swap insurance policy, letter of credit, guaranty or similar form of credit support for the counterparty. As of June 30, 2009 AMBAC’s credit rating stood at Caa1 by Moody’s and BB by S&P.

The Authority maintains an “A” rating, therefore the Authority’s collateral threshold remains infinite, whereby there will be no requirement for the Authority to post collateral. However, once the Authority’s credit rating falls below the “A” category, the Authority is responsible to post dollar for dollar collateral for the negative fair value.

| <b>Ratings</b><br><b>Moody’s / S &amp; P</b> | <b>Threshold</b>    |                  | <b>Minimum Transfer Amount</b> |                  |
|----------------------------------------------|---------------------|------------------|--------------------------------|------------------|
|                                              | <b>Counterparty</b> | <b>Authority</b> | <b>Counterparty</b>            | <b>Authority</b> |
| Aa3/AA – and above                           | Infinite            | Infinite         | \$100,000                      | \$100,000        |
| A1/A+                                        | \$50,000,000        | Infinite         | \$100,000                      | \$100,000        |
| A2/A                                         | \$25,000,000        | Infinite         | \$100,000                      | \$100,000        |
| A3/A-                                        | \$10,000,000        | Infinite         | \$100,000                      | \$100,000        |
| Below A3/A – or not rated                    | \$0                 | \$0              | \$0                            | \$0              |

**Termination Risk:**

The maximum exposure resulting from terminating the swap at June 30, 2009 and June 30, 2008 is its fair market value of \$26,781,957 and \$16,821,583, respectively.

All swap payments and termination amounts are insured by AMBAC, however, because AMBAC’s credit rating is below the Authority’s credit rating, the insurance does not possess any value in terms of credit. However, if AMBAC was to attain ratings of at least A- and A3 respectively then it could regain its credit value.

**Basis Risk:**

Under the 2008 Amendment to the 2005 Swaps, the Authority will receive a variable payment from the swaps which will be used to offset the payments of the Dexia Bonds. The

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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

variable receipts under the 2005 swaps shall be based on SIFMA, whereas payments on the 2005 bonds are based on LIBOR.

Debt service requirements of the variable rate debt and net swap payments, assuming interest rates as of June 30, 2009 remain the same for their term, are as follows. As rates vary, variable rate debt interest payments will vary. These amounts are included in the annual debt service requirements schedule below.

| <b>Fiscal Year Ending June 30,</b> | <b>Variable-Rate Bonds</b> |                       | <b>Interest Rate</b>  | <b>Total</b>          |
|------------------------------------|----------------------------|-----------------------|-----------------------|-----------------------|
|                                    | <b>Principal</b>           | <b>Interest</b>       | <b>Swaps, net</b>     |                       |
| 2010                               | \$ -                       | 13,088,708            | \$ 9,693,827          | \$ 22,782,535         |
| 2011                               | -                          | 13,088,708            | 9,693,827             | 22,782,535            |
| 2012                               | -                          | 13,088,708            | 9,691,470             | 22,780,178            |
| 2013                               | -                          | 13,088,708            | 9,693,827             | 22,782,535            |
| 2014                               | -                          | 13,088,708            | 9,693,827             | 22,782,535            |
| 2015-2019                          | 13,000,000                 | 64,440,470            | 38,868,327            | 116,308,797           |
| 2020-2024                          | 33,650,000                 | 91,700,643            | 34,679,037            | 160,029,680           |
| 2025-2029                          | 70,600,000                 | 131,847,868           | 40,584,064            | 243,031,932           |
| 2030-2034                          | 124,150,000                | 145,032,834           | 10,902,220            | 280,085,054           |
| <b>Total</b>                       | <b>\$ 241,400,000</b>      | <b>\$ 498,465,355</b> | <b>\$ 173,500,426</b> | <b>\$ 913,365,781</b> |

**B. Commercial Paper Notes**

On March 23, 2004, the Board authorized the issuance of up to \$105,000,000 in Toll System Commercial Paper Notes (the "Notes") with maturities not to exceed 270 days from the date of issuance. The Notes are secured by an Irrevocable Letter of Credit (LOC) with an expiration date of March 23, 2007. The proceeds of the Notes will provide short-term funding of the Authority's capital improvement program. The Notes and accrued interest are payable solely from future bond issuances.

On March 31, 2007, the Board authorized the renewal of the LOC in the amount of \$75,000,000, with an additional option of \$25,000,000 capacity. The LOC will expire in three years on March 31, 2010.

On February 21, 2008, the Authority received a Notice of Commitment Early Termination related to the LOC which terminated effective June 28, 2008.

As of June 30, 2009 and June 30, 2008, the Authority had no outstanding commercial paper notes.

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Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

**C. Loans Due to Other Governments**

***(1) Toll Facilities Revolving Trust Fund Loan***

On May 26, 1998, the Authority entered into an unsecured, non-interest bearing Toll Facilities Revolving Trust Fund loan payable under an agreement authorizing the Authority to borrow up to \$1,000,000 to conduct preliminary engineering studies, traffic and revenue studies, environmental impact studies, financial advisory services, engineering design, right-of-way map preparation, project related professional services, and advanced right-of-way requisition activities. Principal balance outstanding is due from future bond proceeds, if elected by the Authority, or on the basis of repayment schedules. Repayment of principal and investment interest earnings shall begin no later than 7 years after the date of the advance, provided repayment is completed no later than 12 years after the date of the advance. As of June 30, 2009 and June 30, 2008, the outstanding loan balance was \$279,994 and \$448,666, respectively.

On December 31, 2003, the Authority entered into an unsecured, non-interest bearing Toll Facilities Revolving Trust Fund loan payable under an agreement authorizing the Authority to borrow \$1,500,000. Principal balance outstanding is due from future bond proceeds, if elected by the Authority, or on the basis of repayment schedules. Repayment of principal and investment interest earnings shall begin no later than 7 years after the date of the advance, provided repayment is completed no later than 12 years after the date of the advance. As of June 30, 2009 and June 30, 2008, the outstanding loan balance was \$1,500,000 for both years.

On December 5, 2006, the Authority entered into an unsecured, non-interest bearing Toll Facilities Revolving Trust Fund loan (TFRTF 2006) payable under an agreement authorizing the Authority to borrow \$1,500,000. Principal balance outstanding is due from future bond proceeds, if elected by the Authority, or on the basis of repayment schedules. Repayment of principal and investment interest earnings shall begin no later than 7 years after the date of the advance, provided repayment is completed no later than 12 years after the date of the advance. As of June 30, 2009 and June 30, 2008, the outstanding loan balance was \$1,500,000 for both years.

On May 1, 2008, the Authority entered into an unsecured, non-interest bearing Toll Facilities Revolving Trust Fund loan (TFRTF 2008) payable under an agreement authorizing the Authority to borrow \$1,500,000. Principal balance outstanding is due from future bond proceeds, if elected by the Authority, or on the basis of repayment schedules. Repayment of principal and investment interest earnings shall begin no later than 7 years after the date of the advance, provided repayment is completed no later than 12 years after the date of the advance. As of June 30, 2009 and June 30, 2008, the outstanding loan balance was \$1,500,000 for both years.

***(2) State Infrastructure Bank Loans***

On April 30, 2002, the Authority entered into an unsecured, non-interest bearing State Infrastructure Bank (SIB) loan agreement with FDOT ("SIB Loan No. 1") in the amount of \$12,000,000. Under the loan agreement, three installments will be made: \$700,000 no earlier

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Years Ended June 30, 2009 and 2008

than April 2002, \$900,000 no earlier than April 2003 and \$10,400,000 no earlier than April 2004. SIB Loan No. 1 requires annual principal payments beginning October 1, 2005 and ending October 1, 2008 of \$1,000,000, \$3,000,000, \$6,000,000 and \$2,000,000, respectively. As of June 30, 2009 and June 30, 2008, the outstanding loan balance was \$0 and \$2,000,000, respectively.

On February 14, 2003, MDX entered into an unsecured, non-interest bearing State Infrastructure Bank loan agreement with FDOT ("SIB Loan No. 2") in the amount of \$18,000,000. Under the loan agreement, three installments will be made: \$9,000,000 no earlier than April 2003, \$4,000,000 no earlier than April 2004 and \$5,000,000 no earlier than April 2006. SIB Loan No. 2 requires, per an amendment to the Loan agreement requested by FDOT, annual principal payments beginning October 1, 2007 and ending October 1, 2009 of \$5,500,000, \$6,500,000 and \$6,000,000, respectively. As of June 30, 2009 and June 30, 2008, the outstanding loan balance was \$6,000,000 and \$12,500,000, respectively.

On August 4, 2003, the Authority entered into an unsecured non-interest bearing State Infrastructure Bank loan agreement with the FDOT ("SIB Loan No. 3") in the amount of \$20,000,000. The loan will be made in two installments of \$12,500,000 no earlier than April 2004 and \$7,500,000 no earlier than April 2005. SIB Loan No. 3 requires, per an amendment to the Loan agreement requested by the FDOT, annual principal payments beginning October 1, 2010 and ending October 1, 2012 of \$7,000,000, \$9,000,000 and \$4,000,000, respectively. As of June 30, 2009 and June 30, 2008, the outstanding loan balance was \$20,000,000 for both years.

On November 2, 2004, the Authority entered into an unsecured State Infrastructure Bank loan agreement with the FDOT ("SIB Loan No. 4") in the amount of \$11,613,000 at an interest rate of 2.5%. The loan will be made in installments based on the reimbursable construction expenditures made by the Authority on the project specific to the loan agreement. SIB Loan No. 4 requires annual principal payments beginning October 1, 2013. As of June 30, 2009 and June 30, 2008, the outstanding loan balance was \$11,613,000 for both years.

On June 5, 2008, the Authority entered into an unsecured State Infrastructure Bank loan agreement with FDOT ("SIB Loan No. 5") in the amount of \$15,000,000 at an interest rate of 2.0%. The loan will be made in installments over a three (3) year period based on the reimbursable expenditures made by the Authority on the project specific to the loan agreement. SIB Loan No. 5 requires annual principal payments beginning October 1, 2010. As of June 30, 2009 and June 30, 2008, the outstanding loan balance was \$5,000,000 and \$0, respectively.

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Notes to Financial Statements (continued)

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The annual debt service requirements for outstanding loans due to other governments as of June 30, 2009 are summarized as follows:

|           | <b>Principal</b>     | <b>Interest</b>     |
|-----------|----------------------|---------------------|
| 2010      | \$ 6,168,084         | \$ 390,325          |
| 2011      | 7,145,909            | 389,658             |
| 2012      | 10,584,013           | 389,645             |
| 2013      | 5,834,027            | 362,978             |
| 2014      | 3,593,376            | 336,284             |
| 2015-2019 | 14,067,585           | 633,694             |
|           | <u>\$ 47,392,994</u> | <u>\$ 2,502,584</u> |

**D. Arbitrage Rebates Payable**

The Authority has reported in the accompanying financial statements obligations to rebate arbitrage interest earnings on certain toll revenue bonds. The proceeds of the bonds were used to finance a portion of the cost of certain improvements to the Miami-Dade County Expressway System included within the current five-year work program.

The rebate to the federal government at June 30, 2009, required to be paid within five years from the date of issuance and each five years thereafter, is estimated to be \$1,352,552. The ultimate amount of the Authority's liability will be determined based on actual interest earned.

**Note 7 – Retirement Plans**

**Florida Retirement System Plans** - The Authority participates in the State of Florida Retirement System (the "FRS"), a multiple-employer cost sharing defined benefit retirement plan or defined contribution retirement plan, administered by the Florida Department of Administration, Division of Retirement. The FRS was established in 1970, and, as a general rule, membership in the FRS is compulsory for all employees working in a regular established position for a state agency, county government, district school board, state university, community college or a participating city or special district within the State of Florida.

GASB Statement No. 50 addresses the requirements related to the use of the entry age actuarial cost method for the purpose of reporting surrogate funded status and funding progress information for plans that use the aggregate actuarial cost method, which are effective for periods for which the financial statements and required supplementary information contain information resulting from actuarial valuations as of June 15, 2007, or later. As stated above, the Authority participates in the FRS and as such this statement did not have an impact on the Authority's financial statements, including required disclosures.

Benefit provisions and all other requirements are established by Chapter 121, Florida Statutes and any amendments thereto can be made only by an act of the Florida Legislature.

MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Notes to Financial Statements (continued)

Years Ended June 30, 2009 and 2008

Employees of the FRS may participate in either the Public Employee Optional Retirement Program (the “Investment Plan”), a defined contribution retirement program or in the defined benefit retirement plan (“Pension Plan”).

Eligible members of the Investment Plan are vested after one year of service and are directed to choose their investment product with a third party administrator selected by the State board of Administration.

Employees participating in the Pension Plan have their benefits computed on the basis of age, average final compensation and service credit. Benefits under the Plan vest after six years of service. Employees who retire at or after age 62, with six years of credited service, are entitled to an annual retirement benefit, payable monthly for life. A post-retirement health insurance subsidy is also provided to eligible retired employees through the FRS defined benefit retirement plan.

The State of Florida annually issues a publicly available financial report that includes financial statements and required supplementary information for the FRS. A copy of the latest available report may be obtained by writing to the State of Florida Division of Retirement, P.O. Box 9000, Tallahassee, Florida 32315-9000 or from the website [www.frs.state.fl.us](http://www.frs.state.fl.us).

The FRS is noncontributory for members. Contributions, required by all governmental employers, are based on statewide contribution rates. For fiscal year 2009, the contribution rate range – as defined by the State of Florida – was between 9.85% and 13.12% of gross salaries. For fiscal years ended June 30, 2009 and 2008, the Authority contributed 100% of the required contributions. These contributions aggregated \$367,353 and \$343,548, respectively. Therefore, the Authority does not have a pension asset or liability as stipulated in GASB Statements No. 27 and No. 50.

**Note 8 - Commitments and Contingencies**

At June 30, 2009, the Authority had in process various uncompleted construction projects with remaining balances totaling \$85,846,547.

In addition, the Authority is obligated under a lease agreement with the State of Florida, expiring in the year 2047, to make annual payments of \$300 for its headquarters office building.

As of June 30, 2009, there was one claim and one lawsuit pending against the Authority. In the opinion of management and legal counsel, the ultimate outcome of such actions will not have a material effect on the financial condition of the Authority.

**Note 9 - Related Party Transactions**

As of June 30, 2009, one of the Authority’s board members immediate family served as a consultant to a construction contractor of the Authority. The contract was executed May 2009 for a contract amount of \$15.0 million.

**Note 10 – Subsequent Events**

None.



**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Schedule of Calculation of Net Revenue and Financial Ratios

As Defined and Required by the Trust Indenture

Year Ended June 30, 2009

REVENUE:

|                                    |                |
|------------------------------------|----------------|
| Tolls                              | \$ 113,075,908 |
| * Investment income                | 13,586,265     |
| Contributions for capital projects | 1,636,576      |
| Other                              | <u>788,848</u> |
|                                    | 129,087,597    |

EXPENSES:

|                                        |                             |
|----------------------------------------|-----------------------------|
| Operating, general, and administrative | <u>34,577,347</u>           |
| Net revenue                            | <u><u>\$ 94,510,250</u></u> |

|                                               |                      |
|-----------------------------------------------|----------------------|
| ACTUAL DEBT SERVICE FOR ALL BONDS OUTSTANDING | <u>\$ 54,505,131</u> |
|-----------------------------------------------|----------------------|

|                                                                                                                           |      |
|---------------------------------------------------------------------------------------------------------------------------|------|
| RATIO OF NET REVENUE TO DEBT SERVICE FOR ALL BONDS OUTSTANDING<br>(minimum ratio requirement per trust indenture is 1.20) | 1.73 |
|---------------------------------------------------------------------------------------------------------------------------|------|

|                                                                                                                        |                      |
|------------------------------------------------------------------------------------------------------------------------|----------------------|
| ACTUAL DEBT SERVICE AND FUND PAYMENTS AS SPECIFIED BY TRUST INDENTURE<br>(excludes debt service reserve replenishment) | <u>\$ 67,714,127</u> |
|------------------------------------------------------------------------------------------------------------------------|----------------------|

|                                                                                                                           |      |
|---------------------------------------------------------------------------------------------------------------------------|------|
| RATIO OF NET REVENUE TO CERTAIN DEBT SERVICE AND FUND PAYMENTS<br>(minimum ratio requirement per trust indenture is 1.00) | 1.40 |
|---------------------------------------------------------------------------------------------------------------------------|------|

|                                                                                                                        |                      |
|------------------------------------------------------------------------------------------------------------------------|----------------------|
| ACTUAL DEBT SERVICE AND FUND PAYMENTS AS SPECIFIED BY TRUST INDENTURE<br>(includes debt service reserve replenishment) | <u>\$ 70,710,157</u> |
|------------------------------------------------------------------------------------------------------------------------|----------------------|

|                                                                                                                           |      |
|---------------------------------------------------------------------------------------------------------------------------|------|
| RATIO OF NET REVENUE TO CERTAIN DEBT SERVICE AND FUND PAYMENTS<br>(minimum ratio requirement per trust indenture is 1.00) | 1.34 |
|---------------------------------------------------------------------------------------------------------------------------|------|

\* Investment income reflected above excludes unrealized gain of \$289,659.

**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY**  
**D/B/A MIAMI-DADE EXPRESSWAY AUTHORITY AND MDX**

Schedule of Toll Revenues and Expense Summary

(In Thousands)

Years Ended June 30,

|     | <b>Fiscal Year</b> | <b>Revenues</b> |                                       | <b>Total Revenues</b> | <b>Expenses</b>   |                    |                                 | <b>Total Expenses</b> | <b>Net Revenues</b> |
|-----|--------------------|-----------------|---------------------------------------|-----------------------|-------------------|--------------------|---------------------------------|-----------------------|---------------------|
|     |                    | <b>Toll</b>     | <b>Investment &amp; Miscellaneous</b> |                       | <b>Operations</b> | <b>Maintenance</b> | <b>Admin. &amp; Cont. Svcs.</b> |                       |                     |
| (1) | 2009               | \$ 113,075      | \$ 16,013                             | \$ 129,088            | \$ 22,536         | \$ 4,599           | \$ 7,443                        | \$ 34,578             | \$ 94,510           |
| (2) | 2008               | 115,799         | 20,868                                | 136,667               | 20,057            | 3,904              | 5,551                           | 29,512                | 107,155             |
| (3) | 2007               | 82,030          | 24,289                                | 106,319               | 16,340            | 7,343              | 5,812                           | 29,495                | 76,824              |
|     | 2006               | 77,462          | 12,904                                | 90,366                | 13,649            | 2,379              | 5,341                           | 21,369                | 68,997              |
|     | 2005               | 58,652          | 5,742                                 | 64,394                | 7,884             | 5,047              | 4,416                           | 17,347                | 47,047              |
|     | 2004               | 49,411          | 2,183                                 | 51,594                | 7,844             | 4,743              | 5,070                           | 17,657                | 33,937              |
|     | 2003               | 44,259          | 4,464                                 | 48,723                | 8,836             | 6,565              | 3,164                           | 18,565                | 30,158              |

(1) Fiscal Year 2009 investment income is net of unrealized gain of \$289,659.

(2) Fiscal Year 2008 investment income is net of arbitrage expense of \$464,813 and of unrealized gain of \$538,095.

(3) Fiscal Year 2007 maintenance expenses includes \$4,105 million in reimbursable hurricane expenses related to Hurricane Katrina and Wilma.

[Statistical Section Intentionally Omitted]

## **APPENDIX E**

### **THE AMENDED AND RESTATED INDENTURE AND FORM OF SIXTH SUPPLEMENTAL INDENTURE**

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# AMENDED AND RESTATED TRUST INDENTURE\*

From

Miami-Dade County Expressway Authority  
(f/k/a Dade County Expressway Authority)

To

The Bank of New York, as Trustee

Originally Dated as of November 15, 1996

and

Amended and Restated as of June 15, 2002

\* Subsequent amendments to the Amended and Restated Trust Indenture are shown in footnotes.

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## AMENDED AND RESTATED TRUST INDENTURE

This Amended and Restated Trust Indenture is dated as of June 15, 2002 (as the same may be amended or supplemented from time to time, this "Indenture"), and is from Miami-Dade County Expressway Authority, fka Dade County Expressway Authority (together with its successors and assigns as permitted under this Indenture, the "Authority"), a body politic and corporate, a public instrumentality and an agency of the State of Florida (the "State") existing under the Florida Expressway Authority Act (Part I of Chapter 348, Florida Statutes, as amended) (together with any successor provisions of law, the "Act"), to The Bank of New York, a New York banking corporation, as trustee (together with any successor permitted under this Indenture, the "Trustee"). This Indenture amends and restates the Trust Indenture dated as of November 15, 1996 (the "Original Indenture") from Dade County Expressway Authority to the Trustee, which previously had been amended and supplemented by the First Supplemental Trust Indenture (the "First Supplemental Indenture"), the Second Supplemental Trust Indenture (the "Second Supplemental Indenture") and the Third Supplemental Trust Indenture (the "Third Supplemental Indenture") dated as of October 15, 1999, January 1, 2000 and June 1, 2001, respectively, and from the Authority to the Trustee (as so amended and supplemented, the "Prior Indenture").

## WITNESSETH:

WHEREAS, the Authority was established by Ordinance No. 94-215, adopted on December 13, 1994, by the Board of County Commissioners of Dade County, Florida, pursuant to the Act; and

WHEREAS, the Act sets forth the Authority's purposes and powers, which include, among others, the powers to: (1) acquire, hold, construct, improve, maintain, operate, own, and lease the expressways located in Dade County and identified more particularly in Exhibit A hereto (together with certain non-roadway assets identified more particularly on Exhibit B hereto and together with any improvements, as hereinafter defined, the "System"); (2) fix, alter, change, establish, and collect tolls, rates, fees, rentals, and other charges for the services and facilities of the System; (3) utilize surplus revenues to finance or refinance the planning, design, acquisition, construction, maintenance or improvement of a public transportation facility or transportation facilities located in Dade County, Florida or any programs or projects that will improve the levels of service on the System; and (4) borrow money, make and issue negotiable notes, bonds, refunding bonds and other evidence of indebtedness to finance the System; and

WHEREAS, the State of Florida, Department of Transportation (together with any successor to its powers and functions, the "Department") transferred operational and financial control of the System in perpetuity from the Department to the Authority on December 10, 1996 upon the terms and conditions set forth in the Transfer Agreement dated December 10, 1996 (as amended and as the same may be further amended or supplemented from time to time the "Transfer Agreement") between the Department and the Authority; and

WHEREAS, simultaneously with the entry by the Department and the Authority into the Transfer Agreement, the Department and the Authority entered into the following additional agreements with respect to the System, each dated December 10, 1996: (a) Toll Operations and Maintenance Agreement (as the same may be amended or supplemented from time to time, the "Toll Operations and Maintenance Agreement"); (b) Roadway Operations and Maintenance Agreement (as the same may be amended or supplemented from time to time, the "Roadway Operations and Maintenance Agreement"); and (c) SunPass Agreement (as the same may be amended or supplemented from time to time, the "SunPass Agreement"); and

WHEREAS, prior to the entry by the Authority and the Trustee into the Original Indenture, the System was financed with bonds of the State of Florida denominated Full Faith and Credit Dade County Road Refunding Bonds, Series 1993 (the "State Bonds") then outstanding in the aggregate principal amount of \$91,300,000 that were supported by revenues of the System and other security; and

WHEREAS, the Authority is issued on December 10, 1996 under the Original Indenture, \$80,000,000 in aggregate principal amount of its Dade County Expressway Authority (Florida) Toll System Revenue Bonds, Series 1996 (Taxable) (the "Series 1996 Bonds") and applied a portion of the proceeds of the Bonds and took certain other actions on that date to acquire operational and financial control of the System in perpetuity by defeasing all of the outstanding State Bonds pursuant to the terms and provisions of the Escrow Deposit Agreement dated as of November 15, 1996 (as the same may be amended or supplemented from time to time, the "Escrow Agreement") between the Authority and the State Board of Administration of Florida (together with any successor to its powers and functions, the "SBA"); and

WHEREAS, it was a precondition to the transfer of the System pursuant to the terms of the Transfer Agreement that the 1989 Lease-Purchase Agreement Covering Dade County Road Project dated as of April 5, 1989 (the "Lease-Purchase Agreement") among the Department, the Division of Bond Finance of the SBA (formerly known as the Division of Bond Finance of the Department of General Services of the State of Florida) (the "Division") and Dade County, Florida (the "County") be terminated; and

WHEREAS, the Department, the Division and the County terminated the Lease-Purchase Agreement effective as of and on December 10, 1996; and

WHEREAS, pursuant to the Transfer Agreement, the Department transferred certain moneys to the Authority for application in the manner hereinafter provided; and

WHEREAS, the Authority has also previously issued under the Prior Indenture: (i) \$10,000,000 in principal amount of its Miami-Dade County Expressway Authority Toll System Revenue Bond (the "Series 1999 Bond") as a series of Additional Bonds (as defined in the Prior Indenture); (ii) \$150,000,000 in aggregate principal amount of its Miami-Dade County Expressway Authority Toll System Revenue Bonds, Series 2000 (the "Series 2000 Bonds"), as a series of Additional Bonds; and (iii) \$89,345,000 in aggregate principal amount of its Miami-Dade County Expressway Authority (Florida) Toll System Refunding Revenue Bonds, Series 2001A (the "Series 2001A Bonds"); such Series 1999 Bond, Series 2000 Bonds and Series

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(b) the Transfer Agreement; provided, that the assignment made by this clause shall not impair or diminish any obligation of the Authority under the provisions of the Transfer Agreement;

(c) all Funds, Accounts and Subaccounts (each as hereinafter defined) established pursuant to this Indenture other than the Rebate Fund (as hereinafter defined) and all moneys and securities and earnings in such funds, accounts and subaccounts; and

(d) Any and all other contracts, instruments, moneys, revenues or sources of revenues (including, without limitation, pledged tax receipts of any type and from any source), securities and property furnished from time to time to the Trustee by the Authority or on behalf of the Authority or by any other Persons to be held by the Trustee as part of the Trust Estate under the terms of this Indenture;

But in trust nevertheless, for the equal and proportionate benefit and security of the Bonds issued and to be issued under the Prior Indenture and hereunder and secured by this Indenture, including any Bonds hereafter issued, without preference, priority or distinction as to participation in the lien, benefit and protection hereof of any one Bond over any other or from the others by reason of priority in the issue or negotiation thereof or by reason of the date or dates of maturity thereof, or for any other reason whatsoever (except as expressly provided in this Indenture), so that each and all of the Bonds shall have the same right, lien and privilege under this Indenture and shall be equally secured hereby, with the same effect as if the same had all been made, issued and negotiated upon the delivery hereof (all except as expressly provided in this Indenture);

Provided, however, that prior to the occurrence of an Event of Default (as hereinafter defined) the lien on and pledge of the Trust Estate conferred by this Indenture in favor of the Trustee shall be subject in all respects to the provisions of this Indenture that require the application of Revenues or other moneys to the funds created under this Indenture, including in each case any account or subaccount established therein, prior to the application of such Revenues or other moneys for the payment of the principal or redemption price of and the interest on the Bonds. No Owner of any Bond has the right to compel any exercise of the taxing power of any unit of government to pay the principal or Redemption Price of the Bonds or the interest thereon.

Notwithstanding the foregoing provisions of these Granting Clauses:

(i) moneys in and investments of the Rebate Fund (as hereinafter defined) shall not be pledged to the payment of the Bonds and shall be applied solely to the payment of rebate amounts due to the United States of America with respect to Bonds or payments in lieu thereof or as otherwise provided in this Indenture; and

(ii) upon the occurrence of an Event of Default (as hereinafter defined) the Trustee shall have a first lien on amounts held pursuant to Section 9.04.

Provided Further, however, that these presents are upon the condition that, if the Authority, or its successors, shall well and truly pay or cause to be paid, or provide for the

2001A Bonds being secured by the Trust Estate (as hereinafter defined) on a parity with the lien thereon in favor of the Series 1996 Bonds and any other series of Additional Bonds that may be issued from time to time hereafter; and

WHEREAS, all things necessary to make the Series 1996 Bonds, the Series 1999 Bond, the Series 2000 Bonds and the Series 2001A Bonds previously authenticated by the Trustee and issued under the Prior Indenture and when authenticated by the Trustee and issued as in this Indenture provided, the valid, binding and legal obligations of the Authority according to the import thereof, and to constitute the Prior Indenture, as amended and restated by this Indenture, a valid pledge of and grant of a lien on the Trust Estate (as hereinafter defined), subject to the provisions of this Indenture, for the purpose of providing for the operation and maintenance of the System and to secure the payment of the principal of, premium, if any, and interest on the Bonds (as hereinafter defined) have been done and performed, in due form and time, as required by law; and

WHEREAS, the execution and delivery of this Indenture and the execution and issuance of the Series 1996 Bonds, the Series 1999 Bond, the Series 2000 Bonds and the Series 2001A Bonds, subject to the terms hereof, have in all respects been duly authorized by the Authority,

#### GRANTING CLAUSES

Now, Therefore, This Indenture Witnesseth:

That in order to provide for the acquisition, construction, installation, equipping, operation and maintenance of the System and to secure the payment of the principal of, premium, if any, and interest on all Bonds issued and to be issued under this Indenture, according to the import thereof, and to reimburse any Credit Provider and Liquidity Provider and any Reserve Facility Provider (each as hereinafter defined) for amounts owed to them under any Credit Facility, Liquidity Facility or Reserve Facility (each as hereinafter defined), respectively, but subject to the limitations set forth herein, and the performance and observance of each and every covenant and condition contained herein and in the Bonds, and for and in consideration of the premises and of the acceptance by the Trustee of the trusts hereby created, and of the purchase and acceptance of the Bonds by the respective Owners (as hereinafter defined) thereof, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, and for the purpose of fixing and declaring the terms and conditions upon which the Bonds shall be issued, authenticated, delivered, secured and accepted by all Persons who shall from time to time be or become Owners thereof, the Authority does hereby assign, pledge and grant a lien upon and a security interest (and does hereby confirm its prior assignment, pledge and grant of a lien upon and a security interest under the Prior Indenture) in all of its right, title and interest in and to the following described property, rights and interests (collectively, the "Trust Estate") to the Trustee and its successors in trust and assigns, to the extent provided in this Indenture:

(a) the Revenues (as hereinafter defined);

payment of all principal, premium, if any, and interest on the Bonds due or to become due thereon, at the times and in the manner stipulated therein and herein, then this Indenture and the rights hereby granted shall cease, terminate and be void, but shall otherwise be and remain in full force;

And it is hereby covenanted and agreed by and among the Authority, the Trustee and the Owners from time to time of the Bonds, that the 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 the Owners thereof, and the trusts and conditions upon which the moneys and securities hereby pledged are to be held and disposed of, which trusts and conditions the Trustee hereby accepts, are as follows:

#### ARTICLE I

##### DEFINITIONS

**SECTION 1.01. DEFINITIONS.** Unless the context otherwise requires, the terms defined in this Section 1.01 shall for all purposes hereof and of any amendment hereof or supplement hereto and of the Bonds and of any certificate, opinion, request or other document mentioned herein or therein have the meanings defined herein, the following definitions to be equally applicable to both the singular and plural forms of any of the terms defined herein:

"Account" shall mean any account created and maintained pursuant to this Indenture.

"Accountant" shall mean the independent certified public accountants or firm of independent certified public accountants retained by the Authority under the provisions of Section 7.05 to perform and carry out the duties imposed on the Accountant by this Indenture.

"Accreted Value" shall mean, as of any date of computation with respect to any Capital Appreciation Bond, an amount equal to the principal amount of such Capital Appreciation Bond at its initial offering plus the interest accrued on such Capital Appreciation Bond from the date of delivery to the original purchasers thereof to the Compounding Date next preceding the date of computation or the date of computation if a Compounding Date plus, with respect to matters related to the payment upon redemption or acceleration of the Capital Appreciation Bond, if such date of computation shall not be a Compounding Date, a portion of the difference between the Accreted Value as of the immediately preceding Compounding Date (or the date of original issuance if the date of computation is prior to the first Compounding Date succeeding the date of original issuance) and the Accreted Value as of the immediately succeeding Compounding Date, calculated based on the assumption that Accreted Value accrues during any period in equal daily amounts on the basis of a year of 360 days consisting of twelve months of thirty days each. Interest shall accrue on any Capital Appreciation Bond and be compounded periodically at such rate and at such times as provided for in any Supplemental Indenture relating to said Capital Appreciation Bond.

"Act" shall have the meaning ascribed to it in the introductory paragraph of this Indenture.

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"Additional Bonds" shall mean the Bonds issued pursuant to the provisions of Section 2.08 on a parity with Outstanding Bonds.

"Administrative Expenses" shall mean the reasonable and necessary general and administrative expenses of the Authority including salaries of Authority administrative personnel, any taxes which may be lawfully imposed on the System or its income or operations and reserves therefor, the amount necessary to compensate any Fiduciary in accordance with the provisions of this Indenture, including, but not limited to, Section 8.04, and any other administrative expenses required to be paid under the provisions of this Indenture or by law, as such expenses are determined to have been incurred in accordance with the method of accounting used in the preparation of the annual financial statements of the Authority including, to the extent so determined, expenses not annually recurring, but excluding: (i) any allowance for depreciation, or amortization; and (ii) any deposits or transfers to the credit of the Funds, Accounts or Subaccounts; provided, however, that to the extent such Administrative Expenses relate, all or in part, to a future period of time they shall be prospectively determined by reference to the Annual Budget, to the extent applicable to the future period, and to any projections authorized to be used herein, to the extent applicable to the future period.

"Alternate Credit Facility" shall mean a Credit Facility provided pursuant to the terms of Section 13.03.

"Alternate Credit Facility Date" shall have the meaning ascribed to it in Section 13.03.

"Alternate Liquidity Facility" shall mean a Liquidity Facility provided pursuant to the terms of Section 13.06.

"Alternate Liquidity Facility Date" shall have the meaning ascribed to it in Section 13.06.

"Amortization Requirements" shall mean the money required to be deposited in the Sinking Fund for the purpose of the mandatory redemption or payment at maturity of any Term Bonds issued pursuant to this Indenture, the specific amounts and times of such deposits to be as provided in Section 3.01 with respect to the Series 1996 Bonds and to be determined in the Supplemental Indenture authorizing the issuance of such Term Bonds.

"Annual Budget" shall mean the annual budget, as amended or supplemented, adopted or in effect for a particular Fiscal Year as provided in Section 5.04.

"Annual Repayment Requirements" shall mean, for any given Fiscal Year, the total of the following: (i) the Net Liabilities (as defined in the Transfer Agreement) payable by the Authority for such Fiscal Year as set forth in Exhibit F to the Transfer Agreement, if any; (ii) the SunPass Installation Costs (as defined in the SunPass Agreement) payable by the Authority for such Fiscal Year pursuant to the SunPass Agreement, if any; (iii) Environmental Liabilities (as defined in the Transfer Agreement) payable by the Authority for such Fiscal Year pursuant to the Transfer Agreement, if any; and (iv) Overruns (as defined in the Toll Operations and Maintenance Agreement and the Roadway Operations and Maintenance Agreement), if any. As used in this Indenture, clauses (i) and (ii) of the definition of Annual Repayment Requirements

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"Average Rate" shall mean the rate determined by dividing the total amount of interest paid on all Variable Rate Bonds for a given period by the average principal amount of all Variable Rate Bonds Outstanding during that period.

"Bonds" shall mean, collectively, Outstanding Series 1996 Bonds, the Outstanding Series 1999 Bond, Outstanding Series 2000 Bonds, Outstanding Series 2001A Bonds, Completion Bonds, Additional Bonds and Refunding Bonds.

"Bond Counsel" shall mean any firm of nationally recognized municipal bond attorneys selected by the Authority, including co-counsel to such firm, each of which shall be and experienced in the issuance of municipal bonds and matters relating to the exclusion of the interest thereon from gross income for purposes of federal income taxation.

"Bond Registrar" shall mean a bank or trust company, either within or without the State of Florida, designated as such by resolution of the Authority, which shall perform such functions as Bond Registrar as are required by this Indenture with respect to one or more Series of Bonds. Notwithstanding the preceding sentence, the Trustee shall be the initial Bond Registrar.

"Bondholder" (or "Owner") shall mean the registered owners of the Bonds as shown on the registration books of the Bond Registrar maintained pursuant to Section 2.04.

"Business Day" means any date other than (i) Saturday or Sunday, (ii) a day on which the Trustee, any Credit Provider or any Liquidity Provider is lawfully closed, (iii) a day on which the Federal reserve bank for the federal reserve district in which the Trustee or Tender Agent is located is closed; or (iv) a day on which the New York Stock Exchange is closed.

"Capital Appreciation Bonds" shall mean any Bonds as to which interest is compounded periodically on each Compounding Date and which are payable in an amount equal to the then current Accreted Value only at maturity, earlier redemption or other payment date therefor, all as designated by any Supplemental Indenture authorizing the issuance of such Bonds and which may be either Serial Bonds or Term Bonds.

"Capital Appreciation and Income Bonds" shall mean any Bonds as to which accruing interest is not paid prior to the Interest Commencement Date specified in any Supplemental Indenture authorizing the issuance of such Bonds and with respect to which, until said Interest Commencement Date, the Appreciated Value is compounded periodically on each Compounding Date.

"Capitalized Interest" shall mean proceeds of Bonds set aside to pay the interest costs on Bonds that will accrue during the construction of a Project or other specified period, the amount of which shall be set forth in the Supplemental Indenture authorizing the issuance of the Bonds, the proceeds of which shall be applied for such purpose.

"Chairman" shall mean the Person appointed to serve as the Chairman of the Authority or his designee or the Person succeeding to his principal function.

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shall constitute the Non-contingent Portion of the Annual Repayment Requirements and clauses (iii) and (iv) shall constitute the Contingent Portion of Annual Repayment Requirements.

"Appreciated Value" shall mean, with respect to any Capital Appreciation and Income Bond: (a) as of any date of computation prior to the Interest Commencement Date, an amount equal to the principal amount thereof on the date of original issuance plus the interest accrued on such Bond from the date of original issuance of such Bond to the Compounding Date next preceding the date of computation or the date of computation if a Compounding Date, such interest to compound periodically at the times and at the rate provided in any Supplemental Indenture authorizing the issuance of said Bond, plus, if such date of computation shall not be a Compounding Date, a portion of the difference between the Appreciated Value as of the immediately preceding Compounding Date (or the date of original issuance if the date of computation is prior to the first Compounding Date succeeding the date of original issuance) and the Appreciated Value as of the immediately succeeding Compounding Date calculated based upon an assumption that Appreciated Value accrues during any period in equal daily amounts on the basis of a year of 360 days consisting of twelve months of thirty days each; and (b) as of any date of computation on and after the Interest Commencement Date, the Appreciated Value on the Interest Commencement Date.

"Authority" shall have the meaning ascribed to it in the introductory paragraph to this Indenture.

"Authority Account" shall mean the Account by that name established in the General Fund.

"Authority Counsel" shall mean Greenberg Traurig, P.A., Edwards & Carstarphen and any other legal counsel appointed by the Authority to represent its legal interests.

"Authorized Denomination" means (a) in the case of the Series 1996 Bonds, (i) while the Series 1996 Bonds bear interest at a Daily, Weekly or Monthly Rates, \$100,000 and integral multiples of \$5,000 over \$100,000, and (ii) while the Series 1996 Bonds bear interest at a Quarterly, Semiannual, Extended or Fixed Rate, \$5,000, and integral multiples thereof, (b) in the case of the Series 1999 Bond, its unpaid principal balance from time to time, (c) in the case of the Series 2000 Bonds and the Series 2001A Bonds, \$5,000, and integral multiples thereof, and (d) in the case of other Series of Bonds, such denominations as shall be authorized in the Supplemental Indenture authorizing the issuance of such Bonds.

"Authorized Officer" shall mean, when used with respect to the Authority, the Chairman, the Vice Chairman, the Executive Director, and any other officer or employee of the Authority designated from time to time by resolution of the Authority as an Authorized Officer under this Indenture.

"Average Annual Debt Service Requirement" shall mean, as of any date and with respect to a particular Series of Bonds, the arithmetic average of the Principal and Interest Requirements in the then current and each succeeding Fiscal Year.

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"Code" shall mean the applicable provisions of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder.

"Completion Bonds" shall mean the Bonds issued pursuant to the provisions of Section 2.07 on a parity with Outstanding Bonds.

"Compounding Date" shall mean, with respect to any Capital Appreciation Bond and Capital Appreciation and Income Bond, the dates on which interest shall compound, as specified in any Supplemental Indenture authorizing the issuance of such Bonds.

"Construction Fund" shall mean the Fund of that name created and maintained pursuant to Section 4.01.

"Consulting Engineer" shall mean the engineer, engineering firm, traffic consultant or traffic consulting firm at the time retained by the Authority pursuant to Section 7.05 to carry out and perform the duties imposed on the Consulting Engineer by this Indenture. The Authority may retain the services of more than one Consulting Engineer to perform duties and services required of the Consulting Engineer under this Indenture.

"Continuing Disclosure Agreement" shall mean, with respect to one or more Series of Bonds, the Continuing Disclosure Agreement entered into between the Authority, the dissemination agent specified therein and such other Persons who are determined to be Obligated Persons (within the meaning of Rule 15c2-12 of the Securities and Exchange Commission) with respect to such Bonds, as same may be amended from time to time, in order to comply with Rule 15c2-12 of the Securities and Exchange Commission.

"Conversion Date" means:

- When used with respect to a Fixed Rate, the date on which a Fixed Rate becomes effective pursuant to Section 2.06(n); and
- When used with respect to any particular Variable Rate Period, the date on which such Rate Period first becomes effective pursuant to Section 2.06.

"Convertible Bonds" shall mean Bonds issued under this Indenture which are convertible, at the option of the Authority, into a form of Bonds which are permitted by this Indenture other than the form of such Bonds at the time they were issued.

"Corporation Rate" shall mean the rate of interest per annum borne by Provider Bonds, which shall equal the Prime Rate plus 1% or, if applicable the Default Rate; provided however that the Corporation Rate shall not exceed the lesser of 12% per annum or the maximum rate permitted by applicable law.

"Cost" shall mean, as applied to a Project, the aggregate cost of construction of the Project, and all obligations and expenses relating thereto, including all items of cost which are set forth in Section 4.03.

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"Counterparty" shall mean a financial institution whose long-term debt obligations, or whose payment obligations under a Hedge Agreement are guaranteed by an entity, whose senior long-term debt obligations are rated (on the date the Hedge Agreement is entered into) at least "A-" by S&P or "A3" by Moody's.

"County" shall have the meaning ascribed to it in the recitals to this Indenture.

"Credit Facility" shall mean the Initial Credit Facility and each and every other irrevocable letter of credit, policy of municipal bond insurance, surety bond, guaranty, purchase agreement, credit agreement or similar facility in which the entity providing such facility irrevocably agrees to provide funds to make payment of the principal of and interest on Bonds when due. The term "Credit Facility" shall also include and "Alternate Credit Facility."

"Credit Provider" shall mean the Initial Credit Provider and each and every other provider of a Credit Facility, if any, with respect to any Series of Bonds.

"Daily Rate" shall mean the interest rate determined for the Bonds for a Daily Rate Period pursuant to Section 2.06(c).

"Daily Rate Period" shall mean, while the Series 1996 Bonds bear interest at the Daily Rate, the period commencing on each Business Day to but excluding the following Business Day.

"Debt Service Reserve Fund" shall mean the Fund of that name created and maintained pursuant to Section 5.06.

"Debt Service Reserve Fund Deposit Requirement" shall mean an amount in each of the twelve successive months beginning with the month following any month in which any amount shall have been withdrawn from the Debt Service Reserve Fund (or drawn under a Reserve Facility) or a deficiency is determined to exist upon valuation of the Debt Service Reserve Fund pursuant to Section 6.02, equal to one-twelfth of the deficiency created by such withdrawal (or draw under a Reserve Facility) or resulting from such valuation until such deficiency is made up. In the case of a draw under the Initial Reserve Facility, such deficiency shall include all Policy Costs then due and owing under the Series 1996 Debt Service Reserve Fund Policy Agreement.

"Debt Service Reserve Fund Requirement" shall mean, as of any date of calculation, an amount equal to the least of: (i) the maximum Principal and Interest Requirements on the Bonds in the current or any future Fiscal Year for the Bonds; (ii) 125% of the Average Annual Debt Service Requirement for the Bonds; or (iii) 10% of the proceeds of the Bonds. The Debt Service Reserve Fund Requirement may be satisfied, in whole or in part, by the deposit of a Reserve Facility.

"Default Rate" shall mean, with respect to Provider Bonds, a rate of interest per annum equal to the Prime Rate plus 3%.

"Department" shall have the meaning ascribed to it in the recitals to this Indenture.

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"Escrow Agent" shall mean a bank or trust company, either within or without the State of Florida, having fiduciary powers and designated as Escrow Agent in an Escrow Deposit Agreement and performing such functions as are required by such Escrow Deposit Agreement.

"Escrow Agreement" shall have the meaning ascribed to it in the recitals to this Indenture. The Escrow Agreement shall not be considered to be an Escrow Deposit Agreement within the meaning of this Indenture.

"Escrow Deposit Agreement" shall mean an Escrow Deposit Agreement, by and between the Authority and an Escrow Agent, pursuant to which cash and Escrow Securities will be held by the Escrow Agent to provide for payment, in whole or in part, of one or more specified Series of Bonds.

"Escrow Securities" shall mean cash, direct non-callable obligations of the United States of America and securities fully and unconditionally guaranteed as to the timely payment of principal and interest by the United States of America, to which direct obligations or guarantee the full faith and credit of the United States of America has been pledged, Refcorp interest strips, CATS, TIGRS, STRPS, or defeased municipal bonds rated "AAA" by S&P or "Aaa" by Moody's (or any combination thereof). Also, "Escrow Securities" shall include United States Agency for International Development securities fully and unconditionally guaranteed as to the payment of principal and interest by the United States of America, where such securities shall be scheduled to mature at least fifteen days prior to the date on which the maturing principal of and interest on such securities are required to pay when due the principal of and premium, if any, and interest due and to become due on Bonds deemed paid within the meaning of Section 12.01 of this Indenture on or prior to the redemption date or maturity date thereof, as the case may be.

"Event of Bankruptcy" means the filing of a petition in bankruptcy or the commencement of a proceeding under the United States Bankruptcy Code pursuant to Sections 301 or 303 thereof by or against the Authority.

"Event of Default" shall have the meaning ascribed to it in Section 9.02.

"Extended Rate" shall mean the interest rate determined for the Series 1996 Bonds for an Extended Rate Period pursuant to Section 2.06(h).

"Extended Rate Period" shall mean, while the Series 1996 Bonds bear interest at the Extended Rate, the period commencing on the Extended Rate Conversion Date and on the first Business Day of the calendar month following the last day of the prior Rate Period, extending for a period of one year or integral multiples of six months in excess of one year as established by the Remarketing Agent and ending on a day which is the last day preceding the first Business Day of a calendar month.

"Fiduciary" shall mean, collectively, the Trustee, Bond Registrar and Paying Agent, or, as the context may require, any one of them.

"First Supplemental Indenture" shall have the meaning ascribed to it in the introductory paragraph of this Indenture.

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"Department Operation and Maintenance Expenses" shall mean, for a given period, Operation and Maintenance Expenses incurred by the Department pursuant to the Toll Operations and Maintenance Agreement, the Roadway Operations and Maintenance Agreement and the SunPass Agreement, as such amounts have been determined by the Authority with reference to the Annual Budget and in accordance with such agreements.

"Depository" shall mean any bank, savings association or trust company duly authorized by law to engage in its business and to receive Authority funds and designated by an Authorized Officer as a depository of moneys under the provisions of this Indenture.

"Deposit Day" shall mean the day on or before the twenty-fifth (25th) day of each month (or such other day that may be designated in a Supplemental Indenture as a "Deposit Day" in respect of a Series of Bonds) on which day a withdrawal from the Revenue Fund and a deposit to one or more other Funds, Accounts or Subaccounts is required to accomplish the payments and transfers required by such Supplemental Indenture.

"Direct Participant" shall mean a participant in the DTC Book-Entry Only System on whose DTC accounts ownership interests in securities are credited.

"DTC" means The Depository Trust Company, New York New York, and its successors and assigns.

"Eligible Funds" means:

(a) Bonds proceeds deposited with the Trustee contemporaneously with the issuance and sale of Bonds (other than proceeds of sale of Bonds to the Authority) and which were continuously thereafter subject to the lien of this Indenture in a separate and segregated fund, account or subaccount established hereunder in which no moneys which were not Eligible Funds were at any time held while such Bond proceeds were held therein, together with the investment earnings thereon;

(b) Moneys (i) held in any Fund, Account or Subaccount in which no other moneys which are not Eligible Funds are held, and (ii) which have been on deposit with the Trustee for at least three hundred sixty-six (366) consecutive days during which period no Event of Bankruptcy shall have occurred, together with the investment earnings thereon;

(c) Proceeds of a drawing under the Credit Facility or the Liquidity Facility; and

(d) Proceeds from the issuance and sale of Refunding Bonds and any other moneys deposited with the Trustee if there is delivered to the Trustee at the time of the issuance and sale of such Refunding Bonds or the deposit of such other moneys with the Trustee a written opinion of nationally recognized bankruptcy counsel to the effect that payments with such proceeds or other moneys, as the case may be, of principal of, premium, if any, or interest on the Bonds would not be avoidable transfers under the United States Bankruptcy Code should an Event of Bankruptcy hereafter occur.

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"Fiscal Year" shall mean the period established as the Authority's fiscal year, presently commencing July 1 of each year and concluding on June 30 of the following year, as the same may be changed from time to time by resolution of the Authority, a copy of which shall have been provided to the Trustee.

"Fitch" shall mean Fitch Investors Service, L.P. and its successors and assigns, and, if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, "Fitch" shall be deemed to refer to any other nationally recognized securities rating agency designated by the Authority by written notice of an Authorized Officer to the Trustee.

"Fixed Rate" means an interest rate to be determined for the Series 1996 Bonds pursuant to Section 2.06(p).

"Fixed Rate Period" means the period of time during which the Series 1996 Bonds bear interest at a Fixed Rate.

"Fund" shall mean any fund created and maintained pursuant to this Indenture.

"General Account" shall mean the Account of that name established in the General Fund.

"General Fund" shall mean the Fund of that name created and maintained pursuant to Section 5.06.

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

"Hedge Agreement" shall mean the Series 1996 Cap Agreement and shall also include an interest rate exchange agreement, an interest rate swap agreement, a forward purchase contract, a put option contract, a call option contract or any other financial product which is used by the Authority as a hedging device with respect to its obligation to pay debt service on any of the Bonds, entered into between the Authority and a Counterparty; provided that such arrangement shall be specifically designated in a certificate of the Executive Director as a "Hedge Agreement" for purposes of this Indenture; and provided further that, at the time of entering into such Hedge Agreement, the Authority shall have obtained written evidence that the Counterparty satisfies the requirements for a Counterparty set forth in the definition of such term in this Article I.

"Hedge Charges" shall mean charges payable by the Authority to a Counterparty upon the execution, renewal or termination of any Hedge Agreement and any periodic fee payable by the Authority to keep such Hedge Agreement in effect and other payments required thereby.

"Hedge Obligations" shall mean net payments required to be made by the Authority under a Hedge Agreement from time to time as a result of fluctuation in hedged interest rates, or fluctuation in the value of any index of payment.

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"Hedge Receipts" shall mean net payments received by the Authority from a Counterparty under a Hedge Agreement.

"Improvements" shall mean any extension, enlargement, improvement, equipping, construction, renovation, repair, replacement, rehabilitation or acquisition of all or any portion of the System, but only to the extent that the same shall have been determined by resolution of the Authority to be or to become a part of the System.

"Indenture" shall have the meaning ascribed to it in the introductory paragraph hereof.

"Initial Credit Facility" shall mean the municipal bond new issue insurance policy issued by the Initial Credit Provider that guarantees payment of principal of and interest on the Series 1996 Bonds.

"Initial Credit Provider" shall mean Financial Guaranty Insurance Company, a New York stock insurance company, or any successor thereto.

"Initial Liquidity Facility" shall mean the Standby Bond Purchase Agreement dated as of December 1, 1996 between the Trustee and the Initial Liquidity Provider, as the same may be amended or supplemented from time to time in accordance with its terms.

"Initial Liquidity Provider" shall mean FGIC Securities Purchase, Inc., a Delaware corporation, or any successor thereto.

"Initial Reserve Facility" shall mean the municipal bond debt service reserve fund policy issued by the Initial Reserve Facility Provider that guarantees payment of an amount up to 50% of the Debt Service Reserve Fund Requirement as calculated with respect to the Series 1996 Bonds.

"Initial Reserve Facility Provider" shall mean Financial Guaranty Insurance Company, a New York stock insurance company, or any successor thereto.

"Interest Commencement Date" shall mean, with respect to any particular Capital Appreciation and Income Bonds, the date specified in any Supplemental Indenture authorizing the issuance of such Bonds (which date must be prior to the maturity date for such Bonds) after which interest accruing on such Bonds shall be payable on a periodic basis, with the first such payment date being the applicable Interest Payment Date immediately succeeding such Interest Commencement Date.

"Interest Payment Date" shall mean, with respect to the Series 1996 Bonds:

- (a) When the Series 1996 Bonds bear interest at the Daily, Weekly or Monthly Rate, the first Business Day of each calendar month commencing with the first Business Day of the calendar month following the initial issuance and delivery of the Series 1996 Bonds;

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- (c) Direct obligations of any state of the United States of America or any subdivision or agency thereof whose unsecured, uninsured and unguaranteed general obligation debt is rated, at the time of purchase, "A" or better by Moody's and "A" or better by S&P, or any obligation fully and unconditionally guaranteed by any state, subdivision or agency whose unsecured, uninsured and unguaranteed general obligation debt is rated, at the time of purchase, "A" or better by Moody's and "A" or better by S&P;

- (d) Commercial paper (having original maturities of not more than 270 days) rated, at the time of purchase, "P-1" by Moody's and "A-1" or better by S&P;

- (e) Federal funds, unsecured certificates of deposit, time deposits or bankers acceptances (in each case having maturities of not more than 365 days) of any domestic bank including a branch office of a foreign bank which branch office is located in the United States, provided legal opinions are received to the effect that full and timely payment of such deposit or similar obligation is enforceable against the principal office or any branch of such bank, which, at the time of purchase, has a short-term "Bank Deposit" rating of "P-1" by Moody's and "Short-Term CD" rating of "A-1" or better by S&P;

- (f) Deposits of any bank or savings and loan association which has combined capital, surplus and undivided profits of not less than \$3 million, provided such deposits are continuously and fully insured by the Bank Insurance Fund or the Savings Association Insurance Fund of the Federal Deposit Insurance Corporation;

- (g) Investments in money market funds rated "AAAm" or "AAAm-G" by S&P;

- (h) Repurchase agreements collateralized by Direct Obligations, GNMA's, FNMAs or FHLMCs with any registered broker/dealer subject to Securities Investors' Protection Corporation jurisdiction or any commercial bank insured by the Federal Deposit Insurance Corporation, if such broker/dealer or bank has an unsecured, unguaranteed obligation rated "P-1" or "A3" or better by Moody's and "A-1" or "A-" or better by S&P, provided:

- (i) a master repurchase agreement or specific written repurchase agreement governs the transaction;

- (ii) the securities are held free and clear of any lien by the Trustee or an independent third party acting solely as agent ("Agent") for the Trustee, and such third party is (A) a Federal Reserve Bank, (B) a bank which is a member of the Federal Deposit Insurance Corporation and which has combined capital, surplus and undivided profits of not less than \$50 million, or (C) a bank approved in writing for such purpose by the Credit Provider, and the Trustee shall have received written confirmation from such third party that it holds such securities, free and clear of any lien, as agent for the Trustee;

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- (b) When the Series 1996 Bonds bear interest at the Quarterly Rate, the first Business Day of the third calendar month following the Quarterly Rate Conversion Date and subsequently the first Business day of each third calendar month thereafter;

- (c) When the Series 1996 Bonds bear interest at the Semiannual or Extended Rate, the first Business Day of the sixth month following the Semiannual or Extended Rate Conversion Date and subsequently the first Business Day of each sixth calendar month thereafter; and

- (d) When the Series 1996 Bonds bear interest at the Fixed Rate, each January 1 and July 1 after the Fixed Rate Conversion Date.

"Interest Payment Date" means, with respect to the Series 1999 Bond, the Series 2000 Bonds and the Series 2001A Bonds, each January 1 and July 1, commencing January 1, 2000 for the Series 1999 Bond, commencing on July 1, 2000 for the Series 2000 Bond, and commencing on January 1, 2002 for the Series 2001A Bond. "Interest Payment Date" means with respect to other Series of Bonds, the dates on which interest on such Bonds is payable as specified in the Supplemental Indenture authorizing the issuance of such Bonds.

"Investment Securities" shall mean any of the following to the extent the same are at the time legal for investment by the Authority pursuant to applicable law and any other investment securities approved by the Credit Provider:

- (a) Direct obligations of the United States of America and securities fully and unconditionally guaranteed as to the timely payment of principal and interest by the United States of America, provided, that the full faith and credit of the United States of America must be pledged to any such direct obligation or guarantee ("Direct Obligations");

- (b) Direct obligations and fully guaranteed certificates of beneficial interest of the Export-Import Bank of the United States; consolidated debt obligations and letter of credit-backed issues of the Federal Home Loan Banks; the Federal Home Loan Mortgage Corporation ("FHLMCs"); debentures of the Federal Housing Administration; mortgage-backed securities (except stripped mortgage securities which are valued greater than par on the portion of unpaid principal) and senior debt obligations of the Federal National Mortgage Association ("FNMA's"); participation certificates of the General Services Administration; guaranteed mortgage-backed securities and guaranteed participation certificates of the Government National Mortgage Association ("GNMA's"); guaranteed participation certificates and guaranteed pool certificates of the Small Business Administration; debt obligations and letter of credit-backed issues of the Student Loan Marketing Association; local authority bonds of the U.S. Department of Housing & Urban Development; guaranteed Title XI financings of the U.S. Maritime Administration; guaranteed transit bonds of the Washington Metropolitan Area Transit Authority; and Resolution Funding Corporation securities;

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- (iii) a perfected first security interest under the Uniform Commercial Code, or book entry procedures prescribed at 31 C.F.R. 306.1 et seq. or 31 C.F.R. 350.0 et seq. in such securities is created for the benefit of the Trustee;

- (iv) the repurchase agreement has a term of 180 days or less, and the Trustee or the Agent will value the collateral securities no less frequently than weekly and will liquidate the collateral securities if any deficiency in the required collateral percentage is not restored within two business days of such valuation; and

- (v) the fair market value of the securities in relation to the amount of the repurchase obligation, including principal and interest, is equal to at least 103%;

- (vi) Investment agreements, the issuer, form and substance of which are specifically approved by the Credit Provider; and

- (vii) The Local Government Surplus Funds Trust Fund administered by the State Board of Administration of Florida.

"Lease-Purchase Agreement" shall have the meaning ascribed to it in the recitals to this Indenture.

"Liquidity Facility" shall mean a letter of credit, policy of insurance, surety bond, guaranty, purchase agreement, credit agreement or similar facility in which the entity providing such facility agrees to provide funds to pay the purchase price of, or agrees to purchase, Put Bonds upon their tender by the Owners thereof. The term "Liquidity Facility" shall also include an Alternate Liquidity Facility.

"Liquidity Provider" shall mean the Initial Liquidity Provider and each other provider of a Liquidity Facility, if any, with respect to any Series of Bonds.

"Maximum Rate" shall mean, with respect to the Series 1996 Bonds prior to the conversion of the Series 1996 Bonds to the Fixed Rate, 15% so long as the Series 1996 Bonds are Taxable Bonds or 12% so long as the Series 1996 Bonds are not Taxable Bonds, and, thereafter, the highest rate of interest allowed by law. "Maximum Rate" shall mean, with respect to other Series of Bonds, the lower of the highest rate of interest allowed by law and such rate as shall be determined as the "Maximum Rate" for such Bonds in the Supplemental Indenture authorizing the issuance thereof.

"Monthly Rate" shall mean the interest rate determined for a Monthly Rate Period pursuant to Section 2.06(e).

"Monthly Rate Period" shall mean, while the Series 1996 Bonds bear interest at the Monthly Rate, the period commencing on the first Business Day of each month to but excluding the first Business Day of the following month.

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"Moody's" shall mean Moody's Investors Service, Inc. and its successors and assigns, and, if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, "Moody's" shall be deemed to refer to any other nationally recognized securities rating agency designated by the Authority by written notice of an Authorized Officer to the Trustee.

"Net Proceeds" shall mean proceeds from any insurance, condemnation, performance bond, federal or state flood disaster assistance or any other financial guaranty (except a Credit Facility, Liquidity Facility or a Reserve Facility) paid with respect to the System 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 moneys payable from any appropriation made by the Authority with respect to such self-insurance.

"Net Revenues" shall mean, for any period, the amount of the excess of Revenues over the amounts paid from the Revenue Fund for Operation and Maintenance Expenses during such period.

"Non-contingent Portion of Annual Repayment Requirements" shall have the meaning ascribed to it in the definition of Annual Repayment Requirements.

"Obligated Person" shall have the meaning ascribed to it in Rule 15c2-12 of the Securities and Exchange Commission.

"Operation and Maintenance Expenses" shall mean the reasonable and necessary Administrative Expenses (but only to the extent the same otherwise constitute Operation and Maintenance Expenses within the meaning of this definition), Department Operation and Maintenance Expenses (but only to the extent the same otherwise constitute Operation and Maintenance Expenses within the meaning of this definition) and the reasonable and necessary expenses of maintenance, repair and operation of the System and its toll facilities, including, without limitation, all ordinary and usual expenses of maintenance and repair, insurance premiums, engineering expenses, legal expenses, the costs of collecting and accounting for Tolls, employee bond premiums, payments in satisfaction of the obligations of the Authority under Section 7.15, amounts due in respect of fees and expenses under the Payment Agreement or any similar agreement with respect to a Credit or Liquidity Facility, and any other similar expenses required to be paid with respect to the System under the provisions of this Indenture or by law, as such expenses are determined to have been incurred in accordance with the method of accounting used in the annual financial statements of the Authority, including, to the extent so determined, expenses not annually recurring, but excluding: (i) any reserves for extraordinary maintenance or repair; (ii) any allowance for depreciation or amortization; (iii) any deposits or transfers to the credit of the Funds and Accounts.

"Opinion of Bond Counsel" means a written opinion of Bond Counsel, in form and substance satisfactory to the Trustee, and except as may be otherwise specifically set forth in this Indenture, to the effect that the action proposed to be taken is authorized or permitted by the laws of the State and this Indenture and will not adversely affect the validity of the Bonds under the

laws of the State or, except to the extent that any of the Bonds shall be Taxable Bonds, the exclusion from gross income for federal income tax purposes of interest on any Bonds.

"Opinion of Counsel" means an opinion in writing signed by an attorney or firm of attorneys acceptable to the Trustee who may be Authority Counsel or other counsel.

"Outstanding" shall mean, when used with reference to the Bonds or any of them, all Bonds theretofore delivered except: (a) Bonds deemed to have been paid in accordance with Section 3.05 or Section 12.01; (b) Bonds in lieu of which other Bonds have been issued pursuant to the provisions hereof relating to Bonds destroyed, mutilated, stolen or lost; (c) Bonds paid, redeemed or delivered to or acquired by the Authority for cancellation; and (d) for purposes of any consent or other action to be taken hereunder by the Owners of a specified percentage of principal amount of Bonds, the Bonds held by or for the account of the Authority.

"Owner" (or "Bondholder") shall mean the registered owners of the Bonds as shown on the registration books of the Bond Registrar maintained pursuant to Section 2.04.

"Participant" means one of the entities which is a member of the Securities Depository and deposits securities, directly or indirectly in the Book-Entry System maintained pursuant to Section 2.12.

"Participating Underwriter" shall mean, with respect to a Series of Bonds, any original underwriter of such Bonds identified as a "Participating Underwriter" in a Continuing Disclosure Agreement relating to such Bonds.

"Paying Agent" shall mean a bank or trust company, either within or without the State of Florida, designated as such by resolution of the Authority, which shall perform such functions as Paying Agent as are required by this Indenture with respect to one or more Series of Bonds. Notwithstanding the preceding sentence, the Trustee shall be the initial Paying Agent for the Series 1996 Bonds.

"Payment Agreement" shall mean the Payment Agreement dated as of December 1, 1996 among the Authority, the Trustee and the Initial Liquidity Provider, as the same may be amended or supplemented from time to time in accordance with its terms. The Authority hereby authorizes and directs the Trustee to enter into the Payment Agreement.

"Payment Obligations" mean amounts owed by the Authority to the Credit Provider pursuant to the reimbursement agreement in effect between them and the amounts owed by the Authority to the Liquidity Provider pursuant to the reimbursement agreement in effect between them.

"Person" shall mean any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof, unless the context shall otherwise indicate.

"Policy Costs" shall have the meaning ascribed to it in the Series 1996 Debt Service Reserve Fund Policy Agreement.

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"Prime Rate" shall mean, with respect to Provider Bonds, the rate of interest publicly announced by JPMorgan Chase Bank or its successor from time to time as its "Prime Rate".

"Principal and Interest Requirements" shall mean the respective amounts which are required in each Fiscal Year to provide:

(a) for paying the interest on all Bonds then Outstanding which is payable on each Interest Payment Date in such Fiscal Year (the "Interest Requirement");

(b) for paying the principal of all Serial Bonds then Outstanding which is payable upon the maturity of Serial Bonds in such Fiscal Year (together with clause (c) immediately below, the "Principal Requirement"); and

(c) for paying the Amortization Requirements, if any, for all Term Bonds then Outstanding for such Fiscal Year (together with clause (b) immediately above, the "Principal Requirement").

For purpose of computing (a), (b) and (c) above, any principal, interest or Amortization Requirements due on the first day of a Fiscal Year shall be deemed due in the preceding Fiscal Year.

The following rules shall apply in determining the amount of the Principal and Interest Requirements for any Fiscal Year:

(i) the interest rate on Variable Rate Bonds shall be assumed to be: (A) for all purposes other than determining whether the test for issuing Additional Bonds set forth in Section 2.08 is met or determining compliance with the Debt Service Reserve Fund Requirement, the Average Rate of Interest on all Variable Rate Bonds during the twelve months ending with the month preceding the date of calculation or such shorter period of time as such Variable Rate Bonds may have been Outstanding or, in the event there were no Variable Rate Bonds Outstanding during the twelve months preceding the date of calculation, then the initial rate of interest; or (B) for purposes of determining whether the test for issuing Additional Bonds set forth in Section 2.08 is met and for determining compliance with the Debt Service Reserve Fund Requirement, (1) with respect to Taxable Bonds, a rate equal to the bond equivalent yield on United States Treasury Obligations with maturities comparable to the average weighted maturities of the Taxable Bonds then outstanding, plus 50 basis points, which yield shall be calculated in accordance with standard practices in the banking industry, and (2) with respect to Bonds that are not Taxable Bonds, a rate equal to the most recently published Bond Buyer 25 Bond Revenue Index (or a comparable index, if such index is no longer published), plus 50 basis points;

(ii) in the case of Put Bonds, the date or dates on which the Owner of such Put Bonds may elect or be required to tender such Bonds for payment or purchase shall be ignored if the source for said payment or purchase is a Credit Facility or a Liquidity Facility and the stated dates for Amortization Requirements

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and principal payments thereof shall be used for purposes of this calculation; provided, however, that during any period of time after the Credit Provider has advanced funds under a Credit Facility or a Liquidity Provider has advanced funds under a Liquidity Facility and before such amount is repaid, Principal and Interest Requirements shall include the principal amount so advanced and interest thereon, in accordance with the principal repayment schedule and interest rate or rates specified in the reimbursement or other similar agreement relating to such Credit Facility or Liquidity Facility;

(iii) in the case of Capital Appreciation Bonds, the principal and interest portions of the Accrued Value becoming due at maturity or by virtue of an Amortization Requirement in that Fiscal Year's calculation shall be included;

(iv) in the case of Capital Appreciation and Income Bonds, the principal and interest portions of the Appreciated Value becoming due at maturity or by virtue of an Amortization Requirement in that Fiscal Year's calculation shall be included;

(v) in the case of Convertible Bonds, the calculations shall be based on the form of the Bonds as of the time of the calculation without regard to any unexercised conversion feature; and

(vi) if interest on a Series of Bonds is payable from Capitalized Interest or from other amounts set aside irrevocably for such purpose at the time such Bonds are issued, or if principal, interest or Amortization Requirements are payable from investment earnings retained or deposited in the Sinking Fund in accordance with Section 6.02, interest, principal and Amortization Requirements on such Series of Bonds shall be included in Principal and Interest Requirements only to the extent of the amount of interest, Principal and Amortization Requirements payable in a Fiscal Year from amounts other than amounts so funded to pay same.

(vii) To the extent that the Authority has entered into a Hedge Agreement with respect to any Bonds and notwithstanding the provisions of clauses (i) through (vi) above, while the Hedge Agreement is in effect and so long as the Counterparty has not defaulted thereunder and so long as the Counterparty or an entity guarantying its obligations under such Hedge Agreement maintains a rating on its senior long-term debt obligations of at least "BBB" from S&P or "Baa2" from Moody's, for the purpose of determining the Interest Requirements the interest rate with respect to the principal amount of such Bonds equal to the "notional" amount specified in the Hedge Agreement shall be assumed to be (A) if the Authority's Hedge Obligations under the Hedge Agreement are computed based upon a fixed rate of interest, the actual rate of interest upon which the Authority's Hedge Obligations are computed under such Hedge Agreement, and (B) if the Authority's Hedge Obligations under the Hedge Agreement are computed based upon a variable rate of interest, the average rate of interest for the

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Authority's Hedge Obligations under the Hedge Agreement for the prior Fiscal Year or portion thereof while the Hedge Agreement was in effect or if the Hedge Agreement was not in effect during such prior Fiscal Year, then the lesser of (X) the initial rate of interest for the Authority's Hedge Obligations under the Hedge Agreement and (Y) the average rate of interest for the prior Fiscal Year under a published variable interest rate index agreed upon by the Authority and the Counterparty which is generally consistent with the formula which shall be used to determine the Authority's Hedge Obligations; "average rate" with respect to the Authority's Hedge Obligations for the prior Fiscal Year shall mean the rate determined by dividing the total annualized amount paid by the Authority under the Hedge Agreement in such Fiscal Year or portion thereof (without taking into account Hedge Receipts during such prior Fiscal Year or portion thereof) by the "notional" amount specified in the Hedge Agreement for such Fiscal Year.

"Project" shall mean Improvements to the System described in a Supplemental Indenture, as the same may be modified or amended as provided in Section 4.04.

"Provider Bonds" shall have the meaning ascribed to it in Section 3.10(d)(ii).

"Purchase Date" means the date upon which the Tender Agent is obligated to purchase a Series 1996 Bond or Series 1996 Bonds pursuant to Article III.

"Purchase Price" of any Series 1996 Bond required to be purchased by the Tender Agent pursuant to Article III means an amount equal to the principal amount of such Series 1996 Bond plus, if the Purchase Date is other than an Interest Payment Date, accrued interest thereon, at the rate applicable to the Series 1996 Bond from the most recent Interest Payment Date and up to but excluding the Purchase Date.

"Put Bonds" shall mean all Bonds which, in accordance with this Indenture (including any Supplemental Indenture authorizing the issuance of a Series of Bonds), may be tendered for payment or purchase by or on behalf of the Authority prior to the stated maturities thereof.

"Quarterly Rate" shall mean the interest rate determined for the Series 1996 Bonds for any Quarterly Rate Period pursuant to Section 2.06(f).

"Quarterly Rate Period" shall mean, while the Series 1996 Bonds bear interest at the Quarterly Rate, the period commencing on the Quarterly Rate Conversion Date for the Series 1996 Bonds, and on the first Business Day of each third calendar month thereafter, to but excluding the first Business Day of the third calendar month thereafter.

"Rate Period" or "Period" shall mean, when used with respect to any particular rate of interest applicable to the Series 1996 Bonds (whether a Daily, Weekly, Monthly, Quarterly, Semiannual, Extended or Fixed Rate), the period during which such rate of interest will remain in effect pursuant to Section 2.06.

"Rate Stabilization Account" shall mean the Account of that name established in the General Fund.

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"Roadway Operations and Maintenance Agreement" shall have the meaning ascribed to it in the recitals to this Indenture.

"S&P" shall mean Standard & Poor's Rating Group, a division of The McGraw-Hill Companies, Inc., and its successors and assigns, and, if such entity shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, "S&P" shall be deemed to refer to any other nationally recognized securities rating agency designated by the Authority by written notice of an Authorized Officer to the Trustee.

"Second Supplemental Indenture" shall have the meaning ascribed to it in the introductory paragraph of this Indenture.

"Securities Depository" shall mean DTC or its nominee, and its successors appointed by the Authority in accordance with the provisions of Section 2.12.

"Semiannual Rate" shall mean the interest rate determined for a Semiannual Rate Period pursuant to Section 2.06(g).

"Semiannual Rate Period" shall mean, while the Series 1996 Bonds bear interest at the Semiannual Rate, the period commencing on the Semiannual Rate Conversion Date and from and including the first Business Day of each sixth calendar month thereafter to but excluding the first Business Day of the sixth calendar month thereafter.

"Serial Bonds" shall mean the Bonds of a Series which are stated to mature in annual installments.

"Series" shall mean the Bonds delivered at any one time under the provisions of Article II.

"Series 1996 Bonds" shall mean the Dade County Expressway Authority (Florida) Toll System Revenue Bonds, Series 1996 (Taxable) authorized to be issued pursuant to Section 2.06.

"Series 1996 Cap Agreement" shall mean the Cap Agreement dated as of December 10, 1996 between Canadian Imperial Bank of Commerce and the Authority, as the same may be amended or supplemented from time to time in accordance with its terms.

"Series 1996 Debt Service Reserve Fund Policy Agreement" shall mean the Debt Service Reserve Fund Policy Agreement dated as of December 10, 1996 between the Authority and the Initial Reserve Facility Provider, as the same may be amended or supplemented from time to time in accordance with its terms.

"Series 1999 Bond" shall have the meaning ascribed to it in the recitals to this Indenture.

"Series 2000 Bonds" shall have the meaning ascribed to it in the recitals to this Indenture.

"Series 2001A Bonds" shall have the meaning ascribed to it in the recitals to this Indenture.

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"Rating Agency" shall mean Fitch, Moody's or S&P, or whichever of them shall maintain a rating on any of the Bonds at a given time.

"Rebate Fund" shall mean the Fund of that name created and maintained pursuant to Section 7.15.

"Record Date" shall mean, in the case of the Series 1996 Bonds (i) the Business Day immediately prior to the Interest Payment Date in question in the case of the Daily and Weekly Rate Periods, (ii) the last Business Day at least five (5) days prior to the Interest Payment Date in question in the case of the Monthly Rate Periods, and (iii) the 15th day (whether or not a Business Day) of the calendar month immediately preceding such Interest Payment Date in the case of a Quarterly, Semiannual, Extended Rate or Fixed Rate Period. "Record Date" shall mean, in the case of any other Bonds, the date fifteen days next preceding an Interest Payment Date, whether or not a Business Day, or the date otherwise designated as such in any Supplemental Indenture authorizing the issuance of such Bonds.

"Refunding Bonds" shall mean the Bonds issued pursuant to the provisions of Section 2.09 on a parity with any Outstanding Bonds.

"Remarketing Agent" means the remarketing agent appointed pursuant to Section 13.07.

"Remarketing Agreement" means the Remarketing Agreement dated as of even date herewith between the Authority and the Remarketing Agent.

"Renewal and Replacement Fund" shall mean the Fund of that name created and maintained pursuant to Section 5.06.

"Reserve Facility" shall mean the Initial Reserve Facility and any other insurance policy, surety bond, irrevocable letter of credit or other credit agreement or similar facility maintained by the Authority in lieu of or in partial substitution for cash or securities on deposit in the Debt Service Reserve Fund.

"Reserve Facility Provider" shall mean the Initial Reserve Facility Provider and any other provider of a Reserve Facility.

"Revenue Fund" shall mean the Fund of that name created and maintained pursuant to Section 5.05.

"Revenues" shall mean all Tolls, revenues, rates, fees, charges and rentals received by or accrued to the Authority in connection with or as a result of its ownership or operation of the System, including any Hedge Receipts, any revenues (including revenues that may be derived from taxes) pledged as part of the Trust Estate at any time after the date of this Indenture, any investment income from moneys held on deposit in any of the Funds or Accounts (other than the Rebate Fund) created hereunder, and, except for purposes of Section 2.08(c) of this Indenture, any amounts transferred or to be transferred from the Rate Stabilization Account to the Revenue Fund, all as calculated in accordance with the method of accounting used in the annual financial statements of the Authority.

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"Sinking Fund" shall mean the Fund of that name created and maintained pursuant to Section 5.06.

"Special Record Date" shall mean, with respect to any Bond the date established by the Authority in connection with the payment of overdue interest on the Bonds pursuant to Section 2.02.

"State" shall have the meaning ascribed to it in the introductory paragraph to this Indenture.

"State Bonds" shall have the meaning ascribed to it in the recitals hereto.

"Subaccount" shall mean any subaccount created and maintained pursuant to this Indenture.

"Sun'pass Agreement" shall have the meaning ascribed to it in the recitals to this Indenture.

"Supplemental Indenture" shall mean an indenture supplemental hereto or amendatory hereof entered into by the Authority and the Trustee pursuant to the terms hereof. Notwithstanding the foregoing, the First Supplemental Indenture, the Second Supplemental Indenture (except for Section 4.01 of the Second Supplemental Indenture, the provisions of which have been incorporated in this Indenture) and the Third Supplemental Indenture (except for Section 4.06 of the Third Supplemental Indenture, the provisions of which have been incorporated in this Indenture) shall be considered to be Supplemental Indentures for all purposes of this Indenture.

"System" shall have the meaning ascribed to it in the recitals to this Indenture.

"Taxable Bond" shall mean any Series 1996 Bond and any other Bond issued under this Indenture, if in connection with such issuance there was not delivered to the Authority an opinion of Bond Counsel to the effect that the interest on such Bond is not included in the gross income of the Owners thereof for purposes of federal income taxation.

"Tender Agent" shall mean The Bank of New York, or any successor or successors appointed in accordance with Section 13.09 of this Indenture.

"Tender Agent Agreement" shall mean the Tender Agent Agreement dated as of even date herewith between the Authority and the Tender Agent.

"Term Bonds" shall mean Bonds which shall be stated to mature on one date and for the amortization of which payment of Amortization Requirements are required to be made into the Sinking Fund.

"Test Period Revenues" shall have the meaning ascribed to it in Section 2.08(c)(v).

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"Third Supplemental Indenture" shall have the meaning ascribed to it in the introductory paragraph of this Indenture.

"Time Deposits" shall mean time deposits, certificates of deposit or similar arrangements with any bank or trust company which is a member of the Federal Deposit Insurance Corporation and any federal or State of Florida savings and loan association whose deposits are insured by the Savings Association Insurance Fund and which are secured in the manner provided in Section 6.01.

"Toll Operations and Maintenance Agreement" shall have the meaning ascribed to it in the recitals to this Indenture.

"Tolls" shall mean all tolls, fares, incomes, receipts, rents, franchises, charges and all returns or moneys of an income nature derived by or for the benefit of the Authority from users of the System.

"Transfer Agreement" shall have the meaning ascribed to it in the recitals to this Indenture.

"Trustee" shall mean The Bank of New York or any other bank or trust company, either within or without the State of Florida, having fiduciary powers and designated as Trustee in the manner provided in Section 8.08.

"Trust Estate" shall have the meaning ascribed to it in the recitals to this Indenture.

"Variable Rate" means, as the context requires, the Daily, Weekly, Monthly, Quarterly, Semiannual or Extended Rate applicable to the Series 1996 Bonds.

"Variable Rate Bonds" shall mean Bonds issued with a variable, adjustable, convertible or other similar interest rate which is not fixed in percentage for the entire term thereof at the date of issue, and which may be convertible to a fixed interest rate.

"Vice-Chairman" shall mean the Person appointed to serve as the Vice-Chairman of the Authority or his designee or the Person succeeding to his principal function.

"Weekly Rate" shall mean the interest rate determined for a Weekly Rate Period pursuant to Section 2.06(d) hereof.

"Weekly Rate Period" shall mean, while the Series 1996 Bonds bear interest at the Weekly Rate, the period commencing on Thursday of each week (or in the case of the first Weekly Rate Period, on the date of original issuance and delivery of the Series 1996 Bonds) to but excluding Thursday of the following week (or in the case of the first Weekly Rate Period, the Thursday immediately following the date of original issuance and delivery of the Series 1996 Bonds), except that (a) in the case of a conversion to a Weekly Rate Period from a different Variable Rate Period, the initial Weekly Rate Period shall be from and including and including the Weekly Rate Conversion Date to but excluding Thursday of the following week, and (b) in

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## ARTICLE II

### AUTHORIZATION, DETAILS, EXECUTION, DELIVERY AND REGISTRATION OF BONDS

**SECTION 2.01. AUTHORIZATION OF BONDS.** The Authority shall not issue any Bonds while this Indenture is in effect except in accordance with the provisions of this Article II. Bonds may be issued in one or more Series only for purposes permitted under this Article II. The total principal amount of Bonds that may be issued and Outstanding under this Indenture is unlimited. Any two or more Series may be consolidated for purposes of sale in such manner as may be provided herein or in the Supplemental Indenture authorizing the issuance of the Bonds of such Series. The principal of, redemption premium, if any, and interest on all Bonds shall be payable solely from the Trust Estate.

Upon the issuance of a Series of Bonds under the terms, limitations and conditions herein provided, the Authority shall provide for the funding of the Debt Service Reserve Fund in an amount equal to the Debt Service Reserve Fund Requirement, all as set forth herein with respect to the Series 1996 Bonds and in the Supplemental Indenture authorizing the issuance of any other Series of Bonds. The Authority may establish a separate Account in the Debt Service Reserve Fund for each Series of Bonds, including those secured by a Reserve Facility, and the Owners of Bonds secured by such separate account shall not be secured by any other Account or Reserve Facilities in the Debt Service Reserve Fund.

**SECTION 2.02. DETAILS OF BONDS.** The Bonds of each Series issued under the provisions of this Indenture shall be designated "Dade County Expressway Authority (Florida) Toll System Revenue Bonds", and may be further designated as "Refunding", or "Taxable", as the Authority may determine to be appropriate, in each case inserting the year of issuance and any identifying series letter after the word "Series", subject to such variations or changes as may be determined necessary or appropriate by the Authority and specified as hereinafter provided with respect to the Series 1996 Bonds or in a Supplemental Indenture authorizing the issuance of the Bonds of any other Series. The Bonds shall be in such amounts, if any, of Serial Bonds and/or Term Bonds and in the form of Capital Appreciation Bonds, Capital Appreciation and Income Bonds, Convertible Bonds, Put Bonds, Variable Rate Bonds or such other form of Bonds which may be marketable from time to time, or any combination thereof, as the Authority may determine. Except as otherwise provided in a Supplemental Indenture authorizing the issuance of a Series of Bonds, the Bonds of such Series shall be in fully registered form as to principal and interest, without coupons. Except as otherwise provided in a Supplemental Indenture authorizing the issuance of a Series of Bonds, both the principal of and the interest on the Bonds of such Series shall be payable in any coin or currency of the United States of America, or by check or wire payment in such currency, as, at the respective times of payment, is legal tender for the payment of public and private debts.

Payment of interest on any Interest Payment Date with respect to the Bonds, other than Capital Appreciation Bonds and interest on Capital Appreciation and Income Bonds that accrues prior to the Interest Commencement Date, shall be made to the Person appearing on the registration books of the Authority maintained pursuant to Section 2.04, as of the close of

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the case of a conversion of the Series 1996 Bonds from a Weekly Rate Period to a different Rate Period, the last Weekly Rate Period shall end on and exclude the Conversion Date.

**SECTION 1.02. INTERPRETATION.** (a) In this Indenture, unless the context otherwise requires:

(i) The terms "hereby," "hereof," "hereto," "herein," "hereunder" and any similar terms, as used in this Indenture, refer to this Indenture, and the term "hereafter" shall mean after, and the term "heretofore" shall mean before, the date of this Indenture;

(ii) Words of the masculine gender shall mean and include correlative words of the feminine and neuter genders and words importing the singular number shall mean and include the plural number and vice versa;

(iii) References to Articles and Sections refer to Articles and Sections of this Indenture unless the context specifically requires otherwise;

(iv) Any headings preceding the text of the several Articles and Sections of this Indenture, and any table of contents or marginal notes appended to copies hereof, shall be solely for convenience of reference and shall not constitute a part of this Indenture, nor shall they affect its meaning, construction or effect; and

(v) References to Funds shall include any and all Accounts or Subaccounts therein, unless the context otherwise requires.

(b) Whenever in this Indenture the Authority or the Trustee is named or referred to, it shall include, and shall be deemed to include, its respective successors and assigns whether so expressed or not. All of the covenants, stipulations, obligations and agreements by or on behalf of, and other provisions for the benefit of, the Authority or the Trustee contained in this Indenture shall bind and inure to the benefit of such respective successors and assigns and shall bind and inure to the benefit of any officer, board, commission, authority, agency or instrumentality to whom or to which there shall be transferred by or in accordance with law any right, power or duty of the Authority or of its successors or assigns, the possession of which is necessary or appropriate in order to comply with any such covenants, stipulations, obligations, agreements or other provisions of this Indenture.

(c) Nothing in this Indenture expressed or implied is intended or shall be construed to confer upon, or to give to, any Person other than the Authority, the Trustee, any Credit Provider, any Liquidity Provider, any Reserve Facility Provider, including their respective agents, and the Owners, any right, remedy or claim under or by reason of this Indenture or any covenant, condition or stipulation hereof. All the covenants, stipulations, promises and agreements in this Indenture contained by or on behalf of the Authority shall be for the sole benefit of the Authority, the Trustee, any Credit Provider, any Liquidity Provider, any Reserve Facility Provider, including their respective agents and the Owners.

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business on the Record Date. Such interest shall be payable by check or draft drawn on a Paying Agent and shall be mailed on the Interest Payment Date to each Owner as of the Record Date, at his address as it appears on said registration books, or in the case of an Owner of \$1,000,000 or more of Bonds, by wire transfer to a domestic bank account specified in writing by such Owner to the Trustee and Paying Agent at least fifteen (15) days prior to an Interest Payment Date.

If and to the extent that the Authority shall fail to make a required payment or provision for payment of interest on any Bond on any Interest Payment Date, that interest shall cease to be payable to the Person who was the Owner of that Bond as of the applicable Record Date. When moneys become available for payment of interest on such Bond, the Trustee shall establish a Special Record Date for the payment of that interest which shall not be more than twenty, nor fewer than ten, days prior to the date of the proposed payment. Not fewer than ten days prior to the Special Record Date, notice of the proposed payment and of the Special Record Date therefor shall be mailed to each Owner of record on the fifth day prior to such mailing at his address as it appears on the registration books of the Authority maintained pursuant to Section 2.04. Thereafter, such interest shall be payable to the Owners of such Bonds at the close of business on the Special Record Date.

The principal of, and redemption premium, if any, on the Bonds, the Accreted Value of Capital Appreciation Bonds and the Appreciated Value of Capital Appreciation and Income Bonds shall be payable to or upon the order of the Owner or his duly authorized attorney or legal representative, as the same falls due, upon the presentation and surrender of such Bonds at the designated corporate trust office of the Paying Agent.

Each Series of Bonds (other than the Series 1996 Bonds) shall be authorized by a Supplemental Indenture which shall establish or provide a means of establishing the following:

(a) the purpose for which such Bonds are to be issued, which shall be a purpose permitted under this Article II;

(b) the manner in which the proceeds of the sale of such Bonds are to be applied, including any required deposits to the Funds, Accounts and Subaccounts;

(c) whether such Bonds shall be issued as Serial Bonds, Term Bonds, or a combination of the foregoing and whether such Bonds shall be in the form of Capital Appreciation Bonds, Capital Appreciation and Income Bonds, Convertible Bonds, Put Bonds, Variable Rate Bonds or any other form of Bond which may become marketable from time to time, or any combination of such forms as determined by the Authority;

(d) the Authorized Denominations in which such Bonds are issuable;

(e) the amount or amounts, date or dates, maturity date or dates (not exceeding the maximum number of years after the date of original issuance as is permitted by law), and interest rate or rates (not exceeding the maximum rate permitted by law) with respect to such Bonds;

(f) the Interest Payment Dates for such Bonds;

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(g) the redemption and tender provisions, if any, for such Bonds;

(h) the appointment of the Paying Agent and Bond Registrar for such Bonds and any remarketing agent, Credit Provider, Liquidity Provider or Reserve Facility Provider to be appointed in connection with the issuance of such Bonds and the authority to execute agreements relating to the functions to be performed by any such Person, to the extent applicable to any of such Bonds;

(i) the creation of any additional Funds, Accounts and Subaccounts applicable to such Bonds and the designation of any such additional Funds, Accounts and Subaccounts as being established with respect to such Bonds;

(j) the manner in which the Authority shall ensure that the Debt Service Reserve Fund Requirement shall be satisfied at the time of issuance of such Bonds;

(k) the designated corporate trust office of the Bond Registrar and Paying Agent for such Bonds; and

(l) such other matters as required by this Indenture to be established in a Supplemental Indenture or otherwise deemed appropriate by the Authority to be included therein and not inconsistent with the provisions of this Indenture.

**SECTION 2.03. EXECUTION, AUTHENTICATION; BOND FORM.** Except as otherwise permitted or required by the Act or applicable law, the Bonds shall be signed by, or bear the facsimile signature of, the Chairman or Vice Chairman of the Authority. The official seal of the Authority or a facsimile thereof shall be imprinted or impressed on the Bonds. Such official seal shall be attested by the signature or facsimile signature of the Secretary of the Authority or an Authorized Officer. In case any officer whose signature or a facsimile of whose signature shall appear on any Bonds shall cease to be such officer before such Bonds have been authenticated and transferred by the Bond Registrar or delivered by the Authority, such signature or such facsimile shall nevertheless be valid and sufficient for all purposes the same as if he or she had remained in office until such authentication and transfer or delivery occurred. In addition, any Bond may bear the facsimile signature of, or may be signed by, such Persons as at the actual time of the execution of the Bond shall be the proper officers to execute such Bond although at the date of the Bond such Persons may not have been such officers.

Only such Bonds as have endorsed thereon a certificate of authentication as set forth in the form of Bond authorized by this Indenture, in the case of the Series 1996 Bonds, or a Supplemental Indenture authorizing the issuance of any other Series of Bonds, duly executed by the Bond Registrar, shall be entitled to any benefit or security under this Indenture. No Bonds shall be valid or obligatory for any purpose unless and until such certificate of authentication on the Bond has been duly executed by the Bond Registrar, and such certificate of the Bond Registrar upon any such Bond shall be conclusive evidence that such Bond has been duly authenticated and delivered under this Indenture. The Bond Registrar's certificate of authentication on any Bond shall be deemed to have been duly executed if signed by an authorized officer of the Bond Registrar, but it shall not be necessary that the same officer sign

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or part of the Bonds previously carried, and notwithstanding anything contained in this Indenture, such newly delivered Bond shall be dated or bear such notation so that neither gain nor loss in interest the payment of which is not in default shall result from any exchange, substitution or transfer.

The Authority, the Trustee, the Paying Agent and the Bond Registrar may deem and treat the Person in whose name any Bond is registered on the books maintained pursuant to this Section 2.04 as the absolute Owner of such Bond, whether such Bond shall be overdue or not, for the purpose of receiving payment thereof and for all other purposes whatsoever, and none of the Authority, the Paying Agent or the Bond Registrar shall be affected by any notice to the contrary. All such payments shall be valid and effective to satisfy and discharge the liability upon such Bond to the extent of the sum or sums so paid. Notwithstanding anything to the contrary in this Indenture, the Authority may authorize the use of a book entry only system of beneficial ownership with respect to any Series of Bonds.

**SECTION 2.05. CANCELLATION OF BONDS.** All Bonds paid or redeemed, either at or before maturity, shall be delivered to the Paying Agent when such payment or redemption is made, and such Bonds, together with all Bonds purchased by the Authority and delivered to the Paying Agent for cancellation, shall thereupon be promptly canceled. Bonds so canceled may at any time be destroyed by the Paying Agent, who shall execute a certificate of destruction in duplicate by the signature of one of its authorized officers, describing the Bonds so destroyed, and one executed certificate shall be filed with the Bond Registrar and the other executed certificate shall be kept by the Paying Agent.

#### **SECTION 2.06. AUTHORIZATION OF SERIES 1996 BONDS**

##### **(a) General Terms and Provisions.**

(i) **Terms of Series 1996 Bonds.** The Series 1996 Bonds: (A) shall be issued in the initial aggregate principal amount of \$80,000,000; (B) shall be dated the date of the issuance thereof; (C) shall mature on July 1, 2019; (D) shall be substantially in the form attached as Exhibit C hereto; (E) shall be payable as to interest on each Interest Payment Date established therefor at the rate per annum determined as provided in the form thereof and in this Section 2.06; (F) shall be subject to redemption, to optional and mandatory tender for purchase, and to remarketing, all as provided in the form thereof and in Article III; and (G) shall be considered Bonds for all purposes of this Indenture. Interest on Series 1996 Bonds bearing interest at the Daily Rate, Weekly Rate, Monthly Rate and Quarterly Rate will be calculated based on the actual days elapsed and a year of 365 or 366 days, as applicable, and interest on the Series 1996 Bonds bearing interest at the Semiannual Rate, Extended Rate or Fixed Rate will be calculated based on a year of 360 days consisting of twelve 30-day months.

(ii) **Purposes of Series 1996 Bonds.** The Series 1996 Bonds shall be issued for the purposes of providing funds to pay all or a portion of the cost of (A) the acquisition by the Authority of operational and financial control of the System, as it exists on the date hereof, in perpetuity by, among other things, defeasing all of the outstanding State

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the certificate of authentication on all of the Bonds that may be issued hereunder at any one time. The Series 1996 Bonds shall be substantially in the form attached as Exhibit C hereto. Each other Series of Bonds shall be substantially in the form set forth in the Supplemental Indenture authorizing the issuance of such Bonds.

**SECTION 2.04. BOND REGISTRAR; REGISTRATION, TRANSFER AND EXCHANGE.** The Authority shall cause books for the registration and transfer of Bonds to be kept by the Bond Registrar. Unless otherwise provided with respect to a Series of Bonds in the Supplemental Indenture authorizing the issuance of the Bonds of such Series, all Bonds shall be registered in such books upon issuance thereof, who shall make notation of such registration thereon and shall not be registered to bearer. Bonds shall thereafter be transferred only by the Owner of such Bonds, in person or by his duly authorized attorney or legal representative, upon the surrender thereof together with a written assignment duly executed by the Owner or his duly authorized attorney or legal representative in such form as shall be satisfactory to the Bond Registrar. The registration of such transfer shall be made on such registration books and endorsed on the Bond by the Bond Registrar. Upon the transfer of any Bond, the Bond Registrar shall cause to be issued in the name of the transferee a new Bond or Bonds.

Upon surrender at the designated corporate trust office of the Bond Registrar with a written instrument of transfer duly executed by the Owner or his duly authorized attorney or legal representative, in such form as shall be satisfactory to the Bond Registrar, Bonds may be exchanged for a like aggregate principal amount of Bonds of other Authorized Denominations of the same Series, interest rate and maturity. The Authority shall execute, and the Bond Registrar shall authenticate and deliver such Bonds as the Owner making the exchange is entitled to receive.

In all cases in which the privilege of exchanging or transferring Bonds is exercised, the Authority shall execute and the Bond Registrar shall authenticate and deliver Bonds in accordance with the provisions of this Indenture. All Bonds surrendered in any such exchanges or transfers shall forthwith be delivered to the Bond Registrar and canceled by the Bond Registrar in the manner provided in Section 2.05.

No charge shall be made to any Bondholder for the privilege of registration, transfer or exchange hereinabove granted, but any Bondholder requesting any such registration, transfer or exchange shall pay any tax or other governmental charge required to be paid with respect thereto. The Authority and Bond Registrar shall not be required to execute, transfer or exchange any Bond during the period beginning at the close of business on a Record Date (or Special Record Date) and ending at the close of business on the next Interest Payment Date (or date set for payment of interest for which the Special Record Date was set). The Authority and Bond Registrar shall not be required to transfer or exchange any Bond: (a) during the fifteen days immediately preceding the date of mailing of notice of the redemption of such Bond; or (b) after such Bond has been selected for redemption or has matured.

Each Bond delivered pursuant to any provision of this Indenture in exchange or substitution for, or upon the transfer of the whole or any part of, one or more other Bonds, shall carry all of the right to interest which is accrued and unpaid, and which is to accrue, on the whole

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Bonds pursuant to the terms and provisions of the Escrow Agreement, (B) funding a portion of the Debt Service Reserve Fund Requirement in respect of the Series 1996 Bonds, and (C) paying certain costs associated with the issuance of the 1996 Bonds.

##### **(iii) Application of Proceeds and Other Available Moneys.**

(A) The proceeds of the Series 1996 Bonds shall be applied by an Authorized Officer as follows:

(1) \$76,000,000 shall be immediately transferred to the SBA for application pursuant to the Escrow Agreement; and

(2) \$4,000,000, an amount equal to the Debt Service Reserve Fund Requirement in respect of the Series 1996 Bonds shall be delivered to the Trustee for deposit to the credit of the Debt Service Reserve Fund.

(B) Simultaneous with the issuance of the Series 1996 Bonds, the Authority shall cause to be delivered to the Trustee the amounts described below for application as follows:

(1) All of the cash and securities credited to the Renewal and Replacement Reserve Fund established in respect of the State Bonds shall be delivered to the Trustee and credited to the Renewal and Replacement Fund;

(2) \$6,966,037.96, consisting of \$6,905,165.45 credited to the Reserve Account established for the State Bonds and \$60,872.51 credited to the Debt Retirement Account established for the State Bonds shall be immediately transferred to the SBA for application pursuant to the Escrow Agreement;

(3) \$2,000,000 credited to the Debt Retirement Account for the State Bonds shall be immediately transferred to Canadian Imperial Bank of Commerce as required under the Cap Agreement; and

(4) \$1,201,533.88 credited to the Debt Retirement Account for the State Bonds shall be delivered to the Trustee for deposit to the credit of a special account (which the Authority hereby directs the Trustee to establish and maintain) and applied at the written direction of an Authorized Officer to the payment of certain costs of issuance of the Series 1996 Bonds, including, but not limited to, financial advisory, accounting and legal fees, rating agency fees, printing costs, initial Bond Registrar fees, initial Paying Agent fees, initial Trustee fees, Credit Facility and Liquidity Facility fees and expenses, if any, and any other miscellaneous expenses relating to the issuance of the Series 1996 Bonds (At the written direction of an Authorized Officer the Trustee shall close

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such special account and shall transfer any amounts remaining therein at the time of closure to the Revenue Fund).

(iv) Conditions Precedent to Issuance of Series 1996 Bonds. The Series 1996 Bonds shall be authenticated by the Bond Registrar and delivered by the Trustee in such manner as shall be specified in writing by an Authorized Officer, but only after the Series 1996 Bonds shall have been executed as provided in this Indenture and there shall have been delivered to the Trustee, the following:

(A) fully executed copies of this Indenture, the Escrow Agreement, the Transfer Agreement, the Toll Operations and Maintenance Agreement, the Roadway Operations and Maintenance Agreement, the SunPass Agreement, the Initial Credit Facility, the Initial Liquidity Facility, the Remarketing Agreement, the Tender Agent Agreement, the Continuing Disclosure Agreement and the Escrow Agreement;

(B) separate written opinions of each Bond Counsel stating that each is of the opinion that the issuance of the Series 1996 Bonds has been duly authorized, that all conditions precedent to the delivery of the Series 1996 Bonds have been satisfied, and that this Indenture creates a valid and enforceable pledge of the Trust Estate; and

(C) \$80,000,000, in immediately available funds, constituting the purchase price for the Series 1996 Bonds upon their initial issuance and delivery.

(b) Variable Rate; Determination by Remarketing Agent; Notice of Rates Determined. The Series 1996 Bonds shall initially bear interest at the Weekly Rate until converted to another Rate Period as provided herein. Subject to the further provisions of this Article II with respect to particular Variable Rates or conversions between Rate Periods, and subject to the provisions of the Series 1996 Bonds, the Variable Rate to be applicable to Series 1996 Bonds during any Variable Rate Period shall be determined by the Remarketing Agent as provided in this Section 2.06 and notice thereof shall be given as follows:

(i) Notice of each preliminary Variable Rate and Variable Rate shall be given as follows:

(A) By the Remarketing Agent to the Trustee, the Bond Registrar and the Tender Agent by telephone (followed by notice in writing by an authorized officer of the Remarketing Agent) not later than 5:00 p.m., Eastern time, (10:00 a.m., Eastern time, with respect to Daily Rates) on the date of determination; and

(B) On the last Business Day of each month or more frequently upon the Credit Provider's or Liquidity Provider's written request, the Tender Agent shall provide written notice thereof to the Credit Provider and the Liquidity Provider.

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case of a conversion of the Series 1996 Bonds from a Weekly Rate Period to a different Rate Period, the last Weekly Rate Period shall end on and exclude the Conversion Date.

(ii) The Weekly Rate for each Weekly Rate Period shall be determined not later than 4:00 p.m., Eastern time, on Wednesday or, if such Wednesday is not a Business Day, the last Business Day which is immediately prior to the commencement date of the Weekly Rate Period to which it relates.

(c) Monthly Rates.

(i) Monthly Rate Periods shall be from and including the first Business Day of each calendar month to but excluding the first Business Day of the following month.

(ii) The Monthly Rate for each Monthly Rate Period shall be determined as follows:

(A) A preliminary Monthly Rate for each Monthly Rate Period shall be determined not later than 4:00 p.m., Eastern time, on the last Business Day which is at least eight (8) days immediately preceding the commencement date of such period; and

(B) The actual Monthly Rate for each Monthly Rate Period shall be determined not later than 4:00 p.m., Eastern time, on the Business Day immediately preceding the commencement date of such period.

(f) Quarterly Rates.

(i) Quarterly Rate Periods shall be (A) from and including the Quarterly Rate Conversion Date for the Series 1996 Bonds and from and including the first Business Day of each third (3rd) calendar month thereafter; (B) to but excluding the first Business Day of the third (3rd) calendar month thereafter.

(ii) The Quarterly Rate for each Quarterly Rate Period shall be determined as follows:

(A) A preliminary Quarterly Rate for each Quarterly Rate Period shall be determined not later than 4:00 p.m., Eastern time, on the last Business Day which is at least fifteen (15) days preceding the commencement date of such period; and

(B) The actual Quarterly Rate for each Quarterly Rate Period shall be determined not later than 4:00 p.m., Eastern time, on the Business Day immediately preceding the commencement date of such period.

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Notice of each preliminary Monthly, Quarterly, Semiannual and Extended Rate, and of each Monthly, Quarterly, Semiannual and Extended Rate, shall be given by the Bond Registrar by sending notice in writing to the Owners of the Series 1996 Bonds and the Trustee not later than 5:00 p.m., Eastern time, on the third Business Day following the date of determination. The Tender Agent shall inform the Owners of the Series 1996 Bonds and the Trustee of the Daily and Weekly Rates upon request.

(ii) The preliminary Variable Rate or the Variable Rate so to be determined shall be the lowest rate of interest which, in the judgment of the Remarketing Agent, would cause the Series 1996 Bonds to have a market value equal to the principal amount thereof, plus accrued interest, under prevailing market conditions as of the date of determination of such preliminary Variable Rate or Variable Rate. The preliminary Variable Rate is intended to serve only as an indication of the lowest interest rate that would cause the Series 1996 Bonds to have a market value equal to par under market conditions on the date on which such preliminary Variable Rate is determined. The Variable Rate determined after the preliminary Variable Rate is determined may be higher, lower or the same as such preliminary Variable Rate. Notwithstanding the foregoing, in no event shall the preliminary Variable Rate or the Variable Rate for any Variable Rate Period exceed the Maximum Rate.

(iii) All determinations of Variable Rates pursuant to this Section shall be conclusive and binding upon the Authority, the Trustee, the Bond Registrar, the Tender Agent, the Credit Provider, the Liquidity Provider, and the Owners of the Series 1996 Bonds. The Authority, the Trustee, the Bond Registrar, the Tender Agent and the Remarketing Agent shall not be liable to the Owner of any Series 1996 Bond for failure to give any notice required above or for failure of the Owner of any Series 1996 Bond to receive any such notice.

(c) Daily Rates.

(i) Daily Rate Periods shall be from each Business Day to but excluding the following Business Day.

(ii) The Daily Rate for each Daily Rate Period shall be determined by the Remarketing Agent between 8:30 a.m., Eastern time, and 10:00 a.m., Eastern time, on the commencement date of the Daily Rate Period to which it relates.

(d) Weekly Rates.

(i) The first Weekly Rate Period shall commence on the date of original issuance and delivery of the Series 1996 Bonds and shall run to but excluding the next succeeding Thursday. Weekly Rate Periods thereafter shall be from Thursday of each week to but excluding Thursday of the following week; except that (A) in the case of a conversion to a Weekly Rate Period from a different Variable Rate Period, the initial Weekly Rate Period for the Series 1996 Bonds shall be from and including the Weekly Rate Conversion Date to but excluding Thursday of the following week; and (B) in the

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(g) Semiannual Rates.

(i) Semiannual Rate Periods shall be (A) from and including the Semiannual Rate Conversion Date for the Series 1996 Bonds and from and including the first Business Day of each sixth calendar month thereafter; (B) to but excluding the first Business Day of the sixth month thereafter.

(ii) The Semiannual Rate for each Semiannual Rate Period shall be determined as follows:

(A) A preliminary Semiannual Rate for each Semiannual Rate Period shall be determined not later than 4:00 p.m., Eastern time, on the last Business Day which is at least thirty (30) days immediately preceding the commencement date of such period;

(B) The actual Semiannual Rate for each Semiannual Rate Period shall be determined not later than 4:00 p.m., Eastern time, on the Business Day immediately preceding the commencement date of such period.

(h) Extended Rates.

(i) Extended Rate Periods shall commence initially on the Extended Rate Conversion Date for the Series 1996 Bonds, and subsequently on the first Business Day of the calendar month following the last day of the prior Rate Period and extend for a period of one year or integral multiples of six months in excess of one year set by the Remarketing Agent, and end on a day which is the last day preceding the first Business Day of a calendar month.

(ii) The Extended Rate for each Extended Rate Period shall be determined as follows:

(A) A preliminary Extended Rate for each Extended Rate Period shall be determined not later than 4:00 p.m., Eastern time, on the last Business Day which is at least thirty (30) days immediately preceding the commencement date of such period;

(B) The actual Extended Rate for each Extended Rate Period shall be determined not later than 4:00 p.m., Eastern time, on the Business Day immediately preceding the commencement date of such period.

(i) Limitation on Rate Periods. None of the Variable Rate Periods may extend beyond the termination date of the Credit Facility or the Liquidity Facility.

(j) Conversion between Variable Rate Periods. (i) At the option of the Authority and upon delivery of an Opinion of Bond Counsel to the Trustee and the Authority, the Series 1996 Bonds may be converted from one Variable Rate Period to another as provided in this clause (j). In the case of conversion from one Variable Rate Period to a different Variable Rate Period, the

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Conversion Date shall be an Interest Payment Date for the Variable Rate Period from which the conversion is to be made; provided, however, that in the case of a conversion from an Extended Rate Period, the Conversion Date shall be limited to an Interest Payment Date on which a new Extended Rate Period for the Series 1996 Bonds would otherwise have commenced pursuant to Section 2.06(h). At the direction of the Authority, the Remarketing Agent shall give written notice of any conversion pursuant to this Section to the Trustee, the Bond Registrar, the Tender Agent, the Authority, the Credit Provider and the Liquidity Provider not less than five Business Days prior to the date on which the Tender Agent is required to notify the Owners of the conversion in the manner provided in this clause (j). Such notice shall specify the Conversion Date and the Rate Period to which the conversion will be made. Not less than thirty (30) days prior to any Conversion Date, the Tender Agent shall mail or cause the Bond Registrar to mail a written notice of the conversion to the Authority, the Trustee, the Credit Provider, the Liquidity Provider and all of the Owners of the Series 1996 Bonds. Such notice shall set forth (A) the information contained in the notice from the Remarketing Agent pursuant to this clause (j) above, (B) the Interest Payment Dates for the new Rate Period, (C) in the case of conversion to a Variable Rate Period, the dates on which the Remarketing Agent will determine and the Tender Agent will notify the Owners of the preliminary Variable Rate (if applicable) and the Variable Rate for the Variable Rate Period commencing on the Conversion Date, and (D) the matters required to be stated pursuant to Section 3.08(b) with respect to purchases of Series 1996 Bonds which are governed by such Section.

(k) Determination of Variable Rate Effective on Conversion Date. The preliminary Variable Rate (if applicable) and the Variable Rate for the Variable Rate Period commencing on the Conversion Date shall be determined by the Remarketing Agent in the manner and on the dates provided in this Section 2.06. In addition to determining the Variable Rate for the Rate Period to which conversion is to be made, the Remarketing Agent shall determine a Weekly Rate at the time specified in Section 2.06(d), and give notice thereof to the Tender Agent, the Bond Registrar and the Trustee, which Weekly Rate shall take effect, if needed, pursuant to clause (i) below.

(l) Conditions on which Conversion Ineffective. Notwithstanding the delivery of notice of conversion pursuant to clause (j) above, conversion to a new Variable Rate Period shall not take effect as to the Series 1996 Bonds if:

- (i) The Remarketing Agent fails to determine a Variable Rate for the Rate Period to which the conversion is to be made;
- (ii) Any notice required by Section 2.06(j) is not given when required;
- (iii) There is not delivered to the Authority and the Trustee an Opinion of Bond Counsel, dated as of the Conversion Date;
- (iv) Such notice of conversion is rescinded by the Authority by written notice of such rescission to the Trustee and the Remarketing Agent which written notice is delivered prior to the applicable Conversion Date. If the Trustee receives notice of such rescission prior to the time the Trustee has given notice to the Owners of the Series 1996

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Provider and the Liquidity Provider, setting forth (A) the election to convert the Series 1996 Bonds to a Fixed Rate, and (B) the proposed Fixed Rate Conversion Date. As a condition of any such conversion, the Trustee, the Credit Provider, the Liquidity Provider and the Remarketing Agent shall receive, concurrently with the notice, an Opinion of Bond Counsel.

(n) Preliminary Determination of Terms of Series 1996 Bonds while Bearing Interest at the Fixed Rate. The Remarketing Agent shall make a preliminary determination of the Fixed Rate or Fixed Rates for the Series 1996 Bonds and the maturities of the Series 1996 Bonds in the same manner as is provided for the final determination of rates pursuant to Section 2.06(p). Such preliminary determination shall be made on a Business Day which is at least thirty-five (35) days prior to the Fixed Rate Conversion Date. On the date of the preliminary determination, the Remarketing Agent shall notify the Tender Agent and the Tender Agent shall notify the Authority, the Trustee, the Bond Registrar, the Credit Provider and the Liquidity Provider, by telephone (promptly confirmed in writing), telegram, telex or other similar means of communication of the preliminary Fixed Rate or Rate or Rates so determined.

(o) Notice of Conversion to Fixed Rate. The Tender Agent shall mail or cause the Bond Registrar to mail a notice of the proposed conversion to the Authority, the Bond Registrar, the Trustee, the Credit Provider, the Liquidity Provider and the Owners of all Series 1996 Bonds to be converted. Such notice shall be mailed not less than thirty (30) days prior to the proposed Fixed Rate Conversion Date. Such notice shall set forth the proposed Fixed Rate Conversion Date and state:

- (i) that the Series 1996 Bonds are subject to mandatory tender for purchase (without the right to retain) on the Fixed Rate Conversion Date at a Purchase Price of par plus accrued interest; and
- (ii) that the Series 1996 Bonds shall be deemed purchased on the Fixed Rate Conversion Date, and thereafter the Owner shall have no further rights hereunder except to receive such Purchase Price.

(p) Determination of Fixed Rate. The Remarketing Agent shall determine the Fixed Rate or Fixed Rates for the Series 1996 Bonds by not later than 3:30 p.m., Eastern time, on the last Business Day that is at least five (5) days prior to the Fixed Rate Conversion Date for the Series 1996 Bonds. The Fixed Rate or Fixed Rates shall be the lowest rate or rates of interest per annum (not in excess of the maximum rate of interest allowed by law) which, in the judgment of the Remarketing Agent as of the date of determination and under prevailing market conditions, would cause the Fixed Rate Series 1996 Bonds to have a market value equal to the principal amount thereof, plus accrued interest. If necessary or desirable to achieve the lowest Fixed Rate or Fixed Rates on the Series 1996 Bonds, the Remarketing Agent may determine that some or all of the Series 1996 Bonds shall be converted to Serial Bonds maturing in years for which Amortization Requirements have been established for the Series 1996 Bonds and maturing in aggregate principal amounts that correspond to such Amortization Requirements. Not later than 4:00 p.m., Eastern time, on the date of determination of the Fixed Rate, the Remarketing Agent shall notify the Tender Agent of the Fixed Rate or Fixed Rates and of any serialization of the maturities of the Series 1996 Bonds by telephone (promptly confirmed in writing). Such

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Bonds, then such notice of conversion shall be of no force and effect. If the Trustee receives notice of such rescission after the Trustee has given notice to the Owners of the Series 1996 Bonds, then the Series 1996 Bonds shall automatically adjust to a Weekly Rate Period. Any purchases of Series 1996 Bonds scheduled or required to take place on the proposed effective date of any Rate Period (being also the effective date of the automatic adjustment to a Weekly Rate Period as in this Section 2.06(i) provided) shall take place on such date. No Opinion of Bond Counsel shall be required in connection with any automatic adjustment to a Weekly Rate Period as in this Section 2.06(i) provided; or

(v) There is not delivered to the Trustee written evidence from the Rating Agency that any such conversion to a Quarterly Rate, Semiannual Rate or Extended Rate will not, of itself, cause a reduction or withdrawal of any rating then assigned to the Bonds.

Except as specifically provided in (iv) above, in any such event, the Series 1996 Bonds which were to be converted shall automatically be converted to a Weekly Rate Period on the date such conversion was to be made, provided that any mandatory or optional tender for purchase on the Conversion Date shall nevertheless be carried out. No cancellation of a conversion pursuant to this subsection shall constitute an Event of Default hereunder. Upon the occurrence of an event described in (i) above, the Weekly Rate for the Series 1996 Bonds shall be the per annum rate of interest determined on each Thursday (or if such day is not a Business Day, the immediately preceding Business Day) by the Trustee which is equal to the lesser of the Maximum Rate and (1) so long as the Series 1996 Bonds shall remain Taxable Bonds, a rate equal to the bond equivalent yield on ninety-one day United States Treasury Bills, plus 50 basis points, which yield shall be calculated in accordance with standard practices in the banking industry on the basis of the discount rates at which such bills were sold, or (2) should the Series 1996 Bonds cease to be Taxable Bonds, a rate equal to the most recently published Bond Buyer 25 Bond Revenue Index (or a comparable index, if such index is no longer published), plus 50 basis points.

(m) Conversion to Fixed Rate. The Series 1996 Bonds shall be converted to bear interest at a Fixed Rate upon request of the Authority as provided in this clause (m). The Fixed Rate Conversion Date shall be:

- (i) In the case of a conversion from a Variable Rate Period other than an Extended Rate Period, an Interest Payment Date for the Series 1996 Bonds on which interest is payable for the Variable Rate Period from which the conversion is to be made; and
- (ii) In the case of a conversion from an Extended Rate Period, an Interest Payment Date for the Series 1996 Bonds on which a new Extended Rate Period would otherwise have commenced pursuant to Section 2.06(h).

Not less than forty-five (45) days (or such shorter period approved by the parties to receive the same) prior to the Fixed Rate Conversion Date, the Authority shall give written notice to the Trustee, the Bond Registrar, the Tender Agent, the Remarketing Agent, the Credit

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determination shall be conclusive and binding upon the Authority, the Trustee, the Tender Agent, the Credit Provider, the Liquidity Provider and the Owners of the Series 1996 Bonds. The Tender Agent shall make such Fixed Rate and serialization of the maturities of the Series 1996 Bonds available upon request by telephone (promptly confirmed in writing), telegram, telex, or other similar communication to the Authority, the Trustee, the Credit Provider and the Liquidity Provider. In addition to determining a Fixed Rate, the Remarketing Agent shall determine a Weekly Rate pursuant to Section 2.06(d) and give notice thereof to the Tender Agent, the Bond Registrar, the Trustee, the Credit Provider and the Liquidity Provider, which Weekly Rate shall take effect if needed pursuant to Section 2.06(q).

(q) Conditions on which Conversion to Fixed Rate Ineffective. Notwithstanding the delivery of notice of a Fixed Rate conversion pursuant to Section 2.06(o) above, conversion of Series 1996 Bonds to a Fixed Rate Period shall not take effect:

- (i) if the Authority withdraws such notice of conversion not later than the Business Day preceding the date on which the Fixed Rate is to be determined;
- (ii) if the Remarketing Agent fails to determine a Fixed Rate;
- (iii) if any notice required by Section 2.06(o) is not given when required; or
- (iv) if upon the conversion, any Fixed Rate Series 1996 Bonds would be provided by the Provider unless the Liquidity Provider consents.

In any of such events, the Series 1996 Bonds shall automatically be converted to a Weekly Rate for a Weekly Rate Period which shall commence on the date the Fixed Rate conversion was to be made, provided that the mandatory tender for purchase pursuant to Sections 3.08 and 3.09 shall nevertheless be carried out if notice of the Fixed Rate conversion had been given to the Owners of the Series 1996 Bonds. Withdrawal of a conversion notice shall be given by the Authority to the Trustee, the Tender Agent, the Bond Registrar, the Remarketing Agent, the Credit Provider and the Liquidity Provider, by telephone, promptly confirmed in writing. No cancellation of a Fixed Rate conversion pursuant to this subsection shall constitute an Event of Default hereunder. If the Series 1996 Bonds are converted to a Weekly Rate, and the Remarketing Agent fails to set a Weekly Rate, the Weekly Rate shall be the per annum rate of interest determined on each Thursday (or if such day is not a Business Day, the immediately preceding Business Day) by the Trustee which is equal to the lesser of the Maximum Rate and (1) so long as the Series 1996 Bonds shall remain Taxable Bonds, a rate equal to the bond equivalent yield on ninety-one day United States Treasury Bills, plus 50 basis points, which yield shall be calculated in accordance with standard practices in the banking industry on the basis of the discount rates at which such bills were sold, or (2) should the Series 1996 Bonds cease to be Taxable Bonds, a rate equal to the most recently published Bond Buyer 25 Bond Revenue Index (or a comparable index, if such index is no longer published), plus 50 basis points.

(r) Effect of Conversion to Fixed Rate. Once the Authority has effectively exercised its option to convert the Series 1996 Bonds to a Fixed Rate pursuant to this Section 2.06, the Authority shall have no further options to convert the Series 1996 Bonds to any other Rate

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Period, and the Series 1996 Bonds shall no longer be payable from or secured by the Liquidity Facility or subject to tender for purchase.

#### SECTION 2.07. COMPLETION BONDS.

(a) General. In addition to the Bonds authorized to be issued under the provisions of Section 2.06, Completion Bonds may be issued pursuant to this Section 2.07 and secured by this Indenture from time to time, on a parity with any other Outstanding Bonds, in an aggregate amount not to exceed 10% of the original estimated Cost of any Project financed from the proceeds of Bonds at the time of the issuance of such Bonds. Completion Bonds shall be issued for the purpose of providing funds to pay all or a part of the Cost of completing the Project financed from the proceeds of such Bonds, in the manner hereinafter provided and, as shall be specified in the Supplemental Indenture authorizing the issuance of such Completion Bonds, to make deposits to the Funds and Accounts and pay other costs of issuance and expenses relating thereto.

(b) Application of Proceeds. The proceeds (including Capitalized Interest and accrued interest, if any) of the Completion Bonds shall be applied by an Authorized Officer as follows (or shall otherwise be set forth in the Supplemental Indenture authorizing the issuance of such Completion Bonds):

(i) the amount, if any, received as Capitalized Interest on the Completion Bonds shall be delivered to the Trustee for deposit to the credit of the applicable Account or Subaccount of the Construction Fund, pursuant to Section 4.01 and the amount, if any received as accrued interest on the Completion Bonds shall be delivered to the Trustee for deposit to the credit of the Sinking Fund;

(ii) the amount estimated by an Authorized Officer to be sufficient for that purpose shall be delivered to the Trustee for deposit to the credit of a special account and applied to the payment of the expenses of issuing the Completion Bonds, including, but not limited to, financial advisory, accounting and legal fees, rating agency fees, printing costs, initial Bond Registrar fees, initial Paying Agent fees, initial Trustee fees, Credit Facility and Liquidity Facility fees and expenses, if any, and any other miscellaneous expenses relating to the issuance of the Completion Bonds;

(iii) the amount necessary to make the amount on deposit therein equal to the applicable Debt Service Reserve Fund Requirement, as may be limited by Section 2.01 or by any Supplemental Indenture authorizing the issuance of the Completion Bonds, shall be delivered to the Trustee for deposit to the credit of the Account of the Debt Service Reserve Fund created for such Completion Bonds; and

(iv) the balance of the proceeds of the Completion Bonds remaining after the deposits made pursuant to clauses (i) through (iii) above have been made shall be delivered to the Trustee for deposit to the credit of the appropriate Account or Subaccount in the Construction Fund for application to the payment of the Cost of the Project to be completed from the proceeds of such Completion Bonds.

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thereto. The Additional Bonds shall be issued in an aggregate principal amount set forth in a Supplemental Indenture authorizing their issuance.

(b) Application of Proceeds. The proceeds (including Capitalized Interest and accrued interest) of the Additional Bonds shall be applied by an Authorized Officer as follows (or as shall otherwise be set forth in the Supplemental Indenture authorizing the issuance of such Additional Bonds):

(i) the amount, if any, received as Capitalized Interest on the Additional Bonds shall be delivered to the Trustee for deposit to the credit of the applicable Account or Subaccount in the Construction Fund pursuant to Section 4.01 and the amount, if any, received as accrued interest on the Additional Bonds shall be delivered to the Trustee for deposit to the credit of Sinking Fund;

(ii) the amount estimated by an Authorized Officer to be sufficient for that purpose shall be delivered to the Trustee for deposit to the credit of a special account and applied to the payment of the expenses of issuing the Additional Bonds, including, but not limited to, financial advisory, accounting and legal fees, rating agency fees, printing costs, initial Bond Registrar fees, initial Paying Agent fees, initial Trustee fees, Credit Facility and Liquidity Facility fees and expenses, if any, and any other miscellaneous expenses relating to the issuance of such Bonds;

(iii) the amount necessary to make the amount on deposit therein equal to the applicable Debt Service Reserve Fund Requirement, as may be limited by Section 2.01 or by the Supplemental Indenture authorizing the issuance of such Additional Bonds, shall be delivered to the Trustee for deposit to the credit of the appropriate Account of the Debt Service Reserve Fund; and

(iv) the balance of the proceeds of the Additional Bonds remaining after the deposits made pursuant to clauses (i) through (iii) above have been made shall be delivered to the Trustee for deposit to the credit of the applicable Account or Subaccount

<sup>3</sup> The Third Supplemental Trust Indenture to Amended and Restated Indenture amended this paragraph to read as follows:

"In addition to the Bonds authorized under Sections 2.06 and 2.07, Additional Bonds may be issued pursuant to this Section 2.08 and secured by this Indenture from time to time, on a parity with any other Outstanding Bonds, subject to the conditions hereinafter provided in this Section 2.08, (i) for the purpose of providing funds, together with other legally available funds, to pay all or any part of the Cost of a Project, and, as shall be specified in the Supplemental Indenture authorizing the issuance of such Additional Bonds, to make deposits to the Funds and Accounts and pay other costs of issuance and expenses relating thereto, or (ii) to finance Hedge Charges including, without limitation, termination payments relating to Hedge Agreements. The Additional Bonds shall be issued in an aggregate principal amount set forth in a Supplemental Indenture authorizing their issuance."

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(c) Conditions Precedent to issuance of Completion Bonds. Completion Bonds shall be authenticated by the Bond Registrar and delivered by the Trustee in such manner as shall be specified in writing by an Authorized Officer, but only after the Completion Bonds shall have been executed as provided in this Indenture and there shall have been obtained and delivered to the Trustee, the following:

(i) a copy of this Indenture, including all Supplemental Indenture entered into prior to this issuance of such Completion Bonds and particularly the Supplemental Indenture authorizing the issuance of such Completion Bonds;

(ii) a certificate of the Consulting Engineer stating the original estimated Cost of the Project to be completed at the time of issuance of the Bonds originally issued to finance such Project, that such estimated Cost will be exceeded, the Cost of completing such 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;

(iii) a written opinion or opinions of Bond Counsel stating that it is of the opinion 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, that this Indenture creates a valid and enforceable pledge of the Trust Estate, and that the issuance of the Completion Bonds will not adversely affect the exclusion of interest on any Bonds from gross income for federal income tax purposes;

(iv) a certificate of an Authorized Officer to the effect that no Event of Default has occurred and is continuing as of the date of issuance of such Completion Bonds (except any Event of Default that may be cured by application of the proceeds of such Completion Bonds); and

(v) an amount equal to that amount which the Authority shall have determined to be the purchase price for such Completion Bonds.

The Authority covenants that it will not issue Completion Bonds without the prior written consent of the Initial Reserve Facility Provider so long as there shall be due and owing at the time of such issuance any Policy Costs.

#### SECTION 2.08. ADDITIONAL BONDS.

(a) General. In addition to the Bonds authorized under the provisions of Sections 2.06 and 2.07, Additional Bonds may be issued pursuant to this Section 2.08 and secured by this Indenture from time to time, on a parity with any other Outstanding Bonds, subject to the conditions hereinafter provided in this Section 2.08, for the purpose of providing funds, together with other legally available funds, to pay all or any part of the Cost of a Project, and, as shall be specified in the Supplemental Indenture authorizing the issuance of such Additional Bonds, to make deposits to the Funds and Accounts and pay other costs of issuance and expenses relating

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of the Construction Fund for application to the payment of the Cost of the Project financed by such Bonds."

(c) Conditions Precedent to Issuance of Additional Bonds. Additional Bonds shall be authenticated by the Bond Registrar and delivered by the Trustee in such manner as shall be specified in writing by an Authorized Officer, but only after such Bonds shall have been executed as provided in this Indenture and there shall have been obtained and delivered to the Trustee (and in the case of clauses (v) and (vi) below, to the Department), the following:

(i) a copy of this Indenture, including all Supplemental Indentures entered into prior to this issuance of such Additional Bonds and particularly the Supplemental Indenture authorizing the issuance of such Additional Bonds;

(ii) a written opinion or opinions of Bond Counsel stating that it is of the opinion that the issuance of such Additional Bonds has been duly authorized, that all conditions precedent to the delivery of such Bonds have been provided for or fulfilled or otherwise satisfied, that this Indenture creates a valid and enforceable pledge of the Trust Estate, and that the issuance of the Additional Bonds will not adversely affect the exclusion of interest on any Bonds from gross income for federal income tax purposes;

(iii) a certificate of an Authorized Officer to the effect that no Event of Default has occurred and is continuing as of the date of issuance of such Additional Bonds (except any Event of Default that may be cured by application of the proceeds of such Bonds);

(iv) an amount equal to that amount which the Authority shall have determined to be the purchase price for such Bonds;

(v) A copy of a certificate signed by an Authorized Officer stating the amount of Test Period Revenues projected to be received by the Authority during the current Fiscal Year and each full Fiscal Year to and including the fifth full Fiscal Year following the projected date when the Project to be financed from the proceeds of such Additional Bonds will be placed in service (the "Test Period"). "Test Period Revenues" shall mean, for the purposes hereof, the Net Revenues during the Test Period, as determined by the

<sup>4</sup> The Third Supplemental Trust Indenture to Amended and Restated Trust Indenture amended this paragraph to read as follows:

"the balance of the proceeds of the Additional Bonds remaining after the deposits made pursuant to clauses (i) through (iii) above have been made shall be delivered to the Trustee for deposit (A) in connection with Additional Bonds authorized by clause (i) of subsection (a) of this Section 2.08, to the credit of the applicable Account or Subaccount of the Construction Fund for application to the payment of the Cost of the Project financed by such Additional Bonds, and (B) in connection with Additional Bonds authorized by clause (ii) of subsection (a) of this Section 2.08, in such manner as shall be specified in the Supplemental Indenture authorizing the issuance of such Additional Bonds for application to the payment of those Hedge Charges financed thereby as provided in the Supplemental Indenture authorizing the issuance thereof."

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Authorized Officer, further adjusted by the Authorized Officer to reflect 100% of the additional Revenues which, in the opinion of the Consulting Engineer, would be received from increases in Tolls, rates, fees, rentals and other charges relating to the System scheduled to take effect during the Test Period (provided that such increases must be adopted as of the date the certification is made and such increases must be effective on, or scheduled to become effective no later than eighteen months from, the date on which such certificate is made and must remain in effect for the entirety of the Test Period);

(vi) A written opinion of the Consulting Engineer stating that (A) the projections of Test Period Revenues set forth in the certificate of the Authorized Officer delivered pursuant to clause (v) immediately above are reasonable, and (B) the Test Period Revenues are sufficient to enable the Authority to comply with all of the requirements of Section 5.01(b) over the entirety of the Test Period, taking into account the additional Principal and Interest Requirements of the Additional Bonds proposed to be issued;

(vii) Either (A) A certificate of the Department stating that, at the time the Additional Bonds are to be issued, (1) the Authority is current in the payment to the Department of any unpaid Non-contingent Portion of Annual Repayment Requirements, (2) there is not any unpaid Contingent Portion of Annual Repayment Requirements, and (3) the Department acknowledges that Revenues, based on the opinion of the Consulting Engineer, are projected to be sufficient to pay when due the Annual Repayment Requirements after taking into account the debt service requirements of the Additional Bonds, or (B) if, at the time the Additional Bonds are to be issued (1) the Authority is not current in the payment to the Department of any unpaid Non-contingent Portion of Annual Repayment Requirements, (2) there shall be any unpaid Contingent Portion of Annual Repayment Requirements, or (3) Revenues, based on the opinion of the Consulting Engineer, are projected to be insufficient to pay when due the Annual Repayment Requirements after taking into account the debt service requirements of the Additional Bonds, a written consent from the Department to the issuance of such Bonds; and

(viii) A certificate of the Department to the effect that the Authority has delivered to the Department a certificate prepared in accordance Section 2.08(c)(vi) of this Indenture and prepared as though the scheduled debt service payments required to be made by the Authority to the Department under such State Infrastructure Bank Loan Agreements then in effect between the Authority and the Department constitute a component of Annual Repayment Requirements.

The Authority covenants that it will not issue Additional Bonds without the prior written consent of the Initial Reserve Facility Provider so long as there shall be due and owing at the time of such issuance any Policy Costs.

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specified in writing by an Authorized Officer, but only after such Bonds shall have been executed as provided in this Indenture and there shall have been obtained and delivered to the Trustee, the following:

(i) a copy of this Indenture, including all Supplemental Indenture entered into prior to this issuance of such Refunding Bonds and particularly the Supplemental Indenture authorizing the issuance of such Refunding Bonds;

(ii) a written opinion or opinions of Bond Counsel stating that it is of the opinion that the issuance of such Refunding Bonds has been duly authorized, that all conditions precedent to the delivery of such Bonds have been provided for or fulfilled or otherwise satisfied, that this Indenture creates a valid and enforceable pledge of the Trust Estate, and that the issuance of the Refunding Bonds will not adversely affect the exclusion of interest on any Bonds from gross income for federal income tax purposes;

(iii) a certificate of an Authorized Officer to the effect that no Event of Default has occurred and is continuing as of the date of issuance of such Refunding Bonds (except any Event of Default that may be cured by application of the proceeds of such Bonds);

(iv) an amount equal to that amount which the Authority shall have determined to be the purchase price for such Bonds;

(v) either (A) a certificate signed by an Authorized Officer, confirming that the annual Principal and Interest Requirements for each Fiscal Year in which the Bonds to be refunded would be Outstanding but for such refunding for all Outstanding Bonds following issuance of the Refunding Bonds with respect to which the certificate is made (excluding any Bonds being defeased by proceeds of the Refunding Bonds) is not greater than the annual Principal and Interest Requirements for each Fiscal Year for all Outstanding Bonds prior to issuance of such Refunding Bonds, or (B) in lieu thereof, the certificate required by Section 2.08(c)(v) and the opinion required by Section 2.08(c)(vi), each prepared as though the Refunding Bonds constitute a Series of Additional Bonds and as though the Test Period shall commence on the date of issuance of such Refunding Bonds, and under the circumstances set forth in Section 2.08(c)(vii), the written consent of the Department described therein; and

(vi) Where the Authority shall have satisfied the requirements of Section 2.08(c)(v)(B) above with respect to such Refunding Bonds, a certificate of the Department to the effect that the Authority has delivered to the Department a certificate prepared in accordance Section 2.08(c)(vi) of this Indenture and prepared as though the scheduled debt service payments required to be made by the Authority to the Department under such State Infrastructure Bank Loan Agreements then in effect between the Authority and the Department constitute a component of Annual Repayment Requirements.

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## SECTION 2.09. REFUNDING BONDS.

(a) **General.** In addition to the Bonds authorized under the provisions of Sections 2.06, 2.07 and 2.08, Refunding Bonds may be issued pursuant to this Section 2.09 and secured by this Indenture from time to time on a parity with any other Outstanding Bonds, subject to the conditions hereinafter provided in this Section 2.09, for the purpose of providing funds, together with other legally available funds, for refunding all or any portion of the Outstanding Bonds of any one or more Series issued under the provisions of this Indenture, including the payment of all amounts necessary to defease the Outstanding Bonds to be refunded in accordance with the provisions thereof, and, as shall be specified in the Supplemental Indenture authorizing the issuance of a Series of Refunding Bonds, to make deposits to the Funds and Accounts and pay other costs of issuance and expenses relating thereto.

(b) **Application of Proceeds.** The proceeds (including Capitalized Interest and accrued interest) of the Refunding Bonds, as applicable, shall be applied by an Authorized Officer as follows (or in such other manner as shall be set forth in the Supplemental Indenture authorizing the issuance of such Series of Refunding Bonds):

(i) the amount, if any, received as Capitalized Interest on the Refunding Bonds shall be delivered to the Trustee for deposit to the credit of the applicable Account or Subaccount in the Construction Fund pursuant to Section 4.01 and the amount, if any, received as accrued interest on the Refunding Bonds shall be delivered to the Trustee for deposit to the credit of Sinking Fund;

(ii) the amount estimated by an Authorized Officer to be sufficient for that purpose shall be delivered to the Trustee for deposit to the credit of a special account and applied to the payment of the expenses of issuing the Refunding Bonds, including, but not limited to, financial advisory, accounting and legal fees, rating agency fees, printing costs, initial Bond Registrar fees, initial Paying Agent fees, initial Trustee fees, Credit Facility and Liquidity Facility fees and expenses, if any, and any other miscellaneous expenses relating to the issuance of such Bonds;

(iii) the amount necessary to make the amount on deposit therein equal to the applicable Debt Service Reserve Fund Requirement, as may be limited by Section 2.01 or by the Supplemental Indenture authorizing the issuance of such Bonds, shall be delivered to the Trustee for deposit to the credit of the appropriate Account of the Debt Service Reserve Fund; and

(iv) the balance of the proceeds of the Refunding Bonds remaining after the deposits made pursuant to clauses (i) through (iii) above have been made shall be applied to pay or provide for the payment of the Bonds to be refunded thereby in such manner as shall satisfy the conditions of Article XII to the release of the lien of the Trust Estate and this Indenture in favor of such Bonds.

(c) **Conditions Precedent to Issuance of Refunding Bonds.** Refunding Bonds shall be authenticated by the Bond Registrar and delivered by the Trustee in such manner as shall be

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The Authority covenants that it will not issue Refunding Bonds without the prior written consent of the Initial Reserve Facility Provider so long as there shall be due and owing at the time of such issuance any Policy Costs.

**SECTION 2.10. PREPARATION OF DEFINITIVE BONDS; TEMPORARY BONDS.** The definitive Bonds of each Series shall be lithographed or printed with or without steel engraved borders. Until the definitive Bonds of any Series are ready for delivery, there may be executed, and an Authorized Officer may deliver, or cause the Bond Registrar to deliver, in lieu of definitive Bonds and subject to the same limitations and conditions, except as to identifying numbers, temporary printed, engraved, lithographed or typewritten Bonds in Authorized Denominations substantially of the tenor hereinabove set forth, and with appropriate omissions, insertions and variations as may be required. The Authority shall cause the definitive Bonds to be prepared and to be executed, endorsed and delivered to the Bond Registrar, on behalf of the Authorized Officer, and the Bond Registrar, upon presentation to it of any temporary Bond, shall cancel the same and authenticate and deliver, in exchange therefor, at the place designated by the Owner, without expense to the Owner, a definitive Bond or Bonds of the same Series and in the same aggregate principal amount, maturing on the same date and bearing interest at the same rate as the temporary Bond surrendered. Until so exchanged, the temporary Bonds shall in all respects, including the privilege of registration if so provided, be entitled to the same benefit of this Indenture as the definitive Bonds to be issued and authenticated hereunder. The Bond Registrar shall promptly destroy all temporary Bonds that have been canceled and shall submit a certificate to the Chairman certifying that such temporary Bonds have been canceled and destroyed. Notwithstanding the foregoing, the definitive Series 1996 Bonds may be issued in typewritten form and a Supplemental Indenture authorizing the issuance of a Series of Bonds may provide for the definitive Bonds of a Series to be in typewritten form or in such other form as provided therein.

**SECTION 2.11. MUTILATED, DESTROYED, STOLEN OR LOST BONDS.** In case any Bonds secured hereby shall become mutilated or be destroyed, stolen or lost, the Authority may cause to be executed, and the Bond Registrar shall authenticate and deliver, a new Bond of like series, date, maturity, denomination and interest rate in exchange and substitution for and upon the cancellation of, such mutilated Bond or in lieu of and in substitution for such Bond destroyed, stolen, or lost, upon the Owner's paying the reasonable expenses and charges of the Authority in connection therewith and, in the case of a Bond destroyed, stolen or lost, his filing with the Authority and Bond Registrar evidence satisfactory to them that such Bond was destroyed, stolen or lost, and of his ownership thereof, and furnishing the Authority and Bond Registrar with indemnity satisfactory to them. In the event any such Bond shall be about to mature or has matured or been called for redemption, instead of issuing a duplicate Bond, the Authority may direct the Paying Agent to pay the same without surrender thereof. Any Bond surrendered for replacement shall be canceled in the same manner as provided in Section 2.05.

Any such duplicate Bonds issued pursuant to this Section 2.11 shall constitute additional contractual obligations on the part of the Authority and the Trustee, whether or not the lost, stolen or destroyed Bonds are at any time found, and such duplicate Bonds shall be entitled to equal and proportionate benefits and rights as to lien on and source and security for payment

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from the Revenues and moneys on deposit in the Funds and Accounts with all other Bonds issued hereunder.

**SECTION 2.12. BOOK-ENTRY SYSTEM FOR SERIES 1996 BONDS.** The Series 1996 Bonds shall be initially issued in the name of Cede & Co., as nominee for DTC as the initial Securities Depository and Owner of the Series 1996 Bonds, and may be held in the custody of or by the Trustee for the account of the Securities Depository. A single certificate will be issued and delivered to the Securities Depository for each maturity of the Series 1996 Bonds (except as otherwise required by DTC). The ultimate purchasers of ownership interests in the Series 1996 Bonds (the "Beneficial Owners") will not receive physical delivery of Series 1996 Bond certificates except as provided herein. For so long as the Securities Depository shall continue to serve as securities depository for the Series 1996 Bonds as provided herein, all transfers of beneficial ownership interests will be made by book-entry only, and no investor or other party purchasing, selling or otherwise transferring beneficial ownership of Series 1996 Bonds is to receive, hold or deliver any Bond certificate.

The Authority and the Trustee shall treat the Securities Depository (or its nominee) as the sole and exclusive Owner of the Series 1996 Bonds registered in its name for the purposes of payment of the principal of and interest on or Redemption Price, if any, of the Series 1996 Bonds or portion thereof to be redeemed, and of giving any notice permitted or required to be given to Series 1996 Bondholders under this Indenture and neither the Authority nor the Trustee shall be affected by any notice to the contrary. Neither the Authority nor the Trustee shall have any responsibility or obligations to the Securities Depository, any Participant, any Beneficial Owner or any other Person which is not shown on the bond registration books maintained by the Bond Registrar, with respect to the accuracy of any records maintained by the Securities Depository or any Participant; the payment by the Securities Depository or any Participant of any amount in respect of the principal of and interest on the Series 1996 Bonds; any notice which is permitted or required to be given to Series 1996 Bondholders under this Indenture; the selection by the Securities Depository or any Participant of any Person to receive payment in the event of a partial redemption of the Series 1996 Bonds; or any consent given or other action taken by the Securities Depository as a Series 1996 Bondholder. The Trustee shall pay all principal of and interest on or Redemption Price, if any, of the Series 1996 Bonds registered in the name of Cede & Co. only to or "upon the order of" the Securities Depository (as that term is used in the Uniform Commercial Code as adopted in Florida), and all such payments shall be valid and effective to fully satisfy and discharge the Authority's obligations with respect to the principal of and interest on or Redemption Price, if any, of such Series 1996 Bonds to the extent of the sum or sums so paid.

The Authority and the Trustee covenant and agree, so long as DTC shall continue to serve as Securities Depository for the Series 1996 Bonds, to meet the requirements of DTC with respect to required notices and other provisions of the Letter of Representations executed with respect to the Series 1996 Bonds.

The Authority may rely conclusively upon (i) a certificate of the Securities Depository as to the identity of the Participants in the Book-Entry System with respect to the Series 1996

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## ARTICLE III

### REDEMPTION AND TENDER FOR PURCHASE OF BONDS

**SECTION 3.01. REDEMPTION DATES AND PRICES.** Bonds other than the Series 1996 Bonds shall be subject to redemption in the manner set forth, if any, in the Supplemental Indenture authorizing the issuance of such Bonds. The Series 1996 Bonds may not be called for redemption by the Authority except as provided below:

(a) (i) The Series 1996 Bonds bearing interest at Daily, Weekly, Monthly, Quarterly, Semiannual or Extended Rates (but only if the Extended Rate Period is one year in duration) are subject to optional redemption from Eligible Funds prior to their stated maturity upon request of the Authority in whole or in part at any time at a price equal to the principal amount thereof, without premium, plus accrued interest thereon to the redemption date.

(ii) The Series 1996 Bonds bearing interest at Extended Rates (but only if the Extended Rate Period is more than one year in duration) or the Fixed Rate are subject to optional redemption from Eligible Funds (or from moneys that are not Eligible Funds if there shall not be a Credit Facility in place at the time of such redemption or if the Credit Facility in place at the time of such redemption is a policy of municipal bond insurance) prior to their stated maturity upon request of the Authority in whole or in part at the times and at the prices set forth below, and in such amounts and of such maturities as the Authority shall direct, plus accrued interest thereon to the redemption date:

| Years Remaining from Conversion Date until end of Extended Rate Period or Final Maturity of Bonds in the Fixed Rate Period | First Day of Redemption Period         | Redemption Price                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| More than fifteen                                                                                                          | Tenth anniversary of Conversion Date   | 102% declining by 1% on each succeeding anniversary of the tenth anniversary of the Conversion Date until reaching 100% and thereafter at 100%   |
| More than seven but not more than fifteen                                                                                  | Seventh anniversary of Conversion Date | 102% declining by 1% on each succeeding anniversary of the seventh anniversary of the Conversion Date until reaching 100% and thereafter at 100% |

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Bonds and (ii) a certificate of any such Participant as to the identity of, and the respective principal amount of Series 1996 Bonds beneficially owned by, the Beneficial Owners.

Whenever, during the term of the Series 1996 Bonds, the beneficial ownership thereof is determined by a book-entry at the Securities Depository, the requirements in this Indenture of holding, delivering or transferring Series 1996 Bonds shall be deemed modified to require the appropriate Person to meet the requirements of the Securities Depository as to registering or transferring the book-entry to produce the same effect. Any provision hereof permitting or requiring delivery of Series 1996 Bonds shall, while the Series 1996 Bonds are in a Book-Entry System, be satisfied by the notation on the books of the Securities Depository in accordance with the law of the State.

The Trustee and the Authority, at the direction and expense of the Authority, may from time to time appoint a successor Securities Depository and enter into an agreement with the Securities Depository, to establish procedures with respect to the Series 1996 Bonds not inconsistent with the provisions of this Indenture. Any successor Securities Depository shall be approved by the Trustee and shall be a "clearing agency" registered under Section 17A of the Securities Exchange Act of 1934, as amended.

The Trustee and the Authority, at the direction and expense of the Authority, will cause the delivery of bond certificates to each Beneficial Owner, registered in the name of such Beneficial Owner, under the following circumstances:

(a) The Securities Depository determines to discontinue providing its service with respect to the Series 1996 Bonds and no successor Securities Depository is appointed as described above. Such a determination may be made at any time by giving 30 days' written notice to the Authority and the Trustee and discharging its responsibilities with respect thereto under applicable law; or

(b) The Authority determines not to continue the Book-Entry System through a Securities Depository.

The Trustee is hereby authorized to make such changes to the form of Bonds attached hereto as Exhibit C which are not inconsistent with this Indenture and which are necessary or appropriate upon the appointment of a successor Securities Depository or while the Book-Entry System is not in effect.

If at any time, the Securities Depository ceases to hold the Series 1996 Bonds, thereafter all references herein to the Securities Depository shall be of no further force or effect.

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| Years Remaining from Conversion Date until end of Extended Rate Period or Final Maturity of Bonds in the Fixed Rate Period | First Day of Redemption Period        | Redemption Price                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| More than five but not more than seven                                                                                     | Fourth anniversary of Conversion Date | 101% declining by 1% on the next anniversary after the fourth anniversary of the Conversion Date and thereafter at 100% |
| Five or fewer                                                                                                              | Not callable                          |                                                                                                                         |

Notwithstanding any provision in this Indenture or the Series 1996 Bonds to the contrary, this Indenture and the Bonds may be amended as of the Conversion Date upon the request of the Authority, without the consent of any of the Bondholders, to change the redemption provisions applicable during an Extended Rate Period or the Fixed Rate Period to such redemption provisions as are acceptable to the Authority provided the Authority provides an Opinion of Bond Counsel to the Trustee to the effect that such amendment will not adversely affect the exclusion from gross income of interest on the Bonds for purposes of federal income taxation.

(iii) Prior to notice being given to the Owners of affected Series 1996 Bonds of any optional redemption of Series 1996 Bonds under this Section 3.01(a), either (A) there shall be deposited with the Trustee an amount sufficient to pay the principal amount of the Series 1996 Bonds subject to redemption, plus accrued interest to the redemption date, plus any premium applicable to such redemption, or (B) such notice shall state that the redemption is conditioned on the receipt of moneys for such redemption by the Trustee on or prior to the redemption date. In the event that a conditional notice of redemption is given and such moneys are not timely received, the redemption for which such notice was given shall not be undertaken. Amounts deposited pursuant to this paragraph shall be kept by the Trustee in a trust account separate and segregated from all other moneys deposited under this Indenture and shall be held uninvested unless invested at the direction of an Authorized Officer only in Government Obligations that mature on or before the redemption date. If the redemption price is required to be paid with Eligible Funds as specified in Section 3.01(a)(i) or (ii), the Trustee shall cancel the redemption of the Series 1996 Bonds if it determines that sufficient Eligible Funds will not be available on the redemption date. It is understood that the Initial Credit Facility and the Initial Liquidity Facility are not available to provide Eligible Funds for the payment of any redemption under this Section.

(b) The Series 1996 Bonds shall be redeemed in whole or in part in such amounts and of such maturities as the Authority shall direct at any time at a redemption price equal to 100% of the principal amount thereof plus accrued interest, if any, to the redemption date upon receipt by the Trustee of a written notice from the Authority stating that either of the following events has occurred:

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(1) all or substantially all of the System shall be damaged or destroyed and the Authority shall determine that it is not practicable or desirable to rebuild, repair and restore the same; or

(2) all or substantially all of the System shall be condemned or such use or control thereof shall be taken by eminent domain as to render the same unsatisfactory to the Authority for continued operation.

Any such redemption pursuant to this Section 3.01(b) prior to the Fixed Rate Conversion Date shall be made only from Eligible Funds.

(c) Provider Bonds are subject to redemption prior to maturity at the option of the Authority as a whole or in part in such amounts and of such maturities as the Authority may direct on any date at the principal amount thereof, without premium, plus interest accrued thereon to the redemption date.

(d) The Series 1996 Bonds are also subject to redemption prior to maturity at a redemption price equal to the principal amount thereof, plus accrued interest, by application by the Trustee of funds on deposit to the credit of the Sinking Fund on July 1 in the years and in the principal amounts as follows:

| YEAR  | AMOUNT      |
|-------|-------------|
| 1999  | \$1,000,000 |
| 2000  | 1,800,000   |
| 2001  | 2,000,000   |
| 2002  | 2,200,000   |
| 2003  | 2,300,000   |
| 2004  | 2,500,000   |
| 2005  | 2,600,000   |
| 2006  | 2,800,000   |
| 2007  | 3,000,000   |
| 2008  | 3,200,000   |
| 2009  | 3,400,000   |
| 2010  | 3,600,000   |
| 2011  | 3,900,000   |
| 2012  | 4,100,000   |
| 2013  | 4,400,000   |
| 2014  | 4,700,000   |
| 2015  | 4,900,000   |
| 2016  | 5,400,000   |
| 2017  | 5,600,000   |
| 2018  | 6,100,000   |
| 2019* | 10,500,000  |

\*By operation of maturity.

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such Bonds shall have no rights in respect thereof except to receive payment of the Redemption Price thereof. Bonds and portions of Bonds for which irrevocable instructions to pay on one or more specified dates or to call for redemption at the redemption date have been given to the Trustee in form satisfactory to it shall not thereafter be deemed to be Outstanding under this Indenture and shall cease to be entitled to the security of or any rights under this Indenture, other than rights to receive payment of the Redemption Price thereof, to be given notice of redemption in the manner provided in Section 3.02, and, to the extent hereinafter provided, to receive Bonds for any unredemmed portions of Bonds, if money or Escrow Securities, or a combination of both, sufficient to pay the Redemption Price of such Bonds or portions thereof, are held in separate accounts by the Trustee in trust for the Owners of such Bonds. All money held by the Trustee under this Section 3.05 for the redemption of Bonds after the Redemption Date shall be held uninvested or invested at the written direction of the Authority in Government Obligations that mature on or before the redemption date.

For purposes of this Article III, Escrow Securities shall be deemed to be sufficient to redeem Bonds on a specified date if the principal of and the interest on such Escrow Securities, when due, will be sufficient to pay on such date the Redemption Price of such Bonds to such date.

If a portion of an Outstanding Bond shall be selected for redemption, the Owner thereof or his attorney or legal representative shall present and surrender such Bond to the Bond Registrar for payment of the Redemption Price of the portion thereof called for redemption, and the Authority shall execute and the Bond Registrar shall authenticate and deliver to or upon the order of such Owner or his legal representative, without charge therefor, for the unredemmed portion of the principal amount of the Bond so surrendered, a Bond of the same stated maturity and bearing interest at the same rate.

**SECTION 3.06. EXPENSES OF REDEMPTION.** The expenses of any redemption of Bonds pursuant to this Article shall be paid from the Revenue Fund.

**SECTION 3.07. OPTIONAL TENDERS BY OWNERS DURING VARIABLE RATE PERIODS.** (a) **Purchase Dates.** During any Variable Rate Period a beneficial owner of the Series 1996 Bonds (other than Provider Bonds) may elect to have its Series 1996 Bonds (or portions thereof in Authorized Denominations) purchased at the Purchase Price, on the following Purchase Dates by causing the Direct Participant through whom such beneficial owner owns such Series 1996 Bond to give the following irrevocable telephonic or written notices meeting the further requirements of subsection (b) of this Section 3.07 and upon transfer on the registration books of DTC on the same day such notice is given of the beneficial ownership interest in such Series 1996 Bonds to the account of the Trustee, "free delivery" for settlement on the Purchase Date:

(i) Series 1996 Bonds bearing interest at Daily Rates may be tendered for purchase on any Business Day upon telephonic notice of tender given to the Trustee not later than 10:30 a.m., Eastern time, on the Purchase Date;

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(e) If less than all of the Bonds of a Series or of any one maturity of a Series shall be called for redemption, the particular Bonds to be redeemed shall be selected by the Trustee in such manner as the Trustee in his discretion deems fair and appropriate except to the extent otherwise provided in the Supplemental Indenture authorizing the Bonds of such Series.

**SECTION 3.02. NOTICE OF REDEMPTION.** Except as otherwise provided with respect to a Series of Bonds in the Supplemental Indenture authorizing the issuance of the Bonds of such Series, at least thirty (30) days, but not more than forty-five (45) days, before the redemption date of any Bonds, the Trustee shall cause a notice of such redemption to be: (a) filed with any Paying Agent; (b) sent by telefacsimile followed by first class mail to registered securities depositories and to national information services that disseminate redemption notices; and (c) mailed, postage prepaid, to all Owners of Bonds to be redeemed in whole or in part at their addresses as they appear on the registration books herein provided for. Failure to file any such notice with any Paying Agent or to mail any such notice to any Bondholder or to any securities depository or national information service or any defect therein shall not affect the validity of the proceedings for redemption, except to the extent a Bondholder is prejudiced thereby, and then, only with respect to such Bondholder. Except as otherwise provided with respect to a Series of Bonds in the Supplemental Indenture authorizing the issuance of the Bonds of such Series, each such notice shall set forth: (i) the date fixed for redemption; (ii) the redemption price to be paid; (iii) the CUSIP numbers and the certificate numbers of the Bonds to be redeemed; (iv) the name and address of the Paying Agent for the Bonds; (v) the dated date, interest rate and maturity date of the Bonds; and (vi) if less than all of the Bonds of a Series then Outstanding shall be called for redemption, the amounts of each of the Bonds to be redeemed; and (vii) the name, address and telephone number of a contact for such redemption.

**SECTION 3.03. [RESERVED]**

**SECTION 3.04. REDEMPTION OF PORTIONS OF BONDS.** Except as provided in Section 2.12, any Bond which is to be redeemed only in part shall be surrendered at any place of payment specified in the notice of redemption (with due endorsement by, or written instrument of transfer in form satisfactory to the Bond Registrar duly executed by the Owner thereof or his duly authorized attorney or legal representative in writing) and the Authority shall execute and the Bond Registrar shall authenticate and deliver to the Owner of such Bond, without charge, other than any applicable tax or other governmental charge, a new Bond or Bonds, of any Authorized Denomination, as requested by such Owner in an aggregate principal amount equal to and in exchange for the unredemmed portion of the principal of the Bonds so surrendered.

**SECTION 3.05. EFFECT OF CALL FOR REDEMPTION.** On the date fixed for redemption, notice having been given in the manner and under the conditions hereinabove provided, the Bonds or portions thereof called for redemption shall be due and payable at the Redemption Price provided therefor. If money or Escrow Securities, or a combination of both, sufficient to pay the Redemption Price of the Bonds to be redeemed are held by the Trustee in trust for the Owners of Bonds to be redeemed on the date fixed for redemption, then interest on the Bonds called for redemption shall cease to accrue; such Bonds shall cease to be entitled to any benefits or security under this Indenture or to be deemed Outstanding, and the Owners of

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(ii) Series 1996 Bonds bearing interest at Weekly Rates may be tendered for purchase on any Business Day upon delivery of a written notice of tender to the Trustee not later than 5:00 p.m., Eastern time, on a Business Day not less than seven (7) days prior to the Purchase Date;

(iii) Series 1996 Bonds bearing interest at Monthly, Quarterly or Semiannual Rates may be tendered for purchase on any Interest Payment Date upon delivery of a written notice of tender to the Trustee not later than 5:00 p.m., Eastern time, on a Business Day which is not less than seven (7) days prior to the Interest Payment Date in the case of Series 1996 Bonds bearing interest at Monthly and Quarterly Rates, or fifteen (15) days prior to the Interest Payment Date in the case of Series 1996 Bonds bearing interest at Semiannual Rates; and

(iv) Series 1996 Bonds bearing interest at Extended Rates may be tendered for purchase on the commencement date of any Extended Rate Period (other than the Extended Rate Conversion Date) upon delivery of a written notice of tender to the Trustee not later than 5:00 p.m., Eastern time, on a Business Day which is not less than fifteen (15) days prior to the Purchase Date.

(b) **Notice of Tender.** Each notice of tender:

(i) shall, in the case of a written notice, be delivered to the Trustee at its principal office and be in form satisfactory to the Trustee;

(ii) shall state, whether delivered in writing or by telephone (A) the principal amount of the Series 1996 Bond or portion of the Series 1996 Bond to be purchased, (B) that the Owner irrevocably demands purchase of such Series 1996 Bond or portion thereof, (C) the date on which such Series 1996 Bond or portion is to be purchased, (D) payment instructions, and (E) the DTC number of such Direct Participant; and

(iii) shall automatically constitute, whether delivered in writing or by telephone (A) an irrevocable offer to sell the Series 1996 Bond or portion to which the notice relates on the Purchase Date to any purchaser selected by the Remarketing Agent, at the Purchase Price, (B) an irrevocable authorization and instruction to the Series 1996 Bond Registrar to effect transfer of such Series 1996 Bond or portion upon payment of such price to the Trustee on the Purchase Date, (C) an irrevocable authorization and instruction to the Tender Agent to effect the exchange of the Series 1996 Bond to be purchased in whole or in part for other Series 1996 Bonds of the same maturity in an equal aggregate principal amount so as to facilitate the sale of such Series 1996 Bond or portion, and (D) an acknowledgment that such Owner will have no further rights with respect to such Series 1996 Bond or portion thereof upon payment of the Purchase Price by the Trustee on the Purchase Date to the Direct Participant from whom the notice of tender is received, except for the right of such Owner to receive such Purchase Price upon surrender of such Series 1996 Bond to the Tender Agent.

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The determination of the Trustee as to whether a notice of tender has been properly delivered pursuant to the foregoing shall be conclusive and binding upon the Owner. The Trustee, if other than the Tender Agent, shall promptly notify the Tender Agent of its receipt of each notice given pursuant to this Section. The Trustee shall hold beneficial ownership interests of Series 1996 Bonds delivered to it pursuant to this Section pending settlement in trust for the benefit of the direct participant from whom the beneficial interests in the Series 1996 Bonds are received and shall remit any interest payments received with respect to such Series 1996 Bonds for the period prior to the Purchase Date to such Direct Participant.

(c) **Series 1996 Bonds to be Remarketed.** Not later than 4:30 p.m., Eastern time, on the Business Day immediately following the date of receipt of any notice of tender (or immediately upon such receipt, in the case of Series 1996 Bonds bearing interest at Daily Rates), the Tender Agent shall notify the Remarketing Agent and the Trustee of the principal amount of Series 1996 Bonds or portions thereof to be tendered and remarketed and the date they are to be tendered and remarketed. Such notices shall be given by telephone, telegram, telex or other similar communication and shall be promptly confirmed in writing.

(d) **Remarketing of Tendered Series 1996 Bonds.** The Remarketing Agent shall offer for sale and use its best efforts to find purchasers for all Series 1996 Bonds or portions thereof properly tendered. All Series 1996 Bonds shall be at all times remarketed at the Purchase Price. Notwithstanding the foregoing, the Remarketing Agent shall not offer for sale any Series 1996 Bond if notice of (i) any optional or mandatory redemption, (ii) any conversion from one Variable Rate Period to another or to a Fixed Rate Period has been given to the Owners of the Series 1996 Bonds pursuant to the provisions of this Indenture, or (iii) any defeasance in accordance with the provisions of Article XII has occurred, unless the Remarketing Agent has advised the Person in writing to whom the offer is made of such occurrence and the effect of the same on the rights of such Owners including, but not limited to, the rights of such Owners to tender their Series 1996 Bonds, as described in the conversion notice from the Tender Agent to the Owners of the Series 1996 Bonds.

**SECTION 3.08. MANDATORY TENDERS UPON VARIABLE RATE CONVERSION.** (a) **Purchase Dates.** In the case of any conversion from one Variable Rate Period to another Variable Rate Period (except a conversion between a Daily Rate Period and a Weekly Rate Period), the Series 1996 Bonds to be converted are subject to mandatory tender for purchase on the Conversion Date at the Purchase Price.

(b) **Notice to Owners.** Any notice of a conversion given to Bondholders pursuant to Section 2.06(j) shall, in addition to the requirements of such Section, specify (i) that the Series 1996 Bonds to be converted will be subject to mandatory tender for purchase on the Conversion Date and the time at which Series 1996 Bonds are to be tendered for purchase, and (ii) if appropriate, any requirements imposed by Section 2.06(n).

(c) **Remarketing.** At or before 4:00 p.m., Eastern time, on the Business Day immediately following the last day on which notices of election to tender Series 1996 Bonds may be delivered to the Tender Agent pursuant to Section 3.07 (or immediately upon receipt of such notice in the case of optional tenders of Series 1996 Bonds bearing the Daily Rate), the Tender

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The Remarketing Agent shall offer for sale at par and use its best efforts to find purchasers for the Series 1996 Bonds to be tendered pursuant to Section 3.09(a) and advise them whether the Credit Facility or the Liquidity Facility will be replaced. In the case of replacement of the Credit Facility or Liquidity Facility, the Remarketing Agent shall inform prospective purchasers of the identity of the new Credit Provider or Liquidity Provider and the ratings to be in effect on the Series 1996 Bonds following such replacement. All Series 1996 Bonds shall be at all times remarketed at the Purchase Price.

**SECTION 3.10. PURCHASE OF TENDERED SERIES 1996 BONDS.** (a) **Notices.** At or before 3:30 p.m., Eastern time, on the Business Day immediately preceding the Purchase Date (or 11:00 a.m., Eastern time, on the Purchase Date in the case of Series 1996 Bonds bearing interest at Daily Rates), the Remarketing Agent shall give notice by telephone, telegram, telex or other similar communication to the Trustee of the principal amount of tendered Series 1996 Bonds which have been remarketed and of the names, addresses and taxpayer identification numbers of the purchasers and the denominations of remarketed Series 1996 Bonds to be delivered to each purchaser. On the Purchase Date, the Trustee shall draw on the Liquidity Facility to the extent necessary to timely pay the Purchase Price with regard to the Series 1996 Bonds for which remarketing proceeds (other than proceeds of sale to the Authority) have not been paid to the Trustee. In the case of the Initial Liquidity Facility, such draw shall be made not later than 11:30 a.m., New York City time, on the Purchase Date. In the event that the Trustee does not receive from the Remarketing Agent the notice described in this Section, on the Purchase Date the Trustee shall draw on the Liquidity Facility to the extent necessary to timely pay the Purchase Price of all Series 1996 Bonds subject to tender for purchase on such Purchase Date. In the case of the Initial Liquidity Facility, such draw shall be made not later than 11:30 a.m., New York City time, on the Purchase Date.

(b) **Sources of Payment.** The Remarketing Agent shall pay to the Trustee, on the Purchase Date, all amounts representing proceeds of the remarketing of tendered Series 1996 Bonds, such payments to be made in the manner and at the time specified in Sections 3.07(d), 3.08(c), 3.09(d), 3.10(d) and 3.12(c), as applicable. All such proceeds, the proceeds of a draw upon the Liquidity Facility and all other Eligible Funds shall be held by the Trustee in trust in a separate segregated account. The Liquidity Provider has agreed under the Liquidity Facility to pay, on or before 3:30 p.m., Eastern time, on the Purchase Date, the Purchase Price to the Trustee of such Series 1996 Bonds that have not been remarketed.

(c) **Payments by the Trustee.** Before 4:00 p.m., Eastern time, on the Purchase Date and upon receipt by the Trustee of 100% of the aggregate Purchase Price of the tendered Series 1996 Bonds, the Trustee shall pay the Purchase Price of such Series 1996 Bonds to the Owners thereof (or as otherwise provided in Section 3.07) at its principal office or by bank wire transfer. Such payments shall be made in immediately available funds. Payments of such Purchase Price are to be made from the following sources in the order of priority indicated:

(i) The proceeds of the sale of the Series 1996 Bonds which have been remarketed by the Remarketing Agent (other than proceeds of a sale of the Series 1996 Bonds to the Authority); and

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Agent shall notify the Trustee, the Credit Provider, the Liquidity Provider and the Remarketing Agent, by telephone, telegram, telex or other similar communication, of the aggregate principal amount of Series 1996 Bonds to be tendered for purchase on the Conversion Date or the Purchase Date. At or before 4:00 p.m., Eastern time, on the fifth Business Day immediately preceding the conversion to a Daily, Weekly or Monthly Rate Period or on the seventh calendar day (or, if such day is not a Business Day, on the next succeeding Business Day) preceding the conversion to a Quarterly Rate Period or on the fifteenth calendar day (or, if such day is not a Business Day, on the next succeeding Business Day) preceding the conversion to a Semiannual or Extended Rate Period, the Tender Agent shall notify the Trustee, the Credit Provider, the Liquidity Provider and the Remarketing Agent, by telephone, telegram, telex or other similar communication, of the aggregate principal amount of Series 1996 Bonds to be tendered for purchase on the Conversion Date or the Purchase Date. The Remarketing Agent shall offer for sale and use its best efforts to find purchasers for the Series 1996 Bonds to be tendered. All Series 1996 Bonds shall be at all times remarketed at the Purchase Price.

**SECTION 3.09. MANDATORY TENDERS UPON EXPIRATION, SUBSTITUTION OR TERMINATION OF CREDIT FACILITY OR LIQUIDITY FACILITY.** (a) **Purchase Dates.** Prior to the Fixed Rate Conversion Date of the Series 1996 Bonds, the Series 1996 Bonds shall be subject to mandatory tender for purchase at the Purchase Price:

(i) on a Business Day which is at least five days prior to the date on which the Credit Facility or Liquidity Facility is to be canceled in connection with replacement by an Alternate Credit Facility pursuant to Section 13.03 or an Alternate Liquidity Facility pursuant to Section 13.06, as the case may be; or

(ii) on a Business Day which is at least five days prior to a termination or expiration of the Credit Facility or the Liquidity Facility, including a Termination Event (as defined in the Initial Liquidity Facility) described in a Termination Notice delivered pursuant to Section 2.03 of the Initial Liquidity Facility.

(b) [RESERVED]

(c) **Notice to Owners.** Notice of mandatory tender of Series 1996 Bonds shall be given by mail by the Bond Registrar at the direction of the Trustee to the Owners of said Series 1996 Bonds by first class mail not less than thirty (30) days prior to the mandatory tender date. A copy of such notice shall be sent to the Authority and the Trustee. Notice having been so given, such mandatory tender shall occur on the date provided in such notice whether or not an Alternate Credit Facility or Liquidity Facility, as the case may be, is provided after such initial notice has been given.

(d) **Remarketing.** On the Business Day on which the first notice is mailed pursuant to 3.09(c), the Trustee shall notify the Tender Agent and the Remarketing Agent by telephone, telegram, telex or other similar communication of the aggregate principal amount of Series 1996 Bonds to be tendered for purchase on the mandatory tender date.

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(ii) The proceeds of the sale of the Series 1996 Bonds which have been purchased by the Liquidity Provider pursuant to the Liquidity Facility or other proceeds received under or pursuant to a Liquidity Facility;

(iii) Moneys paid by the Authority for such purpose that are Eligible Funds; and

(iv) Other moneys paid by the Authority for such purpose.

(d) **Registration and Delivery of Tendered or Purchased Series 1996 Bonds.** (i) Subject to the requirements of clauses (ii) and (iii) immediately below, on the Purchase Date, the Bond Registrar shall register and deliver (or hold) all Series 1996 Bonds purchased on any Purchase Date as follows:

(1) Series 1996 Bonds purchased or remarketed by the Remarketing Agent shall be registered in accordance with the instructions of the Remarketing Agent and made available for delivery to the Remarketing Agent; and

(2) Series 1996 Bonds purchased with funds made available under or pursuant to the Liquidity Facility shall be registered in the name of the Liquidity Provider or its nominee and shall be delivered to or to the order of the Liquidity Provider in accordance with the provisions of the Liquidity Facility. While so registered, such Series 1996 Bonds shall constitute Provider Bonds.

(ii) While the DTC Book-Entry Only System is in effect for the Series 1996 Bonds, the Trustee shall deliver Series 1996 Bonds purchased or remarketed by the Remarketing Agent by transfer of beneficial ownership of such Series 1996 Bonds on the registration books of DTC or to or upon the order of the Remarketing Agent

(iii) While the DTC Book-Entry Only System is in effect for the Series 1996 Bonds, the Trustee shall identify Series 1996 Bonds purchased with funds made available under or pursuant to the Liquidity Facility on its registration books as Provider Bonds. The Trustee shall withdraw Provider Bonds from the DTC Book-Entry Only System and shall prepare and authenticate physical Series 1996 Bonds representing such Provider Bonds. While the DTC Book-Entry Only System is in effect for the Series 1996 Bonds, in the event that Provider Bonds are subsequently remarketed pursuant to the terms of this Article III and the Liquidity Facility, the Trustee shall take such action as shall be necessary to reinstate the DTC Book-Entry Only System for such Series 1996 Bonds and shall transfer beneficial ownership thereof on the books of DTC to or upon the order of the Remarketing Agent.

(e) **Delivery of Series 1996 Bonds; Effect of Failure to Surrender Series 1996 Bonds.**

(i) All Series 1996 Bonds to be purchased on any date shall be required to be delivered to the designated corporate trust office of the Tender Agent at or before 11:30 a.m., Eastern time, on the Purchase Date, except that Series 1996 Bonds bearing interest at Semiannual or Extended Rates being tendered for purchase at the election of the

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Owner pursuant to Section 3.07 shall be delivered to the designated corporate trust office of the Tender Agent along with the notice of tender.

(ii) If the Owner of any Series 1996 Bond (or portion thereof) that is subject to purchase pursuant to this Article III fails to surrender such Series 1996 Bond to the Tender Agent for purchase on the Purchase Date, and if the Trustee is in receipt of the Purchase Price therefor, such Series 1996 Bond (or portion thereof) shall nevertheless be deemed purchased on the Purchase Date and ownership of such Series 1996 Bond (or portion thereof) shall be transferred to the purchaser thereof as provided in subsection (d) of this Section 3.10. Any Owner who fails to deliver a Series 1996 Bond for purchase as required above shall have no further rights thereunder except the right to receive the Purchase Price thereof upon presentation and surrender of said Series 1996 Bond to the Tender Agent. The Tender Agent shall promptly notify the Trustee of any such failure to deliver a Series 1996 Bond to the Tender Agent, and the Trustee shall be entitled to conclusively rely on such notification.

(f) **Investment of Funds.** All money held by the Trustee for the payment of the Purchase Price of Series 1996 Bonds from whatever source derived, including remarketing proceeds and draws upon the Liquidity Facility, shall be held in a separate segregated account and shall be held uninvested or invested at the written direction of the Authority in Government Obligations with overnight maturities.

(g) **Exception for Bonds Owned by Authority.** Notwithstanding anything in this Agreement to the contrary, the Initial Liquidity Provider shall not be required to purchase Series 1996 Bonds subject to optional or mandatory tender for purchase under this Indenture that are beneficially held (or held in certificated form) by or on behalf of the Authority or any affiliate of the Authority.

**SECTION 3.11. SERIES 1996 BONDS PURCHASED UNDER LIQUIDITY FACILITY.** In the event that any Series 1996 Bonds are Provider Bonds, the Remarketing Agent shall continue to offer for sale and use its best efforts to sell such Series 1996 Bonds at the Purchase Price. The Tender Agent shall deliver such Series 1996 Bonds to the Liquidity Provider or its designee which shall hold the same pending such remarketing. While the Liquidity Facility is effective, Series 1996 Bonds purchased with funds made available under the Liquidity Facility shall not be delivered upon remarketing unless the Liquidity Facility is reinstated for the principal amount of the outstanding Series 1996 Bonds and interest thereon in accordance with its terms and the Remarketing Agent, the Bond Registrar, the Tender Agent, any designee of the Liquidity Provider then holding Provider Bonds and the Trustee have been advised in writing by the Liquidity Provider that it has elected to reinstate the Liquidity Facility in full.

**SECTION 3.12. MANDATORY TENDERS UPON CONVERSION TO FIXED RATE.** (a) **Purchase Date.** In the case of any conversion from a Variable Rate Period to the Fixed Rate Period, the Series 1996 Bonds to be converted are subject to mandatory tender for purchase on the Conversion Date at the Purchase Price.

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Series 1996 Bonds as agent and bailee of and in escrow for the benefit of, the Person or entity which shall have so delivered such moneys until the Series 1996 Bonds purchased with such moneys shall have been delivered to or for the account of such Person or entity; and

(b) to hold all moneys delivered to it hereunder by or on behalf of the Authority for the purchase of Series 1996 Bonds as agent and bailee of, and in escrow for the benefit of, the Owners who shall deliver Series 1996 Bonds to it for purchase until the Series 1996 Bonds purchased with such moneys shall have delivered to or for the account of the Authority.

**SECTION 3.16. SPECIAL PROVISIONS REGARDING PROVIDER BONDS.** (a) Notwithstanding anything in this Indenture to the contrary, at any time that there shall be Provider Bonds Outstanding, (1) all such Provider Bonds shall be remarketed before any other Series 1996 Bonds are remarketed; (2) the Series 1996 Bonds shall not be converted to the Fixed Rate unless the Provider Bonds are converted simultaneously to the Fixed Rate; and (3) all such Provider Bonds shall be redeemed before any other Series 1996 Bonds are redeemed.

(b) It is understood that the Initial Liquidity Provider shall not release any Provider Bonds to the Remarketing Agent unless it is concurrently paid the principal amount of such Provider Bonds plus all interest accrued thereon at the Corporation Rate, plus any unpaid fees and expenses.

(c) Notwithstanding anything in Section 2.06 or elsewhere in this Indenture to the contrary, Provider Bonds shall bear interest at the Corporation Rate, unless the Initial Liquidity Provider shall have provided the Authority and the Trustee with written notice that an Event of Default under the Initial Liquidity Facility shall have occurred and shall then be continuing, in which event, Provider Bonds shall bear interest at the Default Rate for so long as such Event of Default shall continue. The Trustee shall be entitled to rely fully upon a certificate from the Initial Liquidity Provider as to the continuance of such Event of Default. All interest on Provider Bonds shall be computed on the basis of a year of 365 or 366 day year, as appropriate, and shall be payable on the same Interest Payment Dates as shall apply to Series 1996 Bonds that bear interest at the Weekly Rate.

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(b) **Notice to Owners.** Any notice of a conversion given to Bondholders pursuant to Section 2.06(o) shall, in addition to the requirements of such Section, specify that the Series 1996 Bonds to be converted will be subject to mandatory tender for purchase on the Conversion Date and the time at which Series 1996 Bonds are to be tendered for purchase.

(c) **Remarketing.** At or before 4:00 p.m., Eastern time, on the fifteenth calendar day (or, if such day is not a Business Day, on the next succeeding Business Day) preceding the conversion to a Fixed Rate Period, the Tender Agent shall notify the Trustee, the Credit Provider, the Liquidity Provider and the Remarketing Agent, by telephone, telegram, telex, or other similar communication, of the aggregate principal amount of Series 1996 Bonds to be tendered for purchase on the Conversion Date or the Purchase Date. The Remarketing Agent shall offer for sale and use its best efforts to find purchasers for the Series 1996 Bonds to be tendered.

**SECTION 3.13. INSUFFICIENT FUNDS FOR PURCHASES.** If the moneys available for purchase of Series 1996 Bonds pursuant to this Article are inadequate for the purchase of all Series 1996 Bonds which are tendered on any Purchase Date, all Series 1996 Bonds subject to such purchase shall continue to bear interest at the same rate as in effect on the day prior to the Purchase Date to the date on which the earliest of the following occurs:

(i) The Fixed Rate Conversion Date for the Series 1996 Bonds;

(ii) The date on which any default by the Liquidity Provider under the terms of the Liquidity Facility has been cured; or

(iii) The fifth day after the date on which an Alternate Liquidity Facility meeting the requirements of Section 3.06 becomes effective.

If the preceding paragraph becomes applicable, (i) the Tender Agent shall immediately (but no later than the end of the next succeeding Business Day) return all tendered Series 1996 Bonds to the Owners thereof and notify all Owners of Series 1996 Bonds in writing of the interest rate to be effective pursuant to the preceding paragraph and (ii) the Trustee shall return all moneys received for the purchase of such Series 1996 Bonds to the Persons who provided such moneys.

**SECTION 3.14. BOOK-ENTRY TENDERS.** Notwithstanding any other provision of this Article III to the contrary, all tenders for purchase during any period in which the Series 1996 Bonds are registered in the name of Cede & Co. (or the nominee of any successor securities depository) shall be subject to the terms and conditions set forth in the Representation Letter and any notes and regulations promulgated by DTC.

**SECTION 3.15. DUTIES OF TRUSTEE WITH RESPECT TO PURCHASE OF SERIES 1996 BONDS.** The Trustee agrees, with respect to any optional or mandatory tender of the Series 1996 Bonds:

(a) to hold all moneys, other than moneys delivered to it by or on behalf of the Authority for the purchase of Series 1996 Bonds, delivered to it hereunder for the purchase of

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## ARTICLE IV

### CONSTRUCTION FUND

**SECTION 4.01. CONSTRUCTION FUND.** A special fund is hereby created and designated "Dade County Expressway Authority Construction Fund" (herein sometimes called the "Construction Fund") which shall be held by the Trustee and to the credit of which there shall be deposited the amounts described in Sections 2.07 and 2.08. At the option of the Authority, there may also be deposited with the Trustee for the credit of the Construction Fund, for such purposes as described in a resolution of the Authority authorizing such deposit, any moneys received by the Authority from any source, unless such moneys are required by this Indenture to be otherwise applied.

The moneys in the Construction Fund derived from the proceeds of Bonds shall be held in trust in the custody of the Trustee and applied to the payment of the Cost of a Project in accordance with this Article IV, Sections 2.07 and 2.08 and any Supplemental Indenture or to payment of such other Improvements or for such other purpose as specified in the resolution authorizing the deposit. Pending such application, such moneys shall be subject to a lien and charge in favor of the Owners of the Outstanding Bonds in the manner provided herein until paid out as herein provided. To the extent that no other funds under this Indenture shall be available to pay the principal of or interest then due on any Bonds, the Trustee shall apply amounts credited to the Construction Fund for such purpose, but only after it shall have been provided with an Opinion of Bond Counsel.

If the Authority shall issue Additional Bonds pursuant to Section 2.08, the Authority shall create and designate a special Account within the Construction Fund to which shall be deposited an amount of proceeds of such Additional Bonds as is specified in the Supplemental Indenture authorizing the issuance of such Additional Bonds. Additional special Accounts may be created by the Authority for deposit of funds, if any, from other sources, as provided in the resolution directing such deposit. Upon the issuance of any Series of Bonds, the proceeds of which will be used to pay Capitalized Interest, the Authority shall create a Subaccount in the Account in the Construction Fund for such Series to which the Capitalized Interest for such Series shall be deposited. The Trustee, upon written direction from the Authority, shall transfer amounts on deposit in said Subaccount to the appropriate Subaccount of the Interest Subaccount at the times and in the amounts directed by the Authority.

\*\*\* The Third Supplemental Indenture to Amended and Restated Trust Indenture amended this sentence to read as follows:

"If the Authority shall issue Additional Bonds pursuant to Section 2.08(g)(i), the Authority shall create and designate a special Account within the Construction Fund to which shall be deposited an amount of proceeds of such Additional Bonds as is specified in the Supplemental Indenture authorizing the issuance of such Additional Bonds."

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**SECTION 4.02. PAYMENTS FROM CONSTRUCTION FUND.** Payment of the Cost of a Project shall be made from the Construction Fund as herein provided. All such payments shall be subject to the provisions and restrictions set forth in this Article and the Authority covenants that it will not cause or permit to be paid from the Construction Fund any sums except in accordance with such provisions and restrictions. Moneys in the Construction Fund shall be disbursed by the Trustee, upon the filing with the Trustee by the Authority of a requisition for such disbursement in the form of Exhibit D hereto, signed by an Authorized Officer and by the Consulting Engineer. Upon receipt of each requisition prepared in accordance herewith, the Trustee shall promptly issue its check or make other arrangements to fund the disbursements as directed in the requisition from amounts on deposit in the Construction Fund in an amount equal to the amount to be paid as set forth in such requisition and to promptly pay the same to the party specified in such requisition.

**SECTION 4.03. COST OF A PROJECT.** For the purposes of this Article IV, the Cost of a Project shall include, without limitation, the following:

- (a) obligations incurred for labor, materials, machinery and equipment in connection with the construction of enlargements, improvements, modifications and extensions, and for the restoration or relocation of property damaged or destroyed in connection with same and for the demolition and disposal of structures and all other obligations incurred to contractors, suppliers, materialmen, and laborers that are necessary or desirable in connection with a Project;
- (b) interest accruing upon the Bonds prior to the commencement of and during construction or for any additional period if so provided, subject to any limitation, in any Series relating to such Bonds;
- (c) the cost of acquiring by purchase, if such purchase shall be deemed expedient, and the amount of any award or final judgment in, or any settlement or compromise of, any proceeding to acquire by condemnation, such property, lands, rights of way, franchises, easements and other interests in lands constituting a part of, or as may be deemed necessary or convenient for the acquisition or construction of, a Project; the cost of options and partial payments thereon, the cost of filling, draining, or improving any lands so acquired, and the amount of any damages incident to or consequent upon the acquisition or construction of a Project;
- (d) expenses of administration properly chargeable to a Project including legal expenses of consultants, financing charges, Trustee fees, bond counsel fees and expenses, the cost of preparing and issuing Bonds, the cost and charges of Credit Facilities and Liquidity Facilities, taxes or other municipal or governmental charges lawfully levied or assessed during construction upon a Project or any property acquired therefor, and premiums on insurance (if any) in connection with a Project during construction;
- (e) fees and expenses of architects, engineers, surveyors, construction supervisors and similar professionals for making studies (including analyses of transportation alternatives, planning and environmental impact), surveys and estimates of

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## ARTICLE V

### REVENUE AND FUNDS

**SECTION 5.01. COVENANTS AS TO TOLLS, ETC.** The Authority covenants:

- (a) that it will continue in effect the present schedule of Tolls for traffic using the System until such schedule shall be increased, decreased, or otherwise changed, revised or reconfigured as hereinafter provided;
- (b) that it will maintain (x) any recurring revenue stream pledged pursuant to clause (d) of the Granting Clauses of this Indenture and any Supplemental Indenture as part of the Trust Estate with respect to all Bonds or a particular Series of Bonds and (y) the Tolls for traffic using the System, in each case, at such lawful levels, as shall, in the opinion of the Consulting Engineer from time to time, result in producing Revenues sufficient in each Fiscal Year to provide an amount of Net Revenues in each Fiscal Year equal to not less than the greater of (i) one hundred twenty per centum (120%) of the Principal and Interest Requirements for such Fiscal Year on account of all Bonds then Outstanding and (ii) one hundred percent (100%) of the sum in such Fiscal Year of (A) any deficiency in the Debt Service Reserve Fund Requirement applicable to all Bonds then Outstanding and any amount scheduled to become due and payable to a Reserve Facility Provider in such Fiscal Year as a result of a draw or claim upon a Reserve Facility issued by such Reserve Facility Provider, (B) the Principal and Interest Requirements for such Fiscal Year on account of all Bonds Outstanding, (C) the deposits to the Renewal and Replacement Account for such Fiscal Year required by the provisions of Section 5.06(c), and (D) the amount required to pay any current or past due Annual Repayment Requirements due the Department under Section 5.12. Notwithstanding the foregoing, Net Revenues in each such Fiscal Year, without regard to any amounts transferred or to be transferred from the Rate Stabilization Account to the Revenue Fund, shall be equal to not less than one hundred per centum (100%) of the Principal and Interest Requirements for such Fiscal Year on account of all Bonds then Outstanding.
- (c) that on or before January 1 and July 1 of each Fiscal Year, commencing with the Fiscal Year ending June 30, 1998, it will review its financial condition and estimate and determine whether Net Revenues for such year are reasonably expected to be sufficient to enable the Authority to comply with subsection (b) above and file with the Trustee a copy of its resolution making such determination ("Determination"). If the Determination evidences the Authority's determination that Net Revenues are or are anticipated to be inadequate to comply with subsection (b) above, the Authority will forthwith request the Consulting Engineer to make its recommendations to the Authority, in writing, with a copy to the Trustee, as to a revision of the schedule of Tolls, rates, fees, rentals and other charges and any changes in methods of operation to provide sufficient Net Revenues to enable the Authority to comply with subsection (b) above.

Anything in this Indenture to the contrary notwithstanding, if the Authority shall comply with all recommendations of the Consulting Engineer on or before the expiration

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cost and of revenue and for preparing plans and supervising construction, as well as for the performance of all other duties set forth herein in relation to the construction of a Project or the issuance of Bonds therefor;

(f) all items of cost for which the Authority is permitted to expend proceeds of indebtedness under the Act, including other items of expense not elsewhere in this Section specified, incident to the acquisition or construction and equipment of a Project and the placing of any improvements in operation and to the acquisition of real estate, franchises and rights-of-way therefor, including abstracts of title and title insurance;

(g) any amounts advanced by any agency of the State or federal government for any of the foregoing purposes and any obligation or expenses heretofore or hereafter incurred by the Authority for any of the foregoing purposes, including the cost of materials, supplies or equipment furnished by the Authority in connection with the construction of a Project and paid for by the Authority out of funds other than moneys in the Construction Fund, and further including any bond anticipation notes issued by the Authority in the future to pay all or any part of the cost of a Project together with interest on any such bond anticipation notes; and

(h) the cost of any other Improvements to a Project as may be approved by a Supplemental Indenture.

For purposes of this Article IV, the Cost of a Project shall also include reimbursement to the Authority for any expenditures of the Authority that otherwise would constitute a Cost of a Project.

**SECTION 4.04. MODIFICATIONS AND AMENDMENTS TO PROJECT.** The Authority may, in its sole discretion, modify or amend any Project to include such improvements as it deems appropriate.

**SECTION 4.05. DISPOSITION OF SUMS IN THE CONSTRUCTION FUND.** When the construction of any Project shall have been completed, which fact shall be evidenced by a certificate stating the date of such completion, signed and approved by the Consulting Engineer, the balance in the Construction Fund relating to that Project not reserved for the payment of any remaining part of the Cost of such Project, or not otherwise required to be applied in any specified manner by any Supplemental Indenture relating to Bonds issued to finance that Project, shall be transferred by the Trustee, upon the written direction of the Authority, in the following order of priority: first, to the credit of the Sinking Fund to the extent of any deficiency therein, second, to the redemption of Bonds, to the extent provided for in a Supplemental Indenture authorizing the issuance of such Bonds and third, to the General Account to be applied as provided in Section 5.12, provided that prior to such transfer the Authority first obtains an Opinion of Bond Counsel.

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of eight months from the date of filing the Determination with the Trustee, the failure to meet the requirements of said subsection (b) in any Fiscal Year shall not, in and of itself, constitute an Event of Default.

(d) Notwithstanding anything in this Indenture to the contrary, (i) the Authority may remove Tolls when necessary for public safety or otherwise in an emergency situation and (ii) the Authority may relocate Toll collection facilities and may replace two-way Tolls with one-way Tolls so long as it remains in compliance with the provisions of this Indenture, including particularly this Section 5.01.

Notwithstanding any of the foregoing provisions of this Section 5.01, agreements and contracts for the operation and maintenance of the System in effect on the date of this Indenture shall not be subject to revisions except in accordance with their terms, and the Authority may enter into new agreements or contracts for the operation and maintenance of the System on such terms and for such periods of time as it shall determine to be proper.

The covenant set forth in subsection (b) above shall not be applicable to any principal and interest requirement attributable to any notes issued in anticipation of Bonds to be issued under this Indenture unless such notes are issued as Bonds hereunder.

The Authority further covenants that upon its making any request to the Consulting Engineer for its recommendations as to a revision of the schedules of Tolls or upon the receipt of any such recommendations from the Consulting Engineer 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.

**SECTION 5.02. 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. The Authority further covenants that no free vehicular passage will be permitted over the tolled sections of the System except to vehicles of members, employees and contractors of the Authority, the Department, any fire or police department or other governmental entity whose duties affect public safety, but in each case only on official acts of business, and except as may otherwise be required Section 338.155, Florida Statutes, as amended, any successor provision thereto and any by any other applicable law.

**SECTION 5.03. ANNUAL INSPECTION OF SYSTEM.** The Authority covenants that, commencing with the Fiscal Year ending June 30, 1998, it will cause the Consulting Engineer employed by it under the provisions of Section 7.05, among such other duties as may be imposed upon them by the Authority or by this Indenture, to make an inspection of the System at least once in each year and, on or before the 1st day of January in each Fiscal

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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 the proper maintenance, repair and operation of the System during the ensuing Fiscal Year. In lieu of performing such inspection with respect to the entire System and in the preparation of such report, with the prior written approval of an Authorized Officer, the Consulting Engineer may rely on inspections with respect to portions of the System conducted by or for the Department and on reports prepared by or for the Department.

Promptly after the receipt of such reports by the Authority, copies thereof shall 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 purposes.

The Authority further covenants that, if any such report of the Consulting Engineer 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 Engineer.

**SECTION 5.04. ANNUAL BUDGET.** The Authority covenants, that commencing in the Fiscal Year ending on June 30, 1998, on or before the 20th day of April in each Fiscal Year it will prepare a preliminary budget for the ensuing Fiscal Year of (i) Operation and Maintenance 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. On or before the 20th day of April in such Fiscal Year copies of each such preliminary budget shall be filed with the Trustee and mailed by the Authority to the Consulting Engineer. The Authority further covenants that it will comply with any reasonable request of the Trustee or the Consulting Engineer as to the classifications in which such budget shall be prepared, particularly with respect to the divisions into which such budget shall be divided.

The Authority further covenants that on or before the 15th day of June in such Fiscal Year it will finally adopt the budget for the ensuing Fiscal Year of (i) Operation and Maintenance 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 general purposes for which moneys held for the credit of the Renewal and Replacement Fund shall be appropriated. On or before the 20th 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 Engineer.

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, or if there is none so approved, the Annual 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 this Article.

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 this Article. At least thirty (30) days prior to the adoption of any amended or supplemental Annual Budget, the

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The moneys in the Revenue Fund shall be held by the Trustee in trust and applied upon the direction or order of an Authorized Officer to the payment of Operation and Maintenance Expenses, except the withdrawals which the Trustee is authorized to make as provided in this Article V, and, pending such application, such moneys shall be subject to a lien and charge in favor of the Owners of the Bonds issued and Outstanding hereunder and for the further security of such Owners until paid out or withdrawn as herein provided.

**SECTION 5.06. SINKING FUND; ADDITIONAL FUNDS AND ACCOUNTS.** A special fund is hereby created and designated "Dade County Expressway Authority Sinking Fund", herein sometimes called the "Sinking Fund". Three other special funds are hereby created and designated, respectively, "Dade County Expressway Authority Debt Service Reserve Fund" (herein sometimes called the "Debt Service Reserve Fund"), "Dade County Expressway Authority Renewal and Replacement Fund" (herein sometimes called the "Renewal and Replacement Fund") and "Dade County Expressway Authority General Fund" (herein sometimes called the "General Fund"). The General Fund shall consist of the General Account, the Rate Stabilization Account and the Authority Account.

The moneys in the Sinking Fund, the Debt Service Reserve Fund, the Renewal and Replacement Fund and the General Fund shall be held by the Trustee in trust in each case and applied as hereinafter provided with respect to each such Fund, Account and Subaccount therein and, pending such application, shall be subject to a lien and charge in favor of the Owners of the Bonds issued and Outstanding under this Indenture and for the further security of such Owners until paid out or transferred as herein provided.

It shall be the duty of the Trustee, on or before the 25th day of each month and/or on such other Deposit Day as may be required pursuant to a Supplemental Indenture, to withdraw from the Revenue Fund and transfer an amount equal to the amount of all moneys held for the credit of the Revenue Fund on the last day of the preceding month less an amount (to be held as a reserve for Operation and Maintenance Expenses) not in excess of eight and thirty-three hundredths per centum (8.33%) of the amount shown by the Annual Budget to be necessary for Operation and Maintenance Expenses for the current Fiscal Year (or any percentage less than eight and thirty-three hundredths per centum (8.33%) as may be determined by the Authority by resolution from time to time filed with the Trustee) to the credit of the following Funds or Accounts in the following order:

- (a) first, deposit to the credit of the Sinking Fund, such amount (or the entire sum so withdrawn if less than the required amount) as shall equal the sum of
  - (i) an amount that, together with an equal amount assumed to be deposited on one Deposit Day of each succeeding calendar month prior to the next Interest Payment Date, shall equal (as shall be estimated to equal during a Daily Rate Period or Weekly rate Period) the Interest Requirements of the Bonds payable on the next Interest Payment Date, and
  - (ii) an amount that, together with an equal amount assumed to be deposited on one Deposit Day of each succeeding calendar month prior to the

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Authority shall cause a notice of the proposed adoption of such amended or supplemental Annual Budget to be filed with the Trustee and to be mailed to the Consulting Engineer and all Bondholders who shall have filed their names and addresses with the Secretary of the Authority for such purpose. Such notice shall briefly set forth the nature of the proposed amended or supplemental Annual Budget and shall state that copies thereof are on file at the office of the Authority for inspection by all Bondholders. Copies of any such amended or supplemental Annual Budget shall be filed with the Trustee and mailed by the Authority to the Consulting Engineer 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 the Operation and Maintenance 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 Operation and Maintenance Expenses in the Annual Budget, except amounts which may be paid from the Renewal and Replacement Fund or the General Fund. Nothing contained in this Section shall limit the amount the Authority may expend for Operation and Maintenance Expenses in any Fiscal Year provided any amounts expended therefor in excess of the amounts provided for Operation and Maintenance 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.

In the event that the Authority changes its Fiscal Year, the time periods and dates specified in this Section shall be deemed to be adjusted to accommodate such change in Fiscal Year.

**SECTION 5.05. REVENUE FUND.** A special fund is hereby created and designated "Dade County Expressway Authority Revenue Fund" (herein sometimes called the "Revenue Fund"). The Authority covenants that it shall, to the extent practicable, deposit the portion of the Revenues comprised of cash Toll receipts daily into one or more special trust funds to be designated the "Dade County Expressway System Toll Collection Account" (the "Collection Account"). The Collection Account shall be established pursuant to a deposit trust agreement and maintained in one or more banks or trust companies designated by the Authority and eligible under the laws of the State to receive deposits of public funds. Expenses of administration incurred by the banks or trust companies maintaining the Collection Account shall be offset in part from time to time from investment earnings on amounts credited to the Collection Account. The Authority shall transfer or cause to be transferred all amounts credited to the Collection Account weekly, to the extent practicable, but not less often than once every two weeks, to the Trustee for deposit to the credit of the Revenue Fund. The Authority covenants further that, except as herein provided with respect to investment earnings on the Sinking Fund and as otherwise herein provided, all Revenues collected by the Authority other than cash Toll receipts will be deposited daily, to the extent practicable, but not less often than once every two weeks, with the Trustee for deposit to the credit of the Revenue Fund. The lien of this Indenture upon moneys and revenues that constitute part of the Trust Estate shall attach as soon as such moneys and revenues are collected by or on behalf of the Authority.

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next principal payment date (including any date established for the payment of Amortization Requirements) for the Bonds occurring within one year of the date of such deposit, shall equal the Principal Requirements of the Bonds payable on such next principal payment date (or date established for the payment of Amortization Requirements);

provided that in making such transfer to the Trustee, the Trustee shall take into account any accrued interest deposited from the proceeds of a Series of Bonds and any amounts specified in a certificate of an Authorized Officer delivered to the Trustee prior to such Deposit Day as credited to the Sinking Fund or a special Account in the Construction Fund, dedicated to pay Capitalized Interest on Bonds and anticipated to be available to pay interest on Bonds on the next Interest Payment Date; provided further, that, in making such transfer, the Trustee shall take into account any investment income realized by the Authority from the investment of moneys to the credit of the Sinking Fund and the Debt Service Reserve Fund (or any other excess in the Debt Service Reserve Fund transferred or then transferable to the Sinking Fund pursuant to Section 5.08(b)) since the Deposit Day next preceding the Interest Payment Date last occurring prior to such Deposit Day; and provided further that, in the event the Authority has entered into any Hedge Agreement pursuant to the provisions of this Indenture, amounts shall be deposited in the Sinking Fund at such other times and/or in such other amounts or transferred to such other parties as necessary to pay the Hedge Obligations due under the Hedge Agreement on a parity with interest due on the Bonds, all in the manner described in the Supplemental Indenture authorizing the issuance of any Series of Bonds where Hedge Obligations may become payable under a Hedge Agreement. Notwithstanding the foregoing, the Authority shall remain obligated to cure any deficiency in the amount so deposited for the payment of interest on Variable Rate Bonds on or prior to the applicable Interest Payment Date, and the Trustee shall transfer from the Revenue Fund, to the extent that moneys are available therein the amount necessary to cure any such deficiency on or prior to such Interest Payment Date.

(b) second, to the credit of the Debt Service Reserve Fund, such amount, if any, remaining after the deposits under clause (a) above (or the entire balance if less than the required amount) as shall equal the Debt Service Reserve Fund Deposit Requirement;

(c) third, deposit to the credit of the Renewal and Replacement Fund an amount equal to such amount, if any, as may be necessary to make the total amount to the credit of such Fund equal to the total amount budgeted for expenditure in the then current Fiscal Year by the Authority in its Annual Budget; and

(d) finally, deposit to the credit of the General Account, the balance, if any, remaining after making the deposits under clauses (a), (b) and (c) above.

The payments and deposits required pursuant to this Section shall be cumulative and the amount of any deficiency in any month shall be added to the amount otherwise required to be paid or deposited in each month thereafter until such time as such deficiency shall have been made up.

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Notwithstanding the foregoing provisions of clause (a), if there shall be to the credit of the Sinking Fund on a Deposit Day the amount required to be on deposit to the credit of such Fund on the next Interest Payment Date and the next principal payment date, no further deposit into such Fund on account of the requirements of said clause shall then be required.

As provided in this Indenture with respect to the Series 1996 Bonds and as provided in a Supplemental Indenture authorizing any other Series of Bonds, if the interest on such Bonds is payable otherwise than semiannually on January 1 and July 1 of each year or if the principal or Amortization Requirements are payable otherwise than on January 1 or July 1, then the Authority shall provide in such Supplemental Indenture for such deposits to the Funds mentioned in clauses (a) and (b) above as shall be necessary to accrue evenly and to ensure the sufficiency of the required deposits to make timely payment of the debt service on such Bonds.

**SECTION 5.07. APPLICATION OF MONEYS IN SINKING FUND.** (a) The Trustee shall, on or before the Business Day immediately preceding each Interest Payment Date, withdraw from the Sinking Fund and transfer to the Paying Agent, and the Paying Agent shall (1) remit by mail to each Owner of Bonds the amounts required for paying the interest on such Bonds as such interest becomes due and payable and (2) set aside or deposit in trust with the Paying Agent, the amounts required for paying the principal of such Bonds as such principal becomes due and payable.

(b) Except in the case of any Bonds that constitute Variable Rate Bonds or Put Bonds, the Authority may direct the Trustee to purchase Bonds identified by the Authority prior to maturity at the most advantageous price obtainable with reasonable diligence by the Authority, such price not to exceed the principal of such Bonds. The Trustee shall pay the purchase price and the interest accrued on such Bonds to the date of settlement therefor from the Sinking Fund; provided, however, that money in the Sinking Fund may be used by the Trustee to purchase Bonds for cancellation only to the extent said moneys are in excess of the amount required for payment of the Bonds theretofore matured and the total amount of interest and principal on the Bonds scheduled to become due on the next succeeding Interest Payment Date or Principal Payment Date, respectively.

(c) In the case of Bonds secured by a Credit Facility or Liquidity Facility, amounts on deposit in the Sinking Fund may be applied as provided in the applicable Supplemental Indenture to reimburse the Credit Provider or Liquidity Provider for amounts drawn under such Credit Facility or Liquidity Facility to pay the principal or Purchase Price of and premium, if any, and interest on such Bonds, as appropriate.

**SECTION 5.08. USE OF MONEYS IN DEBT SERVICE RESERVE FUND.** (a) Moneys held for the credit of the Debt Service Reserve Fund shall be transferred to the credit of the Sinking Fund and used for the purpose of paying the principal and interest of all Bonds whenever and to the extent that the moneys held for the credit of the Sinking Fund and available moneys held for the credit of the General Fund and the Renewal and Replacement Fund shall be insufficient for such purpose.

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If such notice indicates that the expiration date shall not be extended, the Authority shall deposit in the Debt Service Reserve Fund an amount sufficient to cause the cash or Investment Securities on deposit in the Debt Service Reserve Fund together with any other qualifying credit instruments, to equal the Debt Service Reserve Fund Requirement on all Outstanding Bonds, such deposit to be paid in equal installments on at least a semi-annual basis over the remaining term of the letter of credit, unless the Reserve Facility is replaced by a Reserve Facility meeting the requirements in any of subparagraphs (i) or (ii) above or in this subparagraph (iii). The letter of credit shall permit a draw in full not less than two weeks prior to the expiration or termination of such letter of credit if the letter of credit has not been replaced or renewed. The Trustee is directed to draw upon the letter of credit prior to its expiration or termination unless an acceptable replacement is in place or the Debt Service Reserve Fund is fully funded in its required amount.

(iv) The use of a Reserve Facility pursuant to this Section shall be subject to receipt of an opinion of counsel acceptable to the Credit Provider and in form and substance satisfactory to each as to the due authorization, execution, delivery and enforceability of such Reserve Facility in accordance with its terms, subject to applicable laws affecting creditors' rights, generally, and, in the event the issuer of such credit instrument is not a domestic entity, an opinion of foreign counsel in form and substance satisfactory to the Credit Provider. In addition, the use of an irrevocable letter of credit shall be subject to receipt of an opinion of counsel acceptable to the Credit Provider and in form and substance satisfactory to the Credit Provider to the effect that payments under such letter of credit would not constitute avoidable preferences under Section 547 of the U.S. Bankruptcy Code or similar state laws with avoidable preference provisions in the event of the filing of a petition for relief under the U.S. Bankruptcy Code or similar state laws by or against the Authority (or any other account party under such letter of credit).

(v) The obligation to reimburse a Reserve Facility Provider for any fees, expenses, claims or draws upon such Reserve Facility shall be subordinate to the payment of the principal and interest on the Bonds. Subject to the second succeeding sentence, the right of a Reserve Facility Provider to payment for or reimbursement of claims or draws on a Reserve Facility and its fees and expenses (including all Policy Costs in the case of the Initial Reserve Facility) shall be prior to cash replenishment of the Debt Service Reserve Fund. The Reserve Facility shall provide for a revolving feature under which the amount available thereunder will be reinstated to the extent of any reimbursement of draws or claims paid. If the revolving feature is suspended or terminated for any reason, the right of the Reserve Facility Provider to reimbursement will be further subordinated to cash replenishment of the Debt Service Reserve Fund to an amount equal to the difference between the full original amount available under the Reserve Facility and the amount then available for further draws or claims. If (A) the Reserve Facility Provider becomes insolvent, (B) the issuer of the Reserve Facility defaults in its payment obligations thereunder, (C) the claims-paying ability of the Reserve Facility Provider of an insurance policy or surety bond falls below a S&P "AAA" or a Moody's "Aaa", or (D) the rating of the Reserve Facility Provider of a letter of credit falls below a S&P "AA",

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If the amount transferred from the Debt Service Reserve Fund to the Sinking Fund pursuant to the preceding paragraph shall be less than the amount required to be transferred thereunder, any amount thereafter deposited to the credit of the Debt Service Reserve Fund shall be immediately transferred to the Sinking Fund as and to the extent required to make up such deficiency.

(b) If on the Deposit Day immediately preceding each Interest Payment Date and/or principal payment date in each Fiscal Year the moneys held for the credit of the Debt Service Reserve Fund shall exceed an amount equal to the Debt Service Reserve Fund Requirement, the Trustee shall transfer such excess to the credit of the Sinking Fund.

(c) Whenever the amount on deposit in the Debt Service Reserve Fund is less than the Debt Service Reserve Fund Requirement, the Trustee shall notify the Authority of the amount of the deficiency. Upon such notification, the Trustee shall transfer from moneys held to the credit of the Revenue Fund on the Deposit Day in each month thereafter, to the credit of the Debt Service Reserve Fund an amount not less than Debt Service Reserve Fund Deposit Requirement until such deficiency is remedied.

(d) The Authority may satisfy the Debt Service Reserve Fund Requirement by the deposit of a Reserve Facility as set forth below, provided that the following provisions have been fulfilled.

(i) A surety bond or insurance policy issued to the Trustee by a company licensed to issue an insurance policy guaranteeing the timely payment of debt service on the Bonds (a "municipal bond insurer") may be deposited in the Debt Service Reserve Fund to meet the Debt Service Reserve Fund Requirement if the claims paying ability of the issuer thereof shall be rated "AAA" or "Aaa" by S&P or Moody's, respectively.

(ii) A surety bond or insurance policy issued to the Trustee by an entity other than a municipal bond insurer may be deposited in the Debt Service Reserve Fund to meet the Debt Service Reserve Fund Requirement if the form and substance of such instrument and the issuer thereof shall be approved by the Credit Provider.

(iii) An unconditional irrevocable letter of credit issued to the Trustee by a bank may be deposited in the Debt Service Reserve Fund to meet the Debt Service Reserve Fund Requirement if the issuer thereof is rated at least "AA" by S&P. The letter of credit shall be payable in one or more draws upon presentation by the beneficiary of a sight draft accompanied by its certificate that it then holds insufficient funds to make a required payment of principal of or interest on the Bonds. The draws shall be payable within two days of presentation of the sight draft. The letter of credit shall be for a term of not less than three years. The issuer of the letter of credit shall be required to notify the Authority and the Trustee, not later than 30 months prior to the stated expiration date of the letter of credit, as to whether such expiration date shall be extended, and if so, shall indicate the new expiration date.

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the obligation to reimburse such Reserve Facility Provider shall be subordinate to the cash replenishment of the Debt Service Reserve Fund.

(vi) If (A) the revolving reinstatement feature described in the preceding subparagraph is suspended or terminated, (B) the rating of the claims paying ability of the Reserve Facility Provider of the surety bond or insurance policy falls below a S&P "AAA" or a Moody's "Aaa", or (C) the rating of the rating of the Reserve Facility Provider of the letter of credit falls below a S&P "AA", the Authority shall either (D) deposit into the Debt Service Reserve Fund an amount sufficient to cause the cash or Investment Securities on deposit in the Debt Service Reserve Fund to equal the Debt Service Reserve Fund Requirement on all Outstanding Bonds, such amount to be paid over the ensuing five years in equal installments deposited at least semi-annually or (E) replace such instrument with a surety bond, insurance policy or letter of credit meeting the requirements in any of subparagraphs (i), (ii) or (iii) above within six months of such occurrence. In the event (F) the rating of the claims-paying ability of the Reserve Facility Provider of the surety bond or insurance policy falls below a S&P or Moody's "A", (G) the rating of the Reserve Facility Provider of the letter of credit falls below a S&P or Moody's "A", (H) the Reserve Facility Provider defaults in its payment obligations or (I) the Reserve Facility Provider becomes insolvent, the Authority shall either deposit into the Debt Service Reserve Fund an amount sufficient to cause the cash or Investment Securities on deposit in the Debt Service Reserve Fund to equal the Debt Service Reserve Fund Requirement on all Outstanding Bonds, such amount to be paid over the ensuing year in equal installments on at least a monthly basis or replace such instrument with a surety bond, insurance policy or letter of credit meeting the requirements in any of subparagraphs (i), (ii) or (iii) above within six months of such occurrence.

(vii) Where applicable, the amount available for draws or claims under the Reserve Facility may be reduced by the amount of cash or Investment Securities deposited in the Debt Service Reserve Fund pursuant to the last sentence of the preceding subparagraph (vi).

(viii) The Trustee shall ascertain the necessity for a claim or draw upon the Reserve Facility and shall provide notice to the Reserve Facility Provider in accordance with its terms not later than three days (or such longer period as may be necessary depending on the permitted time period for honoring a draw under the Reserve Facility) prior to each Interest Payment Date. In the case of the Initial Reserve Facility, such notice shall be provided at least two Business Days prior to each Interest Payment Date.

(ix) Cash on deposit in the Debt Service Reserve Fund shall be used (or Investment Securities purchased with such cash shall be liquidated and the proceeds applied as required) prior to any drawing on any Reserve Facility. If and to the extent that more than one Reserve Facility is deposited in the Debt Service Reserve Fund, drawings thereunder and repayments of costs associated therewith shall be made on a pro rata basis, calculated by reference to the maximum amounts available thereunder.

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(x) The Trustee shall have no responsibility to monitor the rating of any Reserve Facility Provider.

(xi) As security for the obligations of the Authority under the Series 1996 Debt Service Reserve Fund Policy Agreement, the Authority hereby grants to the Initial Reserve Facility Provider a lien on and security interest in the Net Revenues subordinate only to the funding requirements with respect to the Principal and Interest Requirements on Bonds established under this Indenture pursuant to Section 5.06(a). In the event that the Authority shall fail to repay any Policy Costs when due under the Series 1996 Debt Service Reserve Fund Policy Agreement, the Initial Reserve Facility Provider shall be entitled to exercise any and all remedies available at law, including but not limited to the right to bring an action against the Trustee or the Authority for specific performance, other than (i) acceleration of the maturity of the Bonds, or (ii) remedies which would adversely affect Bondholders.

**SECTION 5.09. USE OF MONEYS IN RENEWAL AND REPLACEMENT FUND.** Except as hereinafter provided in this Section, moneys held for the credit of the Renewal and Replacement Fund shall be disbursed only for the purpose of paying the cost of

(a) unusual or extraordinary maintenance or repairs, maintenance or repairs not recurring annually, and renewals and replacements, including major items of equipment,

(b) repairs or replacements resulting from an emergency caused by some extraordinary occurrence, so characterized by a certificate signed by an Authorized Officer, approved by the Consulting Engineer and filed with the Trustee stating that the moneys in the Revenue Fund and insurance proceeds, if any, available therefor are insufficient to meet such emergency, and

(c) paying all or any part of the cost of any System Improvements.

Notwithstanding the foregoing, so long as the Authority shall remain obligated to pay the Annual Repayment Requirements to the Department and whenever the Authority shall otherwise be legally or contractually obligated to pay any other moneys from the General Fund to the Department, the Authority may expend moneys credited to the Renewal and Replacement Fund pursuant to clause (c) of the preceding sentence only with the prior written approval of the Department.

Disbursements by the Trustee from the Renewal and Replacement Fund shall be made in accordance with the provisions of Section 4.02 for payments from the Construction Fund to the extent that such provisions may be applicable.

If at any time the moneys held for the credit of the General Fund and Sinking Fund shall be insufficient for the purpose of paying the principal of and interest on all the Bonds as such principal and interest become due and payable, then the Trustee shall transfer from any unencumbered moneys held for the credit of the Renewal and Replacement Fund to the credit of the Sinking Fund an amount sufficient to make up any such deficiency.

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The Authority covenants that it shall direct the Trustee to make the transfers described above in such a manner so that the Authority shall remain at all times in full compliance with the terms of the Transfer Agreement.

**SECTION 5.13. MONEYS SET ASIDE TO BE HELD IN TRUST.** All moneys that the Trustee shall have withdrawn from the Sinking Fund or shall have received from any other source and set aside, or deposited with the Bond Registrar or Paying Agents, for the purpose of paying any of the Bonds hereby secured at the maturity thereof shall be held in trust for the respective Owners of such Bonds. But any moneys that shall be so set aside or deposited and that shall remain unclaimed by the Owners of such Bonds for the period of two (2) years after the date on which such Bonds shall have become due and payable shall upon request in writing be paid to the Authority or to such officer, board or body as may then be entitled by law to receive the same, and thereafter the Owners of such Bonds shall look only to the Authority or to such officer, board or body, as the case may be, for payment and then only to the extent of the amounts so received without any interest thereon, and the Trustee, the Bond Registrar, the Trustee and the Paying Agent shall have no responsibility with respect to such moneys.

**SECTION 5.14. CANCELLATION OF BONDS.** Except as otherwise provided herein or in a Supplemental Indenture, all Bonds paid or purchased, either at or before maturity, shall be canceled upon the payment or purchase of such Bonds and shall be delivered to the Bond Registrar when such payment or purchase is made. All Bonds canceled under any of the provisions of this Indenture shall be destroyed by the Bond Registrar, and the Bond Registrar shall execute a certificate of destruction in triplicate describing the Bonds so destroyed. One executed certificate of destruction shall be filed with the Secretary of the Authority and one with the Paying Agent and the other executed certificate shall be retained by the Bond Registrar.

**SECTION 5.15. SEPARATE ACCOUNTS.** The moneys required to be accounted for in each of the Funds, Accounts and Subaccounts established herein may be deposited in a single bank account, and funds allocated to the various Funds, Accounts and Subaccounts established herein may be invested in a common investment pool, provided that adequate accounting records are maintained to reflect and control the restricted allocation of the moneys on deposit therein and such investments for the various purposes of such Funds, Accounts and Subaccounts as herein provided.

The designation and establishment of the various Funds and Accounts in and by this Indenture shall not be construed to require the establishment of any completely independent, self-balancing funds as such term is commonly defined and used in governmental accounting, but rather is intended solely to constitute an earmarking of certain revenue for certain purposes and to establish certain priorities for application of such revenue as herein provided.

The Trustee shall from time to time transfer any moneys from the Renewal and Replacement Fund to the credit of the Revenue Fund upon the receipt of a written statement of an Authorized Officer directing such transfer and certifying that the amount so to be transferred is no longer required for the purposes of the Renewal and Replacement Fund.

**SECTION 5.10. [RESERVED]**

**SECTION 5.11. [RESERVED]**

**SECTION 5.12. USE OF MONEYS IN GENERAL FUND.** At the written direction of the Authority, the Trustee shall apply, transfer or pay moneys held to the credit of the General Account as follows: (i) first, (a) to the payment of the scheduled debt service payments required to be made by the Authority to the Department under such State Infrastructure Bank Loan Agreements as may then be in effect between the Authority and the Department, and then, (b) if any portion of the then current Non-contingent Portion of Annual Repayment Requirements or any portion of the Non-contingent Portion of Annual Repayment Requirements from prior Fiscal Years remain unpaid, to pay to the Department to the extent moneys are available in the General Account \$2,000,000 per Fiscal Year (or the remaining balance if less than \$2,000,000) toward the unpaid portion of the Non-contingent Portion of Annual Repayment Requirements and the Non-contingent Portion of Annual Repayment Requirements from prior Fiscal Years that remains unpaid until the same has been paid in full; (ii) second, through the end of the Fiscal Year ending on June 30, 2001 to transfer to the Authority Account the next \$1,000,000 available in the General Account per Fiscal Year; (iii) third, if any portion of the Contingent Portion of Annual Repayment Requirements remains unpaid, to pay to the Department the unpaid portion of the Contingent Portion of Annual Repayment Requirements; (iv) fourth, to transfer to the Rate Stabilization Account such amount as may be set forth in a certificate delivered by an Authorized Officer to the Trustee from time to time, and (v) fifth, to transfer to the Authority Account the balance.

The Authority may apply or cause to be applied moneys held for the credit of the Rate Stabilization Account, upon the written direction of an Authorized Officer at such times and in such amounts as shall be set forth in such written direction, for transfer to the Revenue Fund. The Trustee shall also transfer moneys held for the credit of the Rate Stabilization Account to the Revenue Fund to the extent necessary to avoid a deficiency in the required deposits thereto and the required payments therefrom.

The Authority may apply or cause to be applied moneys credited to the Authority Account for any lawful purpose of the Authority, including, but not limited to, the payment of rebate, payments due to Credit Providers, Liquidity Providers and Reserve Facility Providers and Hedge Charges.

Notwithstanding the foregoing, if moneys held for the credit of the Sinking Fund shall be insufficient to pay the principal of and interest on all Bonds at the time such interest and principal income become due and payable, the Trustee shall transfer from any moneys held to the credit of the General Fund for deposit to the credit of the Sinking Fund an amount equal to such deficiency.

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## ARTICLE VI

### DEPOSITARIES OF MONEYS, SECURITY FOR DEPOSITS AND INVESTMENTS OF FUNDS

**SECTION 6.01. SECURITY FOR DEPOSITS.** All moneys received by or on behalf of the Authority, subject to the provisions of this Indenture, including all such moneys delivered to the Trustee, shall be held in accordance herewith by the Trustee, or at the written direction of an Authorized Officer, shall be deposited with a Depositary or Depositaries. All such moneys shall be held in trust, shall be applied only in accordance with the provisions of this Indenture and shall not be subject to lien or attachment by any creditor of the Authority or Trustee except as otherwise provided in this Indenture.

All moneys held by the Trustee or a Depositary hereunder in excess of the amount guaranteed by the Federal Deposit Insurance Corporation or other federal agency shall be continuously secured for the benefit of the Authority and the Owners of the Bonds in such manner as may then be provided by applicable State or federal laws or regulations regarding the security for, or granting a preference in the case of, the deposit of public funds; provided, however, that it shall not be necessary for the Paying Agent to give security for the deposits of any moneys with them for the payment of the principal of or the redemption premium or the interest on any Bonds issued hereunder or for the Authority to give security for any moneys which shall be represented by obligations purchased under the provisions of this Article as an investment of such money.

**SECTION 6.02. INVESTMENT OF MONEYS.** Moneys held for the credit of the Construction Fund, the Revenue Fund, the Sinking Fund, the Debt Service Reserve Fund, the Renewal and Replacement Fund, the General Fund and the Rebate Fund shall, as nearly as may be practicable, be continuously invested and reinvested by the Trustee, only upon written direction or telephonic direction promptly followed by written direction of an Authorized Officer to the Trustee, in Investment Securities which shall mature, or which shall be subject to redemption by the holder thereof at the option of such holder, not later than the respective dates when moneys held for the credit of said Funds and the Accounts and Subaccounts will be estimated by an Authorized Officer to be required for the purposes intended (which Investment Securities, in the case of the Debt Service Reserve Fund, shall not mature later than five years after the date of purchase). As to funds invested in Time Deposits, each such Time Deposit shall permit the moneys so placed to be available for use at the time provided above. Any and all such investments shall comply with any requirements set forth in any certificate or other instrument of the Authority with respect to preventing any Series of Bonds from being characterized as "arbitrage bonds" within the meaning of Section 148 of the Code or any successor provision thereto. The Trustee shall assume that any Investment Security in which the Authority has directed it to invest is a lawful investment for the Authority.

Investment Securities so purchased as an investment of moneys in any such Fund, Account or Subaccount shall be deemed at all times to be part of such Fund, Account or Subaccount. The interest accruing thereon and any gain realized from such investment shall be credited to, and any loss resulting from such investment shall be charged to, the respective Fund,

Account or Subaccount. An Authorized Officer may direct the Trustee to sell or present for payment or redemption any Investment Securities so acquired whenever it shall be necessary to do so in order to provide moneys to meet any payment from such Fund, Account or Subaccount. Neither the Authority, the Trustee nor any agent thereof shall be liable, or responsible, for any loss resulting from any such investment. The Trustee shall value Investment Securities credited to the Funds, Accounts and Subaccounts upon request of the Authority or the Credit Provider, but, in any event, not less often than annually, at the market value thereof, exclusive of accrued interest.

Any and all income received from the investment of moneys in the Revenue Fund and the General Fund shall be deposited upon receipt thereof in the Revenue Fund.

Any and all income received from the investment of moneys in the Accounts and Subaccounts in the Sinking Fund shall be retained in the Accounts and Subaccounts in which they are earned.

Any and all income earned on investments in the Debt Service Reserve Fund shall be transferred to the Sinking Fund; provided, however, such income in the Debt Service Reserve Fund shall be retained in Debt Service Reserve Fund in the event that amounts on deposit therein are less than the related Debt Service Reserve Fund Requirement.

Any and all income received from the investment of moneys in the Construction Fund shall remain therein until completion of the Project for which such moneys were deposited in the Construction Fund and, to the extent any excess income remains at the end of the Project, same shall be applied in the manner set forth in Section 4.05.

Any income received from the investment of moneys in the Rebate Fund shall remain therein.

## ARTICLE VII

### PARTICULAR COVENANTS

**SECTION 7.01. PAYMENT OF PRINCIPAL, INTEREST AND PREMIUM; LIMITED OBLIGATIONS.** The Authority covenants that it will promptly pay the principal of and the interest on the Bonds, and any premium required for the retirement of said Bonds by purchase or redemption, at the places, on the dates and in the manner specified herein and in said Bonds.

Except as otherwise provided in this Indenture, the principal, interest and premium on the Bonds are payable solely from the Revenues which are hereby pledged to the payment thereof and the moneys on deposit from time to time in the Funds, Accounts and Subaccounts, in the manner and to the extent hereinabove particularly specified, and nothing in the Bonds or in this Indenture shall be construed as obligating the Authority to pay the principal, the interest and premium, if any, thereon except from the Revenues and the moneys on deposit from time to time in the Funds, Accounts and Subaccounts. The Authority has no taxing power.

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will pay or cause to be discharged, or will make adequate provision to satisfy and discharge, within sixty days after the same shall accrue, all lawful claims and demands against the Authority for labor, materials, supplies or other objects which, if unpaid, might by law become a lien upon the System or any part thereof or upon the Revenues; provided, however, that nothing contained in this Section 7.04 shall require the Authority to pay or cause to be discharged, or make provision for, any such lien or charge so long as the validity thereof shall be contested in good faith and by appropriate legal proceedings.

**SECTION 7.05. RETENTION OF CONSULTING ENGINEER AND ACCOUNTANTS; APPOINTMENT OF OFFICERS.** The Authority covenants that it will, for the purpose of performing and carrying out the duties imposed on the Consulting Engineer by this Indenture, engage, as needed, an independent engineer or traffic consultants or firm or corporation of engineers or rate consultants, in each case with recognized ability and standing, and that it will, for the purpose of performing and carrying out the duties imposed on the Accountants by this Indenture, engage as needed, an independent certified public accountant or firm of certified public accountants of recognized ability and standing. The Authority covenants that it will appoint and maintain a Chairman, Vice-Chairman, Secretary and such other Authorized Officers as it deems appropriate, and delegate to such Persons the duties imposed or permitted to be imposed upon them by this Indenture.

**SECTION 7.06. INSURANCE.** To the extent available at reasonable rates, the Authority covenants that it will maintain insurance, or the Department on its behalf, will at all times maintain insurance with respect to the System, in the form of multiple peril, all risks insurance, provided by a responsible insurance company or companies licensed to and doing business in the State, in a reasonable and customary amount recommended by the Consulting Engineer. To the extent available at reasonable rates, the Authority, or the Department on its behalf, further covenants that it will at all times carry policies of insurance from a responsible insurance company or companies against loss, total or partial, of the use and occupancy of the System, or any part thereof, which will provide income to the Authority during the period of suspension of use.

Notwithstanding the foregoing provisions of this Section, the Authority may institute and maintain self-insurance programs with regard to such risks as shall be consistent with the recommendations of the Consulting Engineer.

The Net Proceeds of any casualty, whether from insurance or self-insurance, shall be applied pursuant to Section 7.07. The Net Proceeds of all insurance covering loss of Revenues shall be deposited to the credit of the Revenue Fund.

**SECTION 7.07. DAMAGE, DESTRUCTION OR CONDEMNATION.** If the System or any 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, within sixty days after such damage, destruction or condemnation elect, to the extent applicable, one of the two following options by written notice from an Authorized Officer of such election to the Trustee:

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**SECTION 7.02. CONSTRUCTION OF A PROJECT.** The Authority covenants that it will construct or otherwise carry out each Project for which Bonds shall be issued in accordance with this Indenture and in conformity with law and the requirements of governmental authorities having jurisdiction thereof, and that it will complete, or cause the completion of, such Projects with all expedience practicable.

The Authority further covenants that it will require each Person, firm or corporation with whom it may contract for labor or materials in connection with a Project to furnish a performance bond, in such amount, if any, as may be required under State law or as may otherwise be required by the Authorized Officer charged with responsibility for establishing the amount of such performance bond, to insure completion and performance of such contract or, in lieu thereof, to deposit with an Authorized Officer marketable securities having a market value equal to the amount of such payment and performance bond and eligible as security for the deposit of trust funds under regulations of the Board of Governors of the Federal Reserve System, and to carry such workers' compensation or employers' liability insurance and such builders' risk insurance, if any, as may be required by law. The Authority further covenants and agrees that in the event of any default under any such contract and the failure of the surety to complete the contract, it will proceed to collect under any such performance bond or securities and the proceeds of any such performance bond or securities shall forthwith, upon receipt of such proceeds, be applied toward the completion of the contract in connection with which such performance bond or securities shall have been furnished. The Authority further covenants and agrees that each such contract will also provide that payments thereunder shall not be made by the Authority in excess of such retainages as required by State law or as are established by the Authority upon the recommendation of the Consulting Engineer.

**SECTION 7.03. OPERATION OF THE SYSTEM.** The Authority covenants: (a) to establish from time to time and to enforce reasonable rules and regulations governing the use and operation of the System to the extent determined by the Authority to be necessary to provide for the safe and efficient operation of the System, (b) that all compensation, salaries, fees, wages and other amounts paid by it in connection with the maintenance, repair and operation of the System will be reasonable, (c) that no more Persons will be employed by it than are necessary, (d) that it will maintain and operate the System, or cause the System to be maintained and operated, in a safe, efficient and economical manner, (e) that it will at all times maintain the System, or cause the System to be maintained, in good repair and in sound operating condition and (f) that it will make all necessary repairs, renewals and replacements from moneys available for that purpose, or will cause the same to be made.

**SECTION 7.04. COVENANT AGAINST ENCUMBRANCES.** The Authority covenants that it will pay all taxes and assessments or other governmental charges lawfully levied or assessed upon or in respect of the System or upon any part thereof or upon any Revenues when the same shall become due and payable by the Authority. Except to the extent permitted in this Indenture, the Authority will not create or suffer to be created any lien or charge upon the System or any part thereof or upon the Revenues ranking equally with or prior to the Bonds except, to the extent provided herein with respect to the Series 1996 Bonds or in the Supplemental Indenture authorizing the issuance of any other Series of Bonds, the lien for the benefit of any Credit Provider or Liquidity Provider securing payment of the Bonds, and that, it

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(a) Option A - Repair, Restoration or Replacement. Except as provided in Option B, the Authority will 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 Article IV for the payment of the Cost of a 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 moneys in the General Fund, and if sums are unavailable therein, from the Revenue Fund.

(b) Option B - Redemption.

(i) In the event that the Authority has determined that its operations have not been materially adversely affected and that it is not in the best interest of the Authority to repair, restore or replace that portion of the System so damaged, destroyed or condemned, then the Authority shall not be required to comply with the provisions of subparagraph (a) set forth above and: (A) if the Net Proceeds are less than the Principal and Interest Requirements during the succeeding twelve months on all Outstanding Bonds after taking into account funds on deposit in the Sinking Fund intended to pay such Principal and Interest Requirements, such Net Proceeds shall be deposited in the Revenue Fund; or (B) if the Net Proceeds are equal to or greater than the net amount specified in clause (A), then the net amount specified shall be deposited in the Revenue Fund and the amount in excess thereof shall be applied to effect the special mandatory redemption, in part, of Outstanding Bonds in accordance with Section 3.01(b), in the case of the Series 1996 Bonds, or in accordance with such similar provisions as may apply to the redemption of other Outstanding Bonds.

(ii) In the event that the Authority has determined that the System's operations have been materially adversely affected and that it is not in the best interest of the Authority to repair, restore or replace the System, and that the Net Proceeds, together with all other sums in the Funds, Accounts and Subaccounts, are at least equal to the interest and principal remaining payable on all Outstanding Bonds as of the next Interest Payment Date that is at least 60 days after such determination, then the Authority shall not be required to comply with the provisions of subparagraph (a) set forth above and the Net Proceeds shall be applied to effect the special mandatory redemption, in whole, of Outstanding Bonds in accordance with Section 3.01(b), in the case of the Series 1996 Bonds, or in accordance with such similar provisions as may apply to the redemption of other Outstanding Bonds.

**SECTION 7.08. USE OF REVENUES.** The Authority covenants and agrees that none of the Revenues will be used for any purpose other than as provided in this Indenture. The

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Authority further covenants that it will adopt such resolutions and such rules and regulations as may be necessary or appropriate to carry out the obligations of the Authority under the provisions of this Indenture.

#### SECTION 7.09. [RESERVED]

**SECTION 7.10. ENFORCEMENT OF COLLECTIONS.** The Authority will diligently enforce and collect all Tolls, fees, rentals or other charges for the services and facilities of the System and take all steps, actions and proceedings for the enforcement and collection of such Tolls, fees, rentals and other charges which shall become delinquent to the full extent permitted or authorized by the laws of the State.

**SECTION 7.11. RECORDS, ACCOUNTS AND AUDITS.** (a) The Authority covenants that it will keep accurate records and accounts of all expenditures relating to the Authority, of the Revenues, the application of Revenues and the number and class of vehicles using the System. All expenditures must be accounted for by proper invoices or approved charge documents prior to any such expenditure.

(b) The Authority further covenants that at least quarterly it will cause to be filed with the Trustee a report signed by the Chairman or Vice Chairman and the Executive Director or his designee setting forth financial statements prepared in accordance with generally accepted accounting principles applicable to the operations of the Authority: (a) for all months of the current Fiscal Year including the month in which said report is given; and (b) for the same months of the preceding Fiscal Year.

(c) The Authority further covenants that it will, at the end of each Fiscal Year, prepare financial statements in accordance with generally accepted accounting principles applicable to operations of the Authority and that it will cause an audit of the financial statements to be made by the Accountant. Such audit will be conducted in accordance with generally accepted auditing standards applicable to operations of the Authority. The audit will be completed within one hundred eighty days after the end of the Fiscal Year. Within a reasonable time thereafter reports of such audit and copies of each report shall be filed with the Trustee and copies of such reports shall be mailed by the Authority to the Consulting Engineer. The scope of the Accountant's audit will be sufficient to enable it to report as to compliance by the Authority with the rate covenant of this Indenture and any material non-compliance by the Authority of the conditions and covenants under this.

(d) The Authority further covenants that it will cause any additional reports relating to the Authority to be made as required by law.

(e) All of the reports described in clauses (a) through (d) of this Section shall be made available by the Authority to any Bondholder that requests same.

(f) Commencing with the Fiscal Year ending on June 30, 1998, the Authority shall provide or cause to be provided to the Credit Provider the following information:

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(b) a certificate of the Consulting Engineer projecting that the Revenues for the next succeeding twelve months, after giving effect to such abandonment, sale or trade and any replacement, and after adjustment to reflect changes in the rate schedule in effect on the date of such certificate, are anticipated to be sufficient in all respects to comply with Section 5.01;

(c) a certificate of the Authority that such abandonment, sale or trade considering the use the Authority has stated it intends to make with any proceeds derived therefrom, and after consideration of all other benefits and detriments anticipated to result therefrom, will not have a material adverse impact on future Revenues, and is consistent with the Authority's business and purpose; and

(d) an Opinion of Bond Counsel.

The proceeds of any disposition authorized by the Consulting Engineer's certificate as aforescribed shall be applied as stated therein or, if not so stated, the proceeds of the sale of any property shall either be deposited by the Authority with the Trustee for deposit to the credit of the Revenue Fund, or shall be applied to the replacement of the property so sold, and any property acquired as such replacement shall become a part of the System subject to the provisions of this Indenture.

Nothing in this Section 7.12 shall limit the power of the Authority to enter into any sale, lease or lease-purchase of the System with the Department, or any other entity provided such sale, lease or lease-purchase is subject to the terms of this Indenture and in no way adversely impairs the amount, or pledge, of the Revenues and sums in the Funds and Accounts available to Bondholders as set forth herein. Nothing in this Section 7.12 shall limit the power of the Authority to enter into operating agreements with governmental or private entities, providing that such agreements are consistent with and subject to this Indenture and the Authority obtains an Opinion of Bond Counsel.

**SECTION 7.13. OTHER INDEBTEDNESS.** Nothing in this Indenture shall be construed as in any way prohibiting or limiting the power of the Authority to enter into agreements, including interest rate swaps, incur obligations, undertake indebtedness or otherwise enter into any financing transactions to the extent such agreements, obligations, indebtedness or financing transactions do not impose any lien upon the Revenues and are payable from sources other than Revenues. The foregoing shall include bond or revenue anticipation notes, including notes anticipated to be paid from proceeds of Bonds issued hereunder, and any other obligations of the Authority that are payable from funds other than Revenues.

**SECTION 7.14. INVESTMENTS AND USE OF PROCEEDS TO COMPLY WITH CODE; TAXABLE BONDS.**

(a) The Authority covenants with the Owners of each Series of Bonds (other than the Series 1996 Bonds and any other Series of Taxable Bonds), that it shall comply with the requirements of the Code necessary to maintain the exclusion of interest on the Bonds from gross income for purposes of federal income taxation, including the payment

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(i) Not later than 10 days prior to the commencement of each Fiscal Year, the Annual Budget for such Fiscal Year;

(ii) Within 180 days after the end of each Fiscal Year, the audited financial statements described in clause (c) of this Section, together with a statement of the amount credited to the Debt Service Reserve Fund as its last valuation, and, if not presented in such audited financial statements, a statement of the Revenues pledged to payment of Bonds in each such Fiscal Year, a statement of the number of vehicles using the Toll facilities of the System during such Fiscal Year broken down by class of user and a schedule of Toll rates in effect for all classes of vehicles, and a description of any planned improvements or improvements then underway;

(iii) Within 30 days after the incurrence by the Authority of any indebtedness other than the Series 1996 Bonds, including, without limitation, Additional Bonds, Refunding Bonds and Completion Bonds, a copy of the official statement or other disclosure document, if any, prepared in connection therewith;

(iv) Notice of any draw upon or deficiency due to market fluctuation in the amount, if any, credited to the Debt Service Reserve Fund;

(v) notice of the redemption, other than mandatory sinking fund redemption, of any of the Bonds, or of any advance refunding of any of the Bonds, including the principal amount, maturities and CUSIP numbers of such Bonds;

(vi) such additional information as the Credit Provider may reasonably request from time to time.

**SECTION 7.12. SALE OR DISPOSAL OF SYSTEM.** The Authority covenants that, except as permitted by this Section 7.12 and as in this Indenture otherwise permitted, it will not sell or otherwise dispose of or encumber the System or any part thereof. The Authority may, from time to time sell any machinery, fixtures, apparatus, tools, instruments or other property acquired by the Authority in connection with the System and materials used in connection therewith, if an Authorized Officer shall determine that such property is no longer needed or is no longer useful in connection with the construction or operation or maintenance of the System. The proceeds of any such sale shall be applied to the replacement of the property so sold or disposed of and any property so acquired as such replacement shall become a part of the System subject to this Indenture or such proceeds shall be deposited to the credit of the Revenue Fund. Notwithstanding the foregoing, the Authority may from time to time, upon compliance with the terms and conditions of the Transfer Agreement, permanently abandon the use of, sell or trade any property forming a part of the System, but only if there shall be filed with the Authority prior to such abandonment, sale or trade:

(a) a certificate of the Authority stating that the Authority is not then in default in the performance of any of the material covenants, conditions, agreements or provisions contained in this Indenture; and

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of any amount required to be rebated to the U.S. Treasury pursuant to the Code, and, in particular, that it shall not make or direct the making of any investment or other use of proceeds of such Series of Bonds (or amounts deemed to be proceeds under the Code) in any manner which would cause the interest on such Series of Bonds to be or become subject to federal income taxation, nor shall it fail to do any act which is necessary to prevent such interest from becoming subject to federal income taxation.

(b) The Authority covenants with the Owners of each Series of Bonds (other than the Series 1996 Bonds and any other Series of Taxable Bonds) that neither the Authority nor any other Person under its control or direction will make any investment or other use of the proceeds of Bonds (or amounts deemed to be proceeds under the Code) in any manner which would cause such Series of Bonds to be "private activity bonds" as that term is defined in Section 141 of the Code (or any successor provision thereto), except as to any Series so categorized at the time of issuance, and that it will comply with the requirements of the Code throughout the term of the Bonds.

(c) The Authority may, if it so elects, issue one or more Series of Taxable Bonds, the interest on which is (or may be) includable in the gross income of the Owners thereof for federal income taxation purposes, provided that the issuance thereof will not cause the interest on any other Bonds theretofore issued hereunder to be or become subject to federal income taxation.

(d) Notwithstanding anything to the contrary contained in subparagraphs (a) through (c) hereof, the Authority may, if it so elects, issue one or more Series of Bonds as "private activity bonds," as that term is defined in Section 141 (or any successor provision thereto) of the Code and which are "qualified bonds," as that term is defined in Section 141 (or any successor provision thereto) of the Code and, in the event it does so, the Authority covenants that it will not make or direct the making of any investment nor will it use the proceeds of any such Series in a manner which would make such Bonds not "qualified bonds."

**SECTION 7.15. ARBITRAGE REBATE COVENANTS.** There is hereby created a Fund to be designated the "Dade County Expressway Authority Rebate Fund" which shall be held and maintained by the Trustee. Prior to the issuance of each Series of Bonds other than the Series 1996 Bonds or any other Series of Taxable Bonds, the Authority shall execute and deliver a certificate or agreement containing arbitrage rebate covenants (the "Rebate Covenants") as to said Series of Bonds. The Authority shall make or cause to be made payments from the Rebate Fund of amounts required to be deposited therein to the United States of America in the amounts and at the times required by the Rebate Covenants. The Authority covenants for the benefit of the Bondholders that it will comply with the requirements of the Rebate Covenants. There shall be excluded from the pledge and lien of this Indenture the Rebate Fund, together with all moneys and securities from time to time held therein and all investment earnings derived therefrom. The Authority shall not be required to comply with the requirements of this Section 7.15, or with the Rebate Covenants, in the event that the Authority obtains an Opinion of Bond Counsel that: (a) such compliance is not required in order to maintain the federal income tax exemption of interest on the Bonds; and/or (b) compliance with some other

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requirement is necessary to maintain the federal income tax exemption of interest on the Bonds or is a permissible substitute for any deleted requirement. The Authority shall enter into a Supplemental Indenture, or amend the Rebate Covenants, as may be applicable, to reflect the deletion or substitution of any such requirement. In addition, the Authority shall not be required to comply with this Section 7.15 to the extent that any Bonds issued under this Indenture are Taxable Bonds.

**SECTION 7.16. NO COMPETING SYSTEMS.** The Authority will not acquire, construct, lease or operate, nor will it cause or authorize the acquisition, construction, lease or operation of a competing roadway, bridge or tunnel system that will traverse the same or nearly the same route as the System without first having obtained a report from the Consulting Engineer demonstrating the need for the additional roadway, bridge or tunnel and a Consulting Engineer's certificate demonstrating that the acquisition, construction, lease or operation of the additional roadway, bridge or tunnel will not have a material adverse effect on Revenues or the Authority's ability to pay debt service on Outstanding Bonds and that the additional roadway, bridge or tunnel is capable of being financed and operated in a fiscally sound and prudent manner.

**SECTION 7.17. [RESERVED]**

**SECTION 7.18. AGREEMENTS WITH DEPARTMENT.** The Authority covenants to diligently enforce all obligations of the Department under the Transfer Agreement, the Toll Operations and Maintenance Agreement, the Roadway Operations and Maintenance Agreement and the SunPass Agreement. The Authority covenants to perform all of its obligations under such agreements. Notwithstanding the foregoing, the Authority shall have no obligation to cause the Toll Operations and Maintenance Agreement, the Roadway Operations and Maintenance Agreement or the SunPass Agreement to remain in effect.

**SECTION 7.19. COVENANTS WITH CREDIT PROVIDERS AND LIQUIDITY PROVIDERS.** The Authority may make such covenants as it may, in its sole discretion, determine to be appropriate with any Credit Provider, Liquidity Provider or other financial institution that shall agree to provide for Bonds of any one or more Series a Credit Facility or Liquidity Facility that shall enhance the security or the value of such Bonds; provided, however, such covenants may not impair the rights of any existing Bondholders in any manner that, pursuant to Section 11.02, would require such Bondholder's consent, without first obtaining such consent.

**SECTION 7.20. CONTINUING DISCLOSURE.** The Authority agrees to enter into a Continuing Disclosure Agreement with respect to the Series 1996 Bonds and with respect to each other Series of Bonds to the extent required by law and to comply with and carry out all of the provisions of any such Continuing Disclosure Agreement. Notwithstanding any other provision hereof, failure of the Authority or the dissemination agent named therein to comply with any Continuing Disclosure Agreement shall not be considered an Event of Default; provided, however, the dissemination agent may (and, at the request of any Participating Underwriter or the Owners of at least twenty-five percent (25%) in aggregate principal amount of Outstanding Bonds, shall) or any Bondholder may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order to cause the

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**SECTION 8.02. RESPONSIBILITIES OF FIDUCIARIES.** The statements contained herein and in the Bonds shall be taken as the statements of the Authority and the Fiduciaries assume no responsibility for the correctness of same. The Fiduciaries make no representation as to the validity or sufficiency of this Indenture or as to the security afforded by this Indenture and each Fiduciary shall incur no liability with respect thereto. The Bond Registrar shall, however, be responsible for its representation contained in its certificate of authentication on the Bonds. The Fiduciaries shall not be under any responsibility or duty with respect to the application of any moneys paid by such Fiduciaries in accordance with the provisions of this Indenture to or upon the order of the Authority or to any other Fiduciary. The Fiduciaries shall not be under any obligation or duty to perform any act which would involve them in expense or liability or to institute or defend any suit with respect thereto, or to advance any of their own moneys, unless indemnified to their satisfaction. Subject to the provisions of the following paragraph, the Fiduciaries shall not be liable in connection with the performance of their duties hereunder except for their own negligence or willful default.

**SECTION 8.03. EVIDENCE ON WHICH FIDUCIARIES MAY ACT.** The Fiduciaries, upon receipt of any notice, resolution, request, consent, order, certificate, report, opinion, bond or other paper or document furnished to them pursuant to any provision of this Indenture shall examine such instrument to determine whether it conforms to the requirements of this Indenture and shall be protected in acting upon any such instrument believed by them to be genuine and to have been signed or presented by the proper party or parties. Each Fiduciary may reasonably consult with counsel and certified public accounting firms, who may or may not be counsel to, or accountants for, the Authority, and the opinion of such counsel or accountants shall be full and complete authorization and protection in respect of any action taken or suffered by it under this Indenture in good faith and in accordance therewith.

Whenever a Fiduciary shall deem it necessary or desirable that a matter be proved or established prior to taking or suffering any action under this Indenture, such matters (unless other evidence in respect thereof be therein specifically prescribed) may be deemed to be conclusively proved and established by a certificate of an Authorized Officer, and such certificate shall be full warrant for any action taken or suffered in good faith based thereon; but in its discretion, a Fiduciary may in lieu thereof accept other evidence of such fact or matter or may require such further or additional evidence as may seem reasonable to it.

Except as otherwise expressly provided this Indenture, any request, order, notice or other direction required or permitted to be furnished pursuant to any provision thereof by the Authority to a Fiduciary shall be sufficiently executed in the name of the Authority by an Authorized Officer.

The Trustee shall not be presumed to have knowledge of any Event of Default other than those Events of Default described in Section 9.02(a), (b) and (c), unless the Trustee receives written notice specifying such Event of Default from the Authority or the Owners of ten percent (10%) or more in aggregate principal amount of Outstanding Bonds.

**SECTION 8.04. COMPENSATION.** Prior to its appointment, each Fiduciary shall file with the Authority a negotiated schedule of anticipated fees and charges for services to

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Authority and the dissemination agent to comply with their respective obligations under this Section 7.20 and any applicable Continuing Disclosure Agreement.

To the extent there are Obligated Persons with respect to any Series of Bonds other than the Authority, the Authority shall, prior to the issuance of such Bonds, cause each Obligated Person to execute a written undertaking for the benefit of, and enforceable by, the Owners, from time to time, of such Bonds to provide with respect to each such Obligated Person an annual update of the financial information and operating data set forth in the Official Statement relating to the Bonds, annual financial statements, if any, and notices of occurrence of material events as required by Rule 15(c)-12 of the Securities and Exchange Commission. Any Obligated Person with respect to a Series of Bonds, other than the Authority, shall be required, in the written undertaking described above, to specify, in reasonable detail, the type of financial information and operating data to be provided, the accounting principles pursuant to which financial statements will be prepared, and whether the financial statements will be audited, and the date on which the information for each preceding fiscal year will be provided, and to whom it will be provided.

**ARTICLE VIII**

**CERTAIN MATTERS RELATING TO THE TRUSTEE,  
BOND REGISTRAR AND PAYING AGENT**

**SECTION 8.01. CERTAIN MATTERS RELATING TO THE TRUSTEE, BOND REGISTRAR AND PAYING AGENT.** (a) The Trustee, Bond Registrar and Paying Agent (hereinafter sometimes referred to collectively as the "Fiduciaries") will signify the acceptance of the duties and obligations imposed upon them by this Indenture and any other agreements with the Authority by executing and delivering to the Authority a written acceptance thereof, and by executing such acceptance, each Fiduciary shall be deemed to have accepted such duties and obligations with respect to the Bonds, upon and subject to the provisions set forth in this Article VIII.

(b) Except during the continuance of an Event of Default, (i) the Trustee undertakes to perform such duties and only such duties as are specifically set forth in this Indenture and no implied covenants or obligations shall be read into this Indenture against the Trustee; (b) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture. In case the Trustee has actual notice that an Event of Default has occurred and is continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in the exercise of such rights and powers, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs. The Trustee may consult with counsel, including counsel who rendered the approving opinion on the Bonds, and the written advice or opinion of such counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon.

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be performed pursuant to this Indenture. The Authority shall pay to such Fiduciary from time to time pursuant to such schedule reasonable compensation for all services rendered, and all reasonable expenses, charges, counsel fees and expenses and other disbursements, including those of its attorneys, agents, and other Persons not regularly in its employ, incurred in and about the performance of its powers and duties under this Indenture. To the extent permitted by law, the Authority hereby agrees to indemnify each Fiduciary and hold it harmless from any and all claims, liabilities, losses, actions, suits or proceedings at law or in equity brought by third parties, or any other expenses, fees or charges of any character or nature which it may incur or with which it may be threatened by reason of such third party threats or proceedings, except in the case of such Fiduciary's own negligence or willful default, and in connection therewith to indemnify such Fiduciary against any and all expenses, including attorneys' fees and expenses and the costs of defending any action, suit or proceeding or resisting any claim, including appellate proceedings. Notwithstanding anything in this Indenture to the contrary, no Fiduciary shall be entitled to payment from or have any claim or lien on moneys paid under a Credit Facility or a Liquidity Facility or on moneys representing the proceeds of remarketing of Bonds under Article III of this Indenture.

**SECTION 8.05. CERTAIN PERMITTED ACTS.** A Fiduciary may become the Owner of any Bonds, with the same rights it would have if it were not a Fiduciary. To the extent permitted by law, a Fiduciary may act as Depository for, and permit any of its officers or directors to act as a member of, or in any other capacity with respect to, any committee formed to protect the rights of Bondholders or to effect or aid in any reorganization growing out of the enforcement of the Bonds or this Indenture, whether or not any such committee shall represent the Owners of a majority in aggregate principal amount of the Bonds then Outstanding.

**SECTION 8.06. RESIGNATION OF TRUSTEE.** The Trustee may at any time resign and be discharged from the duties and obligations created by this Indenture by giving not less than ninety (90) days' written notice to the Authority and the Credit Provider, and sending notice thereof by first-class, postage prepaid mail to the Bondholders. Such resignation shall take effect upon the date in such notice unless previously a successor Trustee shall have been appointed by the Authority or the Bondholders as provided in Sections 8.07 and 8.08, in which event such resignation shall take effect immediately on the appointment of such successor; provided that no resignation shall become effective until the appointment of a successor Trustee.

**SECTION 8.07. REMOVAL OF TRUSTEE.** The Trustee may be removed at any time with or without cause by any instrument or concurrent instruments in writing, filed with the Trustee and the Credit Provider, and signed by the Owners of a majority in principal amount of the Bonds then Outstanding or their duly authorized attorneys or legal representatives. So long as no Event of Default or an event which with notice or passage of time, or both, would become an Event of Default, shall have occurred and be continuing, the Trustee may be removed at any time with or without cause by resolution of the Authority filed with the Trustee and the Credit Provider. No removal shall become effective until the appointment of a successor Trustee. Notwithstanding anything to the contrary contained herein or in this Indenture, the Authority shall pay to the Trustee all fees, charges and expenses owing to the Trustee together with all fees and expenses (including reasonable attorneys' fees and expenses) reasonably incurred by the Trustee in connection with its removal by the Authority.

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**SECTION 8.08. APPOINTMENT OF SUCCESSOR TRUSTEE.** In case at any time the Trustee shall resign or shall be removed or shall become incapable of acting, or shall be adjudged a bankrupt or insolvent, or if a receiver, liquidator or conservator of the Trustee, or of its property, shall be appointed, or if any public officer shall take charge or control of the Trustee, or of its property or affairs, a successor shall be appointed by the Authority by a duly executed written instrument signed by an Authorized Officer. The Authority shall give notice of any such appointment made by it by mailing written notice of such appointment by first-class mail, postage prepaid, to the Credit Provider and to the Owners of the Bonds as their names and addresses appear in the books kept by the Bond Registrar, such notice to be given within thirty (30) days after such appointment.

If in a proper case no appointment of a successor Trustee shall be made pursuant to the foregoing provisions of this Section 8.08 within forty-five (45) days after the Trustee shall have resigned or been removed or after a vacancy in the office of the Trustee shall have occurred, the Trustee or the Owner of any Bond may apply to any court of competent jurisdiction to appoint a successor Trustee. Said court may thereupon, after such notice, if any, as such court may deem proper, appoint a successor Trustee. The Authority shall pay the Trustee all fees and expenses, including reasonable attorneys' fees and expenses and the costs of bringing such proceedings (including appellate proceedings) incurred by the Trustee in connection with obtaining such court appointment of a successor Trustee.

Any Trustee appointed under the provisions of this Section 8.08 shall be a subsidiary of, or under common control with, a bank with trust powers, a trust company or a national banking association with trust powers, having capital stock, surplus and undivided earnings aggregating at least \$50,000,000, if there be such a bank or trust company or national banking association willing and able to accept the office on reasonable and customary terms and authorized by law to perform all the duties imposed upon it by this Indenture. Any such bank or trust company shall be organized and existing under the laws of a state of the United States.

**SECTION 8.09. TRANSFER OF RIGHTS AND PROPERTY TO SUCCESSOR TRUSTEE.** Any successor Trustee appointed under this Indenture shall execute, acknowledge and deliver to its predecessor Trustee, and also to the Authority, an instrument accepting such appointment, and thereupon such successor Trustee, without any further act, deed or conveyance, shall become fully vested with all moneys, estates, properties, rights, powers, duties and obligations of such predecessor Trustee, with like effect as if originally named as Trustee. The Trustee ceasing to act shall nevertheless, on the written request of the Authority, or of the successor Trustee, execute, acknowledge and deliver such instrument of conveyance and further assurance and do such other things as may reasonably be required for more fully and certainly vesting and confirming in such successor Trustee all the right, title and interest of the predecessor Trustee in and to any property held by it under this Indenture, and shall pay over and assign to the successor Trustee any money or other property subject to the trusts and conditions herein set forth. Should any deed, conveyance or instrument in writing from the Authority be reasonably required by such successor Trustee for more fully and certainly vesting in and confirming to such successor Trustee any such estates, rights, power and duties, any and all such deeds, conveyances and instruments in writing shall, on request, and so far as may be authorized by law, be executed, acknowledged and delivered by the Authority.

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signed by an Authorized Officer. Any successor Bond Registrar shall be appointed by the Authority and shall be a bank with trust powers, a trust company or a national banking association with trust powers willing and able to accept the office on reasonable and customary terms and authorized by law to perform all the duties imposed by this Indenture. Any such bank or trust company shall be organized and existing under the laws of a state of the United States. The Authority shall give written notice of such appointment to the Credit Provider. In the event of the resignation or removal of the Bond Registrar, such Bond Registrar shall assign and deliver the books for registration and transfer of Bonds maintained by it to its successor, or if there be no successor, to the Trustee. In the event that for any reason there shall be a vacancy in the office of any Bond Registrar, the Trustee shall act as such Bond Registrar.

## ARTICLE IX

### EVENTS OF DEFAULT; REMEDIES

**SECTION 9.01. EXTENSION OF INTEREST PAYMENT.** In case the time for the payment of interest on any Bond shall be extended by operation of law, whether or not such extension be by or with the consent of the Authority, such interest so extended shall not be entitled in case of default hereunder to the benefit or security of this Indenture except subject to the prior payment in full of the principal of all Bonds then Outstanding and of all interest the time for the payment of which shall not have been extended.

**SECTION 9.02. EVENTS OF DEFAULT.** Each of the following events is hereby declared an "Event of Default":

- (a) payment of the principal or Purchase Price of and the redemption premium, if any, on any of the Bonds shall not be made when the same shall become due and payable, either at maturity or by proceedings for redemption or otherwise; or
- (b) payment of any installment of interest on any of the Bonds shall not be made when the same shall become due and payable; or
- (c) redemption of Term Bonds in accordance with an Amortization Requirement shall not be made as required; or
- (d) the Authority admits in writing its inability to pay its debts generally as they become due, or files a petition in bankruptcy or makes an assignment for the benefit of its creditors or consents to the appointment of a receiver or trustee for itself or for all or a substantial part of the System; or
- (e) the Authority is adjudged insolvent by a court of competent jurisdiction, or is adjudged a bankrupt or a petition in bankruptcy is filed against the Authority, or an order, judgment or decree is entered by a court of competent jurisdiction appointing, without the consent of the Authority, a receiver or trustee of the Authority or of the whole or any part of its property and any of the aforesaid adjudications, orders, judgments or decrees shall not be vacated or set aside or stayed within ninety days from the date of entry thereof; or

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**SECTION 8.10. MERGER OR CONSOLIDATION OF FIDUCIARY.** Any company into which any Fiduciary may be merged or converted or with which it may be consolidated or any company resulting from any merger, conversion or consolidation to which it shall be a party or any company to which any Fiduciary may sell or transfer all or substantially all of its corporate trust business, provided such company shall be a bank with trust powers, a trust company or a national banking association with trust powers and shall be authorized by law to perform all duties imposed upon it by this Indenture, shall be the successor to such Fiduciary without the execution or filing of any paper or the performance of any further act. Any such bank or trust company shall be organized and existing under the laws of a state of the United States.

**SECTION 8.11. ADOPTION OF AUTHENTICATION.** In case any of the Bonds contemplated to be issued under this Indenture shall have been authenticated but not delivered, any successor Bond Registrar may adopt the certificate of authentication of any predecessor Bond Registrar so authenticating such Bonds and deliver such Bonds so authenticated; and in case any of the Bonds shall not have been authenticated, any successor Bond Registrar may authenticate such Bonds in the name of, but as successor to, the predecessor Bond Registrar, or in the name of the successor Bond Registrar; and, in all such cases, such certificate shall be given full force and effect.

**SECTION 8.12. RESIGNATION OR REMOVAL OF PAYING AGENT AND APPOINTMENT OF SUCCESSOR.** The Paying Agent may, at any time, resign and be discharged of the duties and obligations created by this Indenture by giving ninety (90) days' written notice to the Authority, the Credit Provider and the Trustee. So long as no Event of Default or an event which, with notice or passage of time, or both, would become an Event of Default, shall have occurred and be continuing, the Paying Agent may be removed at any time by an instrument filed with such Paying Agent, the Credit Provider and the Trustee and signed by an Authorized Officer. Any successor Paying Agent shall be appointed by the Authority and shall be a bank with trust powers, a trust company or a national banking association with trust powers willing and able to accept the office on reasonable and customary terms and authorized by law to perform all the duties imposed upon it by this Indenture. Any such bank or trust company shall be organized and existing under the laws of a state of the United States. The Authority shall give written notice of such appointment to the Credit Provider.

In the event of the resignation or removal of the Paying Agent, such Paying Agent shall pay over, assign and deliver any moneys held by it as Paying Agent to its successor, or if there be no successor, to the Trustee. In the event that for any reason there shall be a vacancy in the office of any Paying Agent, the Trustee shall act as such Paying Agent.

**SECTION 8.13. RESIGNATION AND REMOVAL OF BOND REGISTRAR AND APPOINTMENT OF SUCCESSOR.** The Bond Registrar may, at any time, resign and be discharged of the duties and obligations created by this Indenture by giving at least ninety (90) days' written notice to the Authority, the Credit Provider and the Trustee. So long as no Event of Default or an event which, with notice or passage of time, or both, would become an Event of Default, shall have occurred and be continuing, the Bond Registrar may be removed at any time by an instrument filed with such Bond Registrar, the Credit Provider and Trustee and

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(f) the Authority shall file a petition or answer seeking reorganization or any arrangement under the federal bankruptcy laws or any other applicable law or statute of the United States of America or any state thereof; or

(g) under the provisions of any other law for the relief or aid of debtors, any court of competent jurisdiction shall assume custody or control of the Authority or of the whole or any substantial part of its property, and such custody or control shall not be terminated within ninety days from the date of assumption of such custody or control; or

(h) the Authority shall default in its obligation to duly and punctually perform any other of the material covenants, conditions, agreements and provisions contained in the Bonds or in this Indenture (other than the covenants set forth at Section 7.20) and such default shall continue for thirty days after written notice specifying such default and requiring same to be remedied shall have been given to the Authority by the Trustee or the Owners of not less than ten percent in aggregate principal amount of the Bonds then Outstanding; or

(i) written notice shall have been received by the Authority from a Credit Provider or Liquidity Provider that an event of default has occurred under the agreement underlying a Credit Facility or Liquidity Facility.

In determining whether an Event of Default has occurred or is continuing under Section 9.02 (a), (b) or (c), no effect shall be given to payments made under a Credit Facility.

The Trustee shall provide to the Authority, the Credit Provider, the Liquidity Provider, the Reserve Facility Provider and the Remarketing Agent immediate notice of any default under Section 9.02 (a), (b) or (c) and notice of any other Event of Default known to the Trustee (as provided in Section 8.03) within 10 days after the Trustee has acquired knowledge thereof. The Trustee shall provide to the Owners of the Bonds prompt written notice of the occurrence and continuance of any Event of Default after the Trustee has acquired knowledge thereof (as provided in Section 8.03).

**SECTION 9.03. ENFORCEMENT OF REMEDIES BY TRUSTEE.** Upon the happening and continuance of any Event of Default, the Trustee, on behalf of the Owners of the Bonds, may, but shall not be obligated to, and shall, if directed by the Owners of not less than a majority in aggregate principal amount of the Bonds then Outstanding and if the conditions precedent hereinafter described are satisfied, exercise all rights granted to Bondholders pursuant to this Article IX in the manner and to the extent specified in this Indenture. Neither the Bonds nor this Indenture confers any right to accelerate the maturity of any of the Bonds. The Owners of the Bonds shall have no right to enforce any remedies upon an Event of Default, except as herein provided. In the event that the Owners of a majority in aggregate principal amount of the Bonds then Outstanding shall have given to the Trustee written notice of an Event of Default on account of which a suit, action or proceeding is to be taken, have made written request of the Trustee to proceed with same, have afforded the Trustee a reasonable opportunity to institute such suit, action or proceeding in its or their name, and shall have offered to the Trustee reasonable security and indemnity against the costs, expenses and liabilities, including attorneys'

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fees and expenses, that may be incurred in connection therewith, the foregoing written notifications, requests and offers of indemnity being conditions precedent to the obligation of the Trustee to pursue any remedy hereunder, and notwithstanding compliance with such conditions precedent the Trustee shall have refused or neglected to comply with such request within a reasonable time, then any Owner of the Bonds may institute any suit, action, mandamus or other proceeding in equity or at law for the enforcement of any right under this Indenture. In addition, upon providing the Trustee with reasonable security and indemnity against costs, expenses and liabilities as aforescribed, the Owners of a majority in aggregate principal amount of the Bonds then Outstanding may, by written notice delivered to the Trustee, direct the method and place of conducting all remedial proceedings to be taken by the Trustee, provided such direction shall not be contrary to provisions of law and this Indenture and, provided further, the Trustee shall have the right to decline to follow any such direction which, in the opinion of the Trustee, would be unjustly prejudicial to Owners of the Bonds not parties to such direction. In the absence of such direction from Bondholders, the Trustee may proceed in the manner it deems appropriate in accordance with the terms and conditions hereof. The Trustee may, in its discretion, notwithstanding the failure of the Owners of the Bonds to provide the indemnity required by the conditions precedent heretofore described, nevertheless bring such suits, actions or proceedings or take such other action as, in its judgment, is proper to be done by it as Trustee, without indemnity, in which event the Authority shall reimburse the Trustee, from Revenues, for all costs and expenses, outlays and counsel fees and other reasonable disbursements properly incurred in connection therewith. Upon an Event of Default the Trustee may exercise all rights and powers granted to the Authority pursuant to Section 9.03 subject, however, to the Trustee's right to reimburse itself for the costs, expenses and liabilities for which it is indemnified pursuant to this Indenture, prior to application of any money in the Sinking Fund for the benefit of the Owners of the Bonds. Upon the occurrence of an Event of Default and the continuance of such Event of Default, the Trustee shall give by first-class, postage prepaid mail to all Bondholders, as their names and addresses appear in the books kept by the Bond Registrar, notice of such Event of Default known to the Trustee, unless such Event of Default shall have been cured; provided, however, that except in the case of an Event of Default described in Sections 9.02(a), (b) or (c), the Trustee shall be protected in withholding such notice so long as the Trustee in good faith determines that such Event of Default is not materially adverse to the interest of Bondholders.

**SECTION 9.04. PRO RATA APPLICATION OF FUNDS.** (a) Anything in this Indenture to the contrary notwithstanding, if at any time during the continuance of an Event of Default the moneys in the Sinking Fund, the Debt Service Reserve Fund, the Renewal and Replacement Fund and the General Fund, when applied in accordance with Article V, shall not be sufficient to pay the principal of, the premium, if any, or the interest on the Bonds as the same are then due and payable, such moneys, together with any moneys then available or thereafter becoming available for such purpose, whether through the exercise of the remedies provided for in this Article or otherwise, shall be applied by the Trustee as follows:

**First:** to the payment to the Fiduciaries of the amount necessary to compensate the Fiduciaries in accordance with the provisions of this Indenture;

**Second:** to the payment of the Persons entitled thereto of all installments of interest then due and payable on the Bonds, in the order in which such

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shall not be required to make payment to the Owner of any Bond until such Bond shall be surrendered to it for appropriate endorsement.

**SECTION 9.05. EFFECT OF DISCONTINUANCE OF PROCEEDINGS.** In case any proceeding taken by the Trustee or any Bondholder on account of any Event of Default shall have been discontinued or abandoned for any reason, then and in every such case, the Authority, the Trustee and the Bondholder shall be restored to their former positions and rights hereunder, respectively, and all rights and remedies of the Authority, the Trustee and the Bondholders shall continue as though no such proceeding had been taken.

**SECTION 9.06. RESTRICTION ON INDIVIDUAL BONDHOLDER ACTIONS.** No Owner of any of the Bonds hereby secured shall have any right in any manner whatever by his or their action to affect, disturb or prejudice the security of this Indenture, or to enforce any right hereunder except in the manner herein provided, and all proceedings at law or in equity shall be instituted, had and maintained for the benefit of all Owners of such Bonds.

**SECTION 9.07. NO REMEDY EXCLUSIVE.** No remedy herein conferred upon the Bondholders is intended to be exclusive of any other remedy or remedies herein provided, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder.

**SECTION 9.08. DELAY NOT A WAIVER.** No delay or omission of the Trustee or a Bondholder to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default or an acquiescence therein; and every power and remedy given by this Indenture to the Trustee and the Bondholders may be exercised from time to time and as often as may be deemed expedient.

**SECTION 9.09. RIGHT TO ENFORCE PAYMENT OF BONDS.** Nothing in this Indenture shall affect or impair the right of any Bondholder to enforce the payment of the principal of, premium, if any, and interest on his Bond, or the obligation of the Authority to pay the principal of, premium, if any, and interest on each Bond to the Owners thereof at the time and place in said Bond expressed.

**SECTION 9.10. RIGHTS OF CREDIT PROVIDER.** In the event that, following an Event of Default, a Credit Provider honors its obligation under a Credit Facility to make payments on a Series of Bonds, said Credit Provider shall be entitled to exercise the rights of the Owners of the said Bonds for the purposes of this Article.

Anything in this Indenture to the contrary notwithstanding, while an Event of Default has occurred and is continuing hereunder, any Credit Provider, on behalf of the Owners of Bonds secured by such Credit Provider, or Owners of a majority in principal amount of the Bonds then Outstanding hereunder shall have the right, by an instrument in writing executed and delivered to the Authority and the Trustee, to direct the time and method of conducting all proceedings available under this Indenture or exercising any trust or power conferred by this Indenture in accordance with the provisions of this Indenture; provided, however, that the Credit Provider shall have no such rights if it has defaulted under its obligations under a Credit Facility. In the

installments become due and payable on the Bonds, and, if the amount available shall not be sufficient to pay in full any particular installment on the Bonds, then the payment ratably, according to the amounts due on such installment, to the Persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds;

**Third:** to the payment of the Persons entitled thereto of the unpaid principal of any of the Bonds which shall have become due (other than Bonds called for redemption for the payment of which sufficient moneys are held pursuant to the provisions of this Indenture), in the order in which such principal became due, with interest thereon at the respective rates specified therein from the respective dates upon which they became due, and, if the amount available shall not be sufficient to pay in full the principal of Bonds due on any particular date, together with such interest, then to the payment first of such interest, ratably according to the amount of such interest due on such date, and then to the payment of such principal, ratably, according to the amount of such principal due on such date, to the Persons entitled thereto without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds;

**Fourth:** to the payment of the interest on and principal of the Bonds, to the purchase and retirement of Bonds and to the redemption of Bonds, all in accordance with the provisions of Article V;

**Fifth:** to the Department for any amounts owed by the Authority to the Department under Section 5.12 or that are otherwise payable to the Department out of moneys credited to the General Fund; and

**Sixth:** to the Authority for any lawful purpose.

(b) The provisions of this Section are in all respects subject to the provisions of Section 9.01. Whenever moneys are to be applied by the Trustee pursuant to the provisions of this Section, such moneys shall be applied by the Trustee at such times, and from time to time, as the Trustee in its sole discretion shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future; the deposit of such moneys with the Paying Agent or otherwise setting aside such moneys in trust for the proper purpose, shall constitute proper application by the Trustee; and the Trustee shall incur no liability whatsoever to any Bondholder, Credit Provider, Liquidity Provider or to any other Person for any delay in applying any such funds, so long as the Trustee acts with reasonable diligence, having due regard to the circumstances, and ultimately applies the same in accordance with such provisions of this Indenture as may be applicable at the time of application. Whenever the Trustee shall exercise such discretion in applying such funds it shall fix the date upon which such application is to be made and upon such date interest on the amounts of principal to be paid on such date shall cease to accrue. The Trustee shall give such notice as it may deem appropriate of the fixing of any such date, and

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event of a conflict between the directions of any Credit Provider and those of the Owners of such Bonds, with respect to an Event of Default described in Section 9.02(i), the directions of such Credit Provider shall prevail, and with respect to any other Event of Default the directions of the Owners of the Bonds shall prevail.

The Trustee shall accept notice from the Credit Provider as to the occurrence or continuance of any Event of Default.

**SECTION 9.11. CLAIM UPON INITIAL CREDIT FACILITY.** (a) If on the third day (or the last Business Day at least three days) preceding any Interest Payment Date for the Series 1996 Bonds there is not on deposit with the Trustee sufficient moneys available to pay all principal of and interest on the Series 1996 Bonds due on such Interest Payment Date, the Trustee shall immediately notify the Initial Credit Provider and State Street Bank and Trust Company, N.A., New York, New York or its successor as its Fiscal Agent (the "Fiscal Agent") of the amount of such deficiency. If, by said Interest Payment Date, the Authority has not provided the amount of such deficiency, the Bond Registrar shall simultaneously make available to the Initial Credit Provider and to the Fiscal Agent the registration books for the Series 1996 Bonds maintained by the Bond Registrar. In addition:

(i) The Trustee shall provide the Initial Credit Provider with a list of the Bondholders entitled to receive principal or interest payments from the Initial Credit Provider under the terms of the Initial Credit Facility and shall make arrangements for the Initial Credit Provider and its Fiscal Agent (A) to mail checks or drafts to Bondholders entitled to receive full or partial interest payments from the Initial Credit Provider, and (B) to pay principal of the Series 1996 Bonds surrendered to the Fiscal Agent by the Bondholders entitled to receive full or partial principal payments from the Initial Credit Provider; and

(ii) The Trustee shall, at the time the Bond Registrar makes the registration books available to the Initial Credit Provider pursuant to clause (i) above, notify Bondholders entitled to receive the payment of principal of or interest on the Series 1996 Bonds from the Initial Credit Provider (A) as to the fact of such entitlement, (B) that the Initial Credit Provider will remit to them all or part of the interest payments coming due subject to the terms of the Initial Credit Facility, (C) that, except as provided in paragraph (b) below, in the event that any Bondholder is entitled to receive full payment of principal from the Initial Credit Provider, such Bondholder must tender his Series 1996 Bond with the instrument of transfer in the form provided on the Series 1996 Bond executed in the name of the Initial Credit Provider, and (D) that, except as provided in paragraph (b) below, in the event that such Bondholder is entitled to receive partial payment of principal from the Initial Credit Provider, such Bondholder must tender his Series 1996 Bond for payment first to the Trustee, which shall note on such Series 1996 Bond the portion of principal paid by the Trustee, and then, with an acceptable form of assignment executed in the name of the Initial Credit Provider, to the Fiscal Agent, which will then pay the unpaid portion of principal to the Bondholder subject to the terms of the Initial Credit Facility.



(b) In the event that the Trustee has notice that any payment of principal of or interest on a Series 1996 Bond has been recovered from a Bondholder by a trustee in bankruptcy in accordance with the final, nonappealable order of a court having competent jurisdiction, the Trustee shall, at the time it provides notice to the Initial Credit Provider, notify all Bondholders that in the event that any Bondholder's payment is so recovered, such Bondholder will be entitled to payment from the Initial Credit Provider to the extent of such recovery, and the Trustee shall furnish to the Initial Credit Provider its records evidencing the payments of principal of and interest on the Series 1996 Bonds which have been made by the Trustee and subsequently recovered from Bondholders, and the dates on which such payments were made.

(c) The Initial Credit Provider shall, to the extent it makes payment of principal of or interest on the Series 1996 Bonds, become subrogated to the rights of the recipients of such payments in accordance with the terms of the Initial Credit Facility and, to evidence such subrogation, (A) in the case of subrogation as to claims for past due interest, the Trustee shall note the Initial Credit Provider's rights as subrogee on the registration books maintained by the Bond Registrar upon receipt from the Initial Credit Provider of proof of the payment of interest thereon to the Bondholders of such Series 1996 Bonds, and (B) in the case of subrogation as to claims for past due principal, the Trustee shall note the Initial Credit Provider's rights as subrogee on the registration books for the Series 1996 Bonds maintained by the Trustee upon receipt of proof of the payment of principal thereof to the Bondholders of such Series 1996 Bonds. Notwithstanding anything in this Indenture to the contrary, the Trustee shall make payment of such past due interest and past due principal directly to the Initial Credit Provider to the extent that the Initial Credit Provider is a subrogee with respect thereto.

#### ARTICLE X

##### EXECUTION OF INSTRUMENTS BY BONDHOLDERS AND PROOF OF OWNERSHIP OF BONDS

**SECTION 10.01. EXECUTION OF INSTRUMENTS BY BONDHOLDERS AND PROOF OF OWNERSHIP OF BONDS.** Any request, direction, consent or other instrument in writing required or permitted by this Indenture to be signed or executed by Bondholders may be in any number of concurrent instruments of similar tenor and may be signed or executed by such Bondholders or their duly authorized attorneys or legal representatives. Proof of the execution of any such instrument and of the ownership of Bonds shall be sufficient for any purpose of this Indenture and shall be conclusive in favor of the Authority and the Trustee with regard to any action taken by it under such instrument if made in the following manner:

(a) The fact and date of the execution by any Person of any such instrument may be proved by the verification of any officer in any jurisdiction who, by the laws thereof, has power to take affidavits within such jurisdiction, to the effect that such instrument was subscribed and sworn to before him, or by an affidavit of a witness to such execution. Where such execution is on behalf of a Person other than an individual such verification or affidavit shall also constitute sufficient proof of the authority of the signer thereof.

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(h) to make such changes as may be necessary to adjust the terms hereof so as to facilitate the issuance of Variable Rate Bonds, Capital Appreciation Bonds, Capital Appreciation and Income Bonds, Convertible Bonds, Put Bonds and such other forms of Bonds as may be marketable from time to time; or

(i) to make such changes as may be necessary to maintain the exclusion of interest on any Series of Bonds from gross income for federal income tax purposes as said exclusion was intended to exist, if at all, at the time of issuance of such Series; or

(j) to make such changes as may evidence the right and interest herein of a Credit Provider, Liquidity Provider or Reserve Facility Provider; or

(k) to make such changes as may be necessary in order to obtain or maintain a rating or ratings on any Series of Bonds from one or more nationally recognized rating agencies; or

(l) to authorize and provide for the issuance of Completion Bonds, Additional Bonds and Refunding Bonds in accordance with the provisions of Sections 2.07, 2.08 and 2.09 and to specify and determine the matters and things referred to in Sections 2.07, 2.08 or 2.09, and any other matters and things relative to such Bonds which are not contrary to or inconsistent with this Indenture as theretofore in effect; or

(m) to amend, modify or rescind any provision in this Indenture at any time prior to the first delivery of such Bonds; or

(n) to make any other change, except those set forth in clauses (a) through (e) of Section 11.02, which is necessary to be made to permit the Authority to proceed with a transaction or activity that, in the written opinion of the Consulting Engineer as filed with the Authority, is in the best interests of the Authority to pursue, if there shall first be delivered and Opinion of Bond Counsel; provided that no Supplemental Indenture shall be entered into for this purpose unless the Credit Provider shall have provided its written consent thereto.

At least thirty days prior to the proposed entry by the Authority and the Trustee into a Supplemental Indenture for any of the purposes of this Section 11.01, the Authority shall cause a notice of such Supplemental Indenture to be mailed, postage prepaid, to the Credit Provider, the Trustee and all Owners of Bonds at their addresses as they appear on the registration books of the Authority maintained by the Bond Registrar and to the Rating Agency. Such notice shall briefly set forth the nature of the proposed Supplemental Indenture and shall state that copies thereof are on file at the offices of the Authority for inspection by all Bondholders. A failure on the part of the Authority to mail the notice required by this Section 11.01 shall not affect the validity of the Supplemental Indenture. The Authority shall provide the Credit Provider with an executed copy of such Supplemental Indenture, together with a transcript of all proceedings of the Authority relating thereto.

**SECTION 11.02. SUPPLEMENTAL INDENTURE WITH BONDHOLDERS' CONSENT.** Subject to the terms and provisions contained in this Section 11.02 and in

(b) Ownership of Bonds should be proved by registration books of the Authority, or the Bond Registrar on behalf of the Authority, maintained as provided in this Indenture.

Nothing contained in this Indenture shall be construed as limiting the Authority or the Trustee to such proof, it being intended that the Authority and the Trustee may accept any other evidence of the matters herein stated which it may deem sufficient. Any request or consent of the Owner of any Bond shall bind every future Owner of the same Bond in respect of anything done by the Authority or the Trustee pursuant to such request or consent.

#### ARTICLE XI

##### SUPPLEMENTS AND AMENDMENTS

**SECTION 11.01. SUPPLEMENTAL INDENTURE WITHOUT BONDHOLDERS' CONSENT.** The Authority and the Trustee, from time to time and at any time, without obtaining consent from Bondholders, may enter into Supplemental Indentures that are not inconsistent with the terms and provisions hereof (which Supplemental Indentures shall thereafter form a part of the Indenture):

(a) to cure any ambiguity or defect or omission or to correct any inconsistent provisions in this Indenture; or

(b) to grant to or confer upon the Bondholders any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Bondholders; or

(c) to add to the conditions, limitations and restrictions on the issuance of Bonds under the provisions of this Indenture other conditions, limitations and restrictions thereafter to be observed; or

(d) to add to the covenants and agreements of the Authority in this Indenture other covenants and agreements thereafter to be observed by the Authority or to surrender any right or power herein reserved to or conferred upon the Authority; or

(e) to permit the issuance of Bonds, the interest on which is intended to be exempt from federal income taxation, in coupon form, if as a condition precedent to the enactment of such supplemental resolution, there shall be delivered to the Authority an Opinion of Bond Counsel; or

(f) to qualify the Bonds or any of the Bonds for registration under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended; or

(g) to qualify this Indenture as an "indenture" under the Trust Indenture Act of 1939, as amended; or

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Section 11.01, and not otherwise, the Credit Provider and the Owners of not less than a majority in aggregate principal amount of the Bonds then Outstanding shall have the right, from time to time, anything contained in this Indenture to the contrary notwithstanding, to consent to and approve any Supplemental Indenture as shall be deemed necessary or desirable by the Authority for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions contained in this Indenture; provided, however, that nothing herein contained shall permit, or be construed as permitting: (a) an extension of the maturity of the principal of or the interest on any Bond issued hereunder; or (b) a reduction in the principal amount of any Bond or the redemption premium or the rate of interest thereon; or (c) the creation of a lien upon or a pledge of Revenues other than the lien and pledge created by this Indenture or permitted to be created by this Indenture; or (d) a preference or priority of any Bond or Bonds over any other Bond or Bonds except as permitted by this Indenture; or (e) a reduction in the aggregate principal amount of the Bonds required for consent to a Supplemental Indenture. Nothing herein contained, however, shall be construed as making necessary the approval by Bondholders of the adoption of any Supplemental Indenture as authorized in Section 11.01.

If at any time the Authority shall determine that it is necessary or desirable to enter into any Supplemental Indenture for any of the purposes of this Section, an Authorized Officer shall cause notice of the proposed Supplemental Indenture to be mailed not less than 15 days prior to the date on which it is proposed that such Supplemental Indenture take effect, postage prepaid, to the Trustee, the Credit Provider and all Owners of Bonds at their addresses as they appear on the registration books and to all Rating Agencies. Such notice shall briefly set forth the nature of the proposed Supplemental Indenture and shall state that copies thereof are on file at the registered office of the Authority for inspection by all Bondholders. The Authority shall not, however, be subject to any liability to any Bondholder by reason of its failure to cause the notice required by this Section 11.02 to be mailed and any such failure shall not affect the validity of such Supplemental Indenture when consented to and approved as provided in this Section 11.02. A subsequent resolution of the Authority may provide that the form and manner of providing notice to Bondholders be in some different form if so determined by the Authority.

Whenever the Authority shall deliver to the Chairman an instrument or instruments in writing purporting to be executed by the Owners of not less than a majority in aggregate principal amount of the Bonds then Outstanding, which instrument or instruments shall refer to the proposed Supplemental Indenture and shall specifically consent to and approve the enactment thereof in substantially the form thereof referred to in such instrument, thereupon, but not otherwise, the Authority may enter into such Supplemental Indenture in substantially such form, without liability or responsibility to any Owner of any Bond, whether or not such Owner shall have consented thereto. Notwithstanding the foregoing, the Authority may enter into the proposed Supplemental Indenture prior to receiving the requisite consents provided the effective date of said Supplemental Indenture, by its terms, is delayed until, and conditioned upon, receipt of the required consents.

If the Owners of not less than a majority in aggregate principal amount of the Bonds Outstanding at the time of the entry into (or effective date of) such Supplemental Indenture shall have consented to and approved such Supplemental Indenture as herein provided, no Owner of any Bond shall have any right to object to the enactment of such Supplemental Indenture, or to

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object to any of the terms and provisions contained therein or the operation thereof, or in any manner to question the propriety of the adoption thereof, or to enjoin or restrain the Authority from adopting the same or from taking any action pursuant to the provisions thereof.

Any consent given by a Bondholder shall be binding with respect to all Bonds owned by said Bondholder on the date consent is given, and shall bind all future Owners of said Bonds, so that said future Owners shall have been deemed to consent to the proposed Supplemental Indenture with the same force and effect as if they had executed a consent as of the effective date thereof.

The consent of the Owners of any Series of Bonds to be issued hereunder shall be deemed given if the underwriters or initial marketing group consent in writing to such Supplemental Indenture and the substance of such Supplemental Indenture is disclosed in the official statement or other offering document pursuant to which such Series of Bonds are offered and sold to the public.

Notwithstanding anything in this Indenture to the contrary, whenever the consent, approval or direction of the Owners of any Bonds shall be required under this Indenture, each Credit Provider, if any, shall be deemed for all purposes under this Indenture to be the Owner of all Bonds with respect to which it shall have provided a Credit Facility, for so long as such Credit Facility remains in full force and effect and shall not have been dishonored or disavowed by such Credit Provider. The Authority shall provide the Credit Provider with an executed copy of such Supplemental Indenture, together with a transcript of all proceedings of the Authority relating thereto.

Upon the entry into any Supplemental Indenture pursuant to the provisions of this Section, this Indenture shall be and be deemed to be modified and amended in accordance therewith, and the respective rights, duties and obligations under this Indenture of the Authority and all Owners of Bonds then Outstanding shall thereafter be determined, exercised and enforced in all respects under the provisions of this Indenture as so modified and amended.

#### SECTION 11.03. SUPPLEMENTAL INDENTURES PART OF INDENTURE.

Any Supplemental Indenture entered in accordance with the provisions of this Indenture shall thereafter form a part of this Indenture, and all of the terms and conditions contained in any such Supplemental Indenture as to any provisions authorized to be contained therein shall be and shall be deemed to be part of the terms and conditions of this Indenture for any and all purposes. In case of the entry into any Supplemental Indenture, express reference may be made thereof in the text of any Bonds issued thereafter, if deemed necessary or desirable by the Authority.

#### SECTION 11.04. OPINION OF BOND COUNSEL REQUIRED.

Notwithstanding anything in this Indenture to the contrary, the Trustee shall have no obligation to enter into any Supplemental Indenture unless it shall have been first provided and Opinion of Bond Counsel with respect thereto.

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Variable Rate Bonds is in excess of the total amount which would have been required to be deposited on such date in respect of such Variable Rate Bonds in order fully to discharge and satisfy such Bonds pursuant to the provisions of this Section, the Authority may use the amount of such excess, free and clear of any trust, lien, security interest, pledge or assignment securing said Variable Rate Bonds or otherwise existing under this Indenture; subject however, to the Authority's obtaining an Opinion of Bond Counsel. Notwithstanding anything in this Section 12.01 or elsewhere in this Indenture to the contrary, so long as S&P shall rate any Variable Rate Bonds, provision for the payment of such Variable Rate Bonds in accordance with this Section 12.01 shall not be deemed to release the lien of this Indenture in favor of such Variable Rate Bonds unless the Authority shall first have provided the Trustee with written evidence from S&P that such provision for payment will not, of itself, cause S&P to reduce or withdraw its then rating on such Variable Rate Bonds.

Notwithstanding any of the provisions of this Indenture to the contrary, Put Bonds may only be fully discharged and satisfied either by paying the principal of and interest on said Bonds as they become due and payable or by depositing moneys or Escrow Securities which shall be sufficient at the time of such deposit to pay when due the maximum amount of principal of and redemption premium, if any, and interest on such Put Bonds which could become payable to the Owners of such Bonds upon the exercise of any options provided to the Owners of such Bonds and the Authority; provided, however, that if, at the time a deposit is made pursuant to this paragraph, the options originally exercisable on the Put Bonds are no longer exercisable, such Bonds shall not be considered Put Bonds for these purposes.

If any portion of the moneys described for the payment of the principal of and redemption premium, if any, and interest on any portion of Bonds is not required for such purpose, the Authority may use the amount of such excess, free and clear of any trust, lien, security interest, pledge or assignment securing said Bonds or otherwise existing under this Indenture.

### ARTICLE XIII

#### CREDIT FACILITIES, LIQUIDITY FACILITIES AND MISCELLANEOUS PROVISIONS RELATED TO VARIABLE RATE BONDS

**SECTION 13.01. CREDIT FACILITY.** The Trustee shall hold and maintain each Credit Facility for the benefit of the Bondholders benefited thereby until such Credit Facility terminates or expires in accordance with its terms. If at any time during the term of a Credit Facility any successor Trustee shall be appointed and qualified under this Indenture, the resigning or removed Trustee shall request that the Credit Provider transfer the Credit Facility to the successor Trustee, to the extent such action is necessary, and shall comply with the applicable provisions of the Credit Facility. If the resigning or removed Trustee fails to make this request, the successor Trustee shall do so before accepting appointment. Upon the termination or expiration of a Credit Facility in accordance with its terms, the Trustee shall promptly surrender the Credit Facility then in effect to the Credit Provider.

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### ARTICLE XII

#### DEFEASANCE

**SECTION 12.01. DEFEASANCE.** If (a) all the Outstanding Bonds shall have been paid as provided below, (b) the Authority shall pay or cause to be paid to the Trustee, Paying Agent and Bond Registrar and any other agents and other parties designated by a Supplemental Indenture, all sums of money due or to become due according to the provisions hereof and such other instruments as may be entered into with such agents and parties and (c) the Authority shall pay or cause to be paid to the Initial Reserve Facility Provider all Policy Costs due or to become due under the provisions of the Series 1996 Debt Service Reserve Fund Policy Agreement, then and in only that case the right, title and interest of the Bondholders hereunder shall cease, terminate and become void, and such Bonds shall cease to be entitled to any lien, benefit or security under this Indenture. In such event, this Indenture shall be discharged and released and amounts held in the Funds, Accounts and Subaccounts created hereunder shall be released to the Authority for its own purposes.

Any Bond shall be deemed to have been paid within the meaning and with the effect expressed in this Section 12.01 when the whole amount of the principal of and interest on such Bond shall have been paid or when: (a) there shall have been deposited with the Paying Agent or other appropriate Escrow Agent solely for the Owner of such Bond and other Bonds being defeased and specifically designated for the purpose of defeasance either moneys, Escrow Securities, or any combination thereof, in an amount which shall be verified by an Accountant as sufficient, with interest earnings thereon, to pay when due the principal of and premium, if any, and interest due and to become due on such Bonds on or prior to the redemption date or maturity date thereof, as the case may be; and (b) in the event such Bond does not mature and is not to be redeemed within the next succeeding sixty days, the Authority shall have notified, as soon as practicable, the Owner of such Bond, in the manner set forth in Article III, stating that the deposit of moneys and/or Escrow Securities required by clause (a) of this paragraph has been made with the Paying Agent or other Escrow Agent solely for the Owner of such Bond and other Bonds being defeased, and that such Bond is deemed to have been paid in accordance with this Section and stating such maturity or redemption date upon which moneys are to be available for the payment of the principal of and premium, if any, and interest on such Bond.

Except as hereinafter provided, neither the moneys nor Escrow Securities deposited with the Paying Agent or other Escrow Agent pursuant to this Section 12.01 nor principal or interest payments on any such obligations shall be withdrawn or used for any purpose other than, and shall be held in trust for, the payment of the principal of and premium, if any, and interest on said Bonds. Moneys and Escrow Securities held by an Escrow Agent may be substituted for other moneys and Escrow Securities to the extent permitted by an Escrow Deposit Agreement.

As to Variable Rate Bonds, the amount required for the interest thereon shall be calculated at the maximum rate permitted by the terms of the provisions which authorized the issuance of such Variable Rate Bonds; provided, however, that if on any date, as a result of such Variable Rate Bonds having borne interest at less than such maximum rate for any period, the total amount of moneys and Escrow Securities on deposit for the payment of interest on such

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**SECTION 13.02. ENFORCEMENT OF CREDIT FACILITY.** (a) The Authority and the Trustee, for the benefit of the Owners of the Bonds benefited thereby, shall diligently enforce and take all reasonable steps, actions and proceedings necessary for the enforcement of all terms, covenants and provisions of each Credit Facility as contemplated herein and therein. The Trustee shall not consent to or permit any amendment or modification of a Credit Facility or any credit or reimbursement agreement pursuant to which a Credit Facility has been issued which would materially adversely affect the rights or interests of the Owners of any of the Bonds without the written consent of the Owners of 100% in aggregate principal amount of such Bonds.

(b) Any provisions in this Indenture requiring notice to or from a Credit Provider or the consent thereof prior to any action by the Trustee or the Authority shall have no force or effect with respect to such Credit Provider (i) following the later of (1) the termination or expiration of such Credit Facility, and (2) the repayment of all amounts owed to such Credit Provider pursuant to the credit or reimbursement agreement pursuant to which such Credit Facility was issued or (ii) following the failure or refusal of such Credit Provider to honor a properly presented and conforming draw under such Credit Facility, except with respect to all rights accruing to the Credit Provider with respect to unreimbursed draws on the Credit Facility.

**SECTION 13.03. ALTERNATE CREDIT FACILITIES.** (a) An Alternate Credit Facility, in substitution for any Credit Facility then in effect, may be provided if the Authority shall give written notice not more than 60 nor less than 30 calendar days prior to the date such Alternate Credit Facility is to take effect (and "Alternate Credit Facility Date") to the Trustee, the Tender Agent, the Remarketing Agent, the Rating Agency, the Liquidity Provider and the Credit Provider stating its election to provide an Alternate Credit Facility. Notwithstanding the foregoing, so long as the Initial Credit Provider shall not be in default of its obligations under the Initial Credit Facility, without the prior written consent of Financial Guaranty Insurance Company, the Authority may not provide an Alternate Credit Facility in place of the Initial Credit Facility unless such Alternate Credit Facility is issued by Financial Guaranty Insurance Company. Any such Alternate Credit Facility must satisfy the requirements of this Indenture for a Credit Facility. Each Alternate Credit Facility Date shall be determined by the Authority in the notice to be provided pursuant to the first sentence of this clause (a). Each Alternate Credit Facility Date shall be a Business Day that is at least five days prior to the termination or expiration of the Credit Facility to be replaced.

(b) Upon the exercise of such option by the Authority, the Trustee shall send to the Bondholders a Notice of Alternate Credit Facility in substantially the form of Exhibit E not later than 20 calendar days prior to the Alternate Credit Facility Date. The Trustee shall not accept such Alternate Credit Facility unless the Trustee shall have received, prior to sending the Notice of Alternate Credit Facility (i) an Opinion of Bond Counsel stating that the delivery of such Alternate Credit Facility to the Trustee is authorized under this Indenture and the Act, complies with the terms hereof and will not adversely affect the exclusion of interest on any of the Bonds from gross income for federal income tax purposes, (ii) a certificate from an Authorized Officer and a written acknowledgment by the Credit Provider stating that all amounts owing to the Credit Provider under the credit or reimbursement agreement pursuant to which the Credit Facility to be replaced has been issued have been paid and that there are no Provider Bonds

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Outstanding, and (iii) written confirmation from the Rating Agency that the rating assigned to the Bonds will not be reduced or withdrawn as a result of such replacement.

**SECTION 13.04. LIQUIDITY FACILITY.** The Trustee shall hold and maintain each Liquidity Facility for the benefit of the Bondholders benefited thereby until such Liquidity Facility terminates or expires in accordance with its terms. If at any time during the term of a Liquidity Facility any successor Trustee shall be appointed and qualified under this Indenture, the resigning or removed Trustee shall request that the Liquidity Provider transfer the Liquidity Facility to the successor Trustee, to the extent such action is necessary, and shall comply with the applicable provisions of the Liquidity Facility. If the resigning or removed Trustee fails to make this request, the successor Trustee shall do so before accepting appointment. Upon the termination or expiration of a Liquidity Facility in accordance with its terms, the Trustee shall promptly surrender the Liquidity Facility then in effect to the Liquidity Provider. If a Liquidity Facility shall be about to expire or terminate in accordance with its terms, without being extended or replaced by an Alternate Liquidity Facility, then the Authority and the Remarketing Agent shall use their best efforts to convert the Series 1996 Bonds to the Fixed Rate not later than 90 days prior to such expiration or termination, and, in the event of such expiration or termination, as soon as possible thereafter.

**SECTION 13.05. ENFORCEMENT OF LIQUIDITY FACILITY.** (a) The Authority and the Trustee, for the benefit of the Owners of the Bonds benefited thereby, shall diligently enforce and take all reasonable steps, actions and proceedings necessary for the enforcement of all terms, covenants and provisions of each Liquidity Facility as contemplated herein and therein. The Trustee shall not consent to or permit any amendment or modification of a Liquidity Facility or any credit or reimbursement agreement pursuant to which a Liquidity Facility has been issued which would materially adversely affect the rights or interests of the Owners of any of the Bonds without the written consent of the Owners of 100% in aggregate principal amount of such Bonds.

(b) Any provisions in this Indenture requiring notice to or from a Liquidity Provider or the consent thereof prior to any action by the Trustee or the Authority shall have no force or effect with respect to such Liquidity Provider (i) following the later of (1) the termination or expiration of such Liquidity Facility, and (2) the repayment of all amounts owed to such Liquidity Provider pursuant to the credit or reimbursement agreement pursuant to which such Liquidity Facility was issued or (ii) following the failure or refusal of such Liquidity Provider to honor a properly presented and conforming draw under such Liquidity Facility, except with respect to all rights accruing to the Liquidity Provider with respect to unreimbursed draws on the Liquidity Facility.

**SECTION 13.06. ALTERNATE LIQUIDITY FACILITIES.** (a) With the prior written consent of the Credit Provider, an Alternate Liquidity Facility, in substitution for any Liquidity Facility then in effect, may be provided if the Authority shall give written notice not more than 60 nor less than 30 calendar days prior to the date such Alternate Liquidity Facility is to take effect (and "Alternate Liquidity Facility Date") to the Trustee, the Tender Agent, the Remarketing Agent, the Rating Agency, the Credit Provider and the Liquidity Provider stating its election to provide an Alternate Liquidity Facility. Any such Alternate Liquidity Facility must

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**SECTION 13.09. TENDER AGENT.** (a) The Trustee shall be the initial Tender Agent with respect to the Series 1996 Bonds. The Trustee hereby agrees to carry out its responsibilities as Tender Agent set forth in this Indenture. Any other Tender Agent that is not also the Trustee shall signify its acceptance of the duties and obligations imposed upon it hereunder by a written instrument of acceptance delivered to the Authority and the Trustee, under which the Tender Agent shall agree to particularly:

(i) hold all Bonds delivered to it for purchase hereunder as agent and bailee of, and in escrow for the benefit of, the respective Owners which have so delivered such Bonds until moneys representing the Purchase Price of such Bonds shall have been delivered to or for the account of or to the order of such Owners; and

(ii) keep such books and records as shall be consistent with prudent industry practice, and make such books and records available for inspection by the other parties.

The parties hereto shall each cooperate to cause the necessary arrangements to be made and to be thereafter continued whereby funds from the sources specified herein will be made available for the purchase of Bonds presented at the designated office of the Tender Agent, and to otherwise enable the Tender Agent to carry out its duties under this Indenture.

The Tender Agent, the Trustee and the Remarketing Agent shall cooperate to the extent necessary to permit the preparation, execution, issuance, authentication and delivery by the Tender Agent of replacement Bonds in connection with the tender and remarketing of Bonds under this Indenture.

The Authority and the Trustee acknowledge that, in carrying out its responsibilities hereunder, the Tender Agent shall be acting solely for the benefit of and as agent for the Owners from time to time of the Bonds. No delivery of the Bonds to the Tender Agent or any agent of the Tender Agent or purchase of Bonds by the Tender Agent shall constitute a redemption of the Bonds or any extinguishment of the debt evidenced thereby.

(b) The Tender Agent shall be a member of the National Association of Securities Dealers, Inc., a bank with trust powers, a trust company or a national banking association with trust powers and shall meet such capitalization and/or credit requirements as the Authority may determine from time to time, shall be appointed by the Authority and shall be authorized by law to perform all the duties imposed upon it by this Indenture. Any such bank or trust company shall be organized and existing under the laws of a state of the United States. The Tender Agent may resign and be discharged of the duties and obligation created by this Indenture by giving at least sixty (60) days' notice by mail to the Trustee, the Authority, the Remarketing Agent, the Credit Provider and the Liquidity Provider, provided, however, that such resignation shall not take effect unless and until a successor Tender Agent shall be appointed by the Authority. The Authority shall use its best efforts to appoint a successor Tender Agent during such sixty (60) day period and in the event a successor Tender Agent has not taken office prior to the expiration of such sixty (60) day period, the Tender Agent may petition a court of applicable jurisdiction to appoint a successor Tender Agent. The Tender Agent may be removed at any time with or without cause by an instrument signed by an Authorized Officer and filed with the Credit

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satisfy the requirements of this Indenture for a Liquidity Facility. Each Alternate Liquidity Facility Date shall be determined by the Authority in the notice to be provided pursuant to the first sentence of this clause (a). Each Alternate Liquidity Facility Date shall be a Business Day that is at least five days prior to the termination or expiration of the Liquidity Facility to be replaced.

(b) Upon the exercise of such option by the Authority, the Trustee shall send to the Bondholders a Notice of Alternate Liquidity Facility in substantially the form of Exhibit E not later than 20 calendar days prior to the Alternate Liquidity Facility Date. The Trustee shall not accept such Alternate Liquidity Facility unless the Trustee shall have received, prior to sending the Notice of Alternate Liquidity Facility (i) an Opinion of Bond Counsel stating that the delivery of such Alternate Liquidity Facility to the Trustee is authorized under this Indenture and the Act, complies with the terms hereof and will not adversely affect the exclusion of interest on any of the Bonds from gross income for federal income tax purposes, (ii) a certificate from an Authorized Officer and a written acknowledgment by the Liquidity Provider stating that all amounts owing to the Liquidity Provider under the credit or reimbursement agreement pursuant to which the Liquidity Facility to be replaced has been issued have been paid and that there are no Provider Bonds Outstanding, and (iii) written confirmation from the Rating Agency that the rating assigned to the Bonds will not be reduced or withdrawn as a result of such replacement.

**SECTION 13.07. REMARKETING AGENT.** The initial Remarketing Agent for the Series 1996 Bonds shall be PaineWebber Incorporated. The Authority may appoint a successor Remarketing Agent for the Series 1996 Bonds and may appoint Remarketing Agents for other Series of Bonds and their successors in compliance with the conditions set forth in Section 13.08. The Remarketing Agent shall designate to the Trustee its principal office and signify its acceptance of the duties and obligations imposed upon it hereunder by entering into a Remarketing Agreement with the Authority under which the Remarketing Agent shall agree to keep such books and records as shall be consistent with prudent industry practice and to make such books and records available for inspection by the Authority, the Trustee and the Tender Agent at all reasonable times.

**SECTION 13.08. QUALIFICATIONS OF REMARKETING AGENT.** Each Remarketing Agent shall be a member of the National Association of Securities Dealers, Inc., a national banking association or a commercial banking corporation and shall meet such capitalization and/or credit requirements as the Authority may determine from time to time, shall be appointed by the Authority and shall be authorized by law to perform all the duties imposed upon it by this Indenture. The Remarketing Agent may at any time resign and be discharged of the duties and obligations created by this Indenture by giving at least 60 days' written notice to the Authority, the Tender Agent, the Trustee, the Credit Provider and the Liquidity Provider. The Remarketing Agent may be removed at any time, with or without cause by the Authority, upon at least 30 days' written notice to the Remarketing Agent, by an instrument signed by Authorized Officer, filed with the Trustee, the Credit Provider, the Liquidity Provider, the Tender Agent and the Remarketing Agent. Notwithstanding the foregoing, no removal or resignation shall take effect until the Authority has appointed a successor Remarketing Agent, with the prior written approval of the Credit Provider and the Liquidity Provider, and such successor Remarketing Agent has accepted such appointment.

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Provider, the Liquidity Provider, the Tender Agent, the Remarketing Agent and the Trustee; provided, however, that such removal shall not take effect unless and until a successor Tender Agent shall be appointed by the Authority. In the event of the resignation or removal of the Tender Agent, the Tender Agent shall deliver any moneys and Bonds held by it to its successor, and if there be no successor, to the Trustee.

**SECTION 13.10. NOTICE TO RATING AGENCY.** The Trustee shall notify the Rating Agency, the Credit Provider and the Liquidity Provider as soon as practicable (a) after the Trustee becomes aware of (i) any expiration, termination or renewal of a Credit Facility or a Liquidity Facility, (ii) any change in a Credit Facility or Liquidity Facility or this Indenture, or (iii) the failure of a Credit Provider or Liquidity Provider to reinstate the interest portion of a Credit Facility or Liquidity Facility within the time allotted for such reinstatement to occur, or (b) if (i) the Trustee or the Tender Agent resigns or is removed or a new Trustee or Tender Agent is appointed, (ii) the Remarketing Agent resigns or is removed or a new Remarketing Agent is appointed, (iii) an Alternate Credit Facility or an Alternate Liquidity Facility is provided, (iv) there is a mandatory tender for purchase for a Series of Bonds in whole, (v) there is a call for the redemption of a Series of Bonds in whole, (vi) there is a change in the interest mode or otherwise in the method for determination of the interest payable on a Series of Bonds pursuant to Section 2.06 or otherwise, (vii) all of the Bonds of a Series are defeased pursuant to Article XII, or (viii) the Authority issues any Series of Bonds other than the Series 1996 Bonds.

## ARTICLE XIV

### MISCELLANEOUS PROVISIONS

**SECTION 14.01. EFFECT OF COVENANTS.** All covenants, stipulations, obligations and agreements of the Authority contained in this Indenture shall be deemed to be covenants, stipulations, obligations and agreements of the Authority to the full extent authorized or permitted by law, and all such covenants, stipulations, obligations and agreements shall bind or inure to the benefit of the successor or successors thereof from time to time and any officer, board, body or commission to whom or to which any power or duty affecting such covenants, stipulations, obligations and agreements shall be transferred by or in accordance with law.

Except as otherwise provided in this Indenture, all rights, powers and privileges conferred and duties and liabilities imposed upon the Authority by the provisions of this Indenture shall be exercised or performed by the Board of the Authority or by such other officers, board, body or commission as may be required by law to exercise such powers or to perform such duties.

No covenants, stipulation, obligation or agreement herein contained shall be deemed to be a covenant, stipulation, obligation or agreement of any member, agent or employee of the Authority in his individual capacity, and neither the Board of the Authority nor any official executing the Bonds shall be liable personally on the Bonds or be subject to any Personal liability or accountability by reason of the issuance thereof.

**SECTION 14.02. MANNER OF GIVING NOTICE.** Except as otherwise provided in this Indenture, any notice, demand, direction, request or other instrument authorized or

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required by this Indenture to be given to or filed with the Authority shall be deemed to have been sufficiently given or filed for all purposes of this Indenture if and when sent by registered mail, return receipt requested to the Authority at Dade County Expressway Authority 111 N.W. First Street, Suite 2740, Miami, Florida 33128, Attention: Executive Director. Except as otherwise provided in this Indenture, any notice, demand, direction, request or other instrument authorized or required by this Indenture to be given to or filed with the Trustee shall be deemed to have been sufficiently given or filed for all purposes of this Indenture if and when sent by registered mail, return receipt requested to the Trustee at The Bank of New York, c/o The Bank of New York Trust Company of Florida, N.A., 10161 Centurion Parkway, Jacksonville, Florida 32256, Attention: Corporate Trust Department. Except as otherwise provided in this Indenture, any notice, demand, direction, request or other instrument authorized or required by this Indenture to be given to or filed with the Tender Agent shall be deemed to have been sufficiently given or filed for all purposes of this Indenture if and when sent by registered mail, return receipt requested to the Tender Agent at The Bank of New York, 101 Barclay Street, New York, New York 10286. Except as otherwise provided in this Indenture, any notice, demand, direction, request or other instrument authorized or required by this Indenture to be given to or filed with the Remarketing Agent for the Series 1996 Bonds shall be deemed to have been sufficiently given or filed for all purposes of this Indenture if and when sent by registered mail, return receipt requested to the Remarketing Agent for the Series 1996 Bonds at PaineWebber Incorporated, 1285 Avenue of the Americas, New York, New York 10019, Attention: Short-Term Desk. Except as otherwise provided in this Indenture, any notice, demand, direction, request or other instrument authorized or required by this Indenture to be given to or filed with the Initial Credit Provider shall be deemed to have been sufficiently given or filed for all purposes of this Indenture if and when sent by registered mail, return receipt requested to the Initial Credit Provider at Financial Guaranty Insurance Company, 115 Broadway, New York, New York 10006, Attention: Senior Counsel - Public Finance. Except as otherwise provided in this Indenture, any notice, demand, direction, request or other instrument authorized or required by this Indenture to be given to or filed with the Fiscal Agent shall be deemed to have been sufficiently given or filed for all purposes of this Indenture if and when sent by registered mail, return receipt requested to the Fiscal Agent at State Street Bank and Trust Company, N.A., 61 Broadway, New York, New York 10006, Attention: Corporate Trust Department. Except as otherwise provided in this Indenture, any notice, demand, direction, request or other instrument authorized or required by this Indenture to be given to or filed with the Initial Liquidity Provider for the Series 1996 Bonds shall be deemed to have been sufficiently given or filed for all purposes of this Indenture if and when sent by registered mail, return receipt requested to the Initial Liquidity Provider for the Series 1996 Bonds at FGI Securities Purchase, Inc., 115 Broadway, New York, New York 10006, Attention: President. Except as otherwise provided in this Indenture, any notice, demand, direction, request or other instrument authorized or required by this Indenture to be given to or filed with Fitch for the Series 1996 Bonds shall be deemed to have been sufficiently given or filed for all purposes of this Indenture if and when sent by registered mail, return receipt requested to Fitch Investors Service, L.P., One State Street Plaza, New York, New York 10004, Attention: Public Finance. Except as otherwise provided in this Indenture, any notice, demand, direction, request or other instrument authorized or required by this Indenture to be given to or filed with Moody's for the Series 1996 Bonds shall be deemed to have been sufficiently given or filed for all purposes of this Indenture if and when sent by

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**SECTION 14.07. EFFECT OF PARTIAL INVALIDITY.** In case any one or more of the provisions of this Indenture or of any Bonds shall for any reason be held to be illegal or invalid, such illegality or invalidity shall not affect any other provision of this Indenture or of the Bonds, but this Indenture and the Bonds shall be construed and enforced as if such illegal or invalid provision had not been contained therein. The Bonds are issued and this Indenture is entered into with the intent that the laws of the State shall govern their construction.

**SECTION 14.08. SALE OF BONDS.** The Bonds shall be issued and sold at one time or from time to time and at such price or prices consistent with law and the requirements of this Indenture as the Authority shall hereafter determine by one or more Supplemental Indentures.

**SECTION 14.09. AUTHORITY TO PURCHASE OR DEAL IN BONDS.** Any bank or trust company acting as Trustee, Bond Registrar or Paying Agent under this Indenture, and its directors, officers, employees or agents may in good faith buy, sell, own, hold and deal in any of the Bonds and may join in any action which any Bondholder may be entitled to take with like effect as if such bank or trust company were not the Trustee, Bond Registrar or Paying Agent under this Indenture.

**SECTION 14.10. CAPITAL APPRECIATION BONDS AND CAPITAL APPRECIATION AND INCOME BONDS.** For the purposes of: (a) receiving payment of the redemption price if a Capital Appreciation Bond is redeemed prior to maturity; or (b) receiving payment of a Capital Appreciation Bond if the principal of all Bonds becomes due and payable under the provisions of this Indenture; or (c) computing the amount of Bonds held by the Owner of a Capital Appreciation Bond in giving to the Authority or the Trustee or receiver appointed to represent the Bondholders any notice, consent, request or demand pursuant to this Indenture for any purpose whatsoever, the principal amount of a Capital Appreciation Bond shall be deemed to be its Accreted Value. For all of the foregoing purposes as they relate to Capital Appreciation and Income Bonds, the principal amount of a Capital Appreciation and Income Bond, on or prior to its Interest Commencement Date, shall be its Appreciated Value.

**SECTION 14.11. PAYMENTS DUE ON DAYS THAT ARE NOT BUSINESS DAYS.** In any case where the date of maturity of interest on or principal of the Bonds or the date fixed for redemption of Bonds shall not be Business Day, then payment of such interest or principal and any redemption premium need not be mailed by the Paying Agent on such date but may be mailed on the next succeeding Business Day with the same force and effect as if mailed on the date of maturity or the date fixed for redemption, and no interest shall accrue for the period after such date of maturity.

**SECTION 14.12. SUSPENSION OF PUBLICATION OR MAIL.** If, because of the temporary or permanent suspension of publication of any newspaper or financial journal, the suspension of delivery of registered mail or, for any other reason, the Authority shall be unable to publish in a newspaper or financial journal or mail by registered mail any notice required to be published or mailed by the provisions of this Indenture, the Authority shall give such notice in such other manner as in the judgment of the Authority shall most effectively approximate such publication or mailing thereof, and the giving of such notice in such manner shall for all

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registered mail, return receipt requested to Moody's Investors Service, Inc., 99 Church Street, New York, New York 10007-2796, Attention: Public Finance Department. Except as otherwise provided in this Indenture, any notice, demand, direction, request or other instrument authorized or required by this Indenture to be given to or filed with S&P for the Series 1996 Bonds shall be deemed to have been sufficiently given or filed for all purposes of this Indenture if and when sent by registered mail, return receipt requested to Standard & Poor's Ratings Group, 25 Broadway, New York, New York 10004, Attention: Public Finance Ratings.

All documents received by the Authority or the Trustee under the provisions of this Indenture shall be retained in its possession, subject at all reasonable times to the inspection of any Bondholder, and the agents and representatives thereof.

**SECTION 14.03. SUCCESSORSHIP OF AUTHORITY.** In the event that the offices of any officer of the Authority mentioned in this Indenture shall be abolished or any two or more of such offices shall be merged or consolidated, or in the event of a vacancy in any such office by reason of death, resignation, removal from office or otherwise, or in the event any such officer shall become incapable of performing the duties of his office by reason of sickness, absence from the Authority or otherwise, all powers conferred and all obligations and duties imposed upon such officer shall be performed by the officer succeeding to the principal functions thereof or by the officer upon whom such powers, obligations and duties shall be imposed by law. The Authority may be dissolved or terminated in accordance with the Act and other applicable law only pursuant to a plan of transfer in connection with which an appropriate successor unit of government agrees to accept and assume all obligations of the Authority hereunder, including, specifically, the obligation to collect and enforce the Revenues and to pay the principal and interest on the Bonds from the Revenues and the moneys on deposit in the Funds, Accounts and Subaccounts.

**SECTION 14.04. FURTHER ACTS.** The officers and agents of the Authority are hereby authorized and directed to do all the acts and things required of them by the Bonds and this Indenture, for the full, punctual and complete performance of all of the terms, covenants, provisions and agreements contained in the Bonds and this Indenture.

**SECTION 14.05. HEADINGS NOT PART OF INDENTURE.** Any headings preceding the texts of the several Articles and Sections hereof and any table of contents, marginal notes or footnotes appended to copies hereof shall be solely for convenience of reference, and shall not constitute a part of this Indenture, nor shall they affect its meaning, construction or effect.

**SECTION 14.06. AUTHORITY, FIDUCIARY AND BONDHOLDERS ALONE HAVE RIGHTS UNDER INDENTURE.** Except as herein otherwise expressly provided, nothing in this Indenture, expressed or implied, is intended or shall be construed to confer upon any Person, firm or corporation, other than the Authority, the Fiduciary and the Owners of the Bonds, any right, remedy or claim, legal or equitable, under or by reason of this Indenture or any provision hereof, this Indenture and all its provisions being intended to be and being for the sole and exclusive benefit of the Authority, the Fiduciaries and the Owners from time to time of the Bonds.

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purposes of this Indenture be deemed to be in compliance with the requirement for the publication or mailing thereof.

Except as otherwise provided herein, for all purposes of this Indenture, anything required to be mailed shall be deemed mailed upon the deposit of the item with the U.S. Postal Service, by registered mail, return receipt requested and addressed to the addressee as set forth in Section 13.02 or otherwise provided in this Indenture.

**SECTION 14.13. EFFECTIVE.** This Indenture shall take effect as of its date.

In witness whereof, the Authority has caused this Indenture to be signed in its name and on its behalf by the Chairman or Vice Chairman, and its seal to be hereunto affixed and attested by its Secretary, thereunto duly authorized, and to evidence its acceptance of the trusts hereby created, the Trustee has caused this Indenture to be signed in its name and on its behalf by one of its duly authorized officers, and its official seal to be hereunto affixed.

Signatures:

MIAMI-DADE COUNTY EXPRESSWAY  
AUTHORITY

By: \_\_\_\_\_  
(Vice) Chairman

(Seal)

Attest:

\_\_\_\_\_  
Secretary

THE BANK OF NEW YORK, as Trustee

By: The Bank of New York Trust Company of  
Florida, N.A., as agent

By: \_\_\_\_\_  
Authorized Officer

(Seal)

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## EXHIBIT D

## REQUISITION FORM—CONSTRUCTION FUND

\$ \_\_\_\_\_ Dade County Expressway Authority (Florida) Toll System  
Revenue Bonds, Series \_\_\_\_\_

To: \_\_\_\_\_, as Trustee

This Requisition is made pursuant to Section 4.02 of the Trust Indenture dated as of November 15, 1996 from Dade County Expressway Authority to you as Trustee to pay Costs of the Series \_\_\_\_\_ Project.

The Trustee is hereby directed to pay sums out of the [Series \_\_\_\_\_ Account of the] Construction Fund as follows:

| Name & Address of Payee | Amount | Purpose of Payment |
|-------------------------|--------|--------------------|
|-------------------------|--------|--------------------|

The undersigned Authorized Officer of the Authority hereby certifies that each obligation, item of cost or expense mentioned in this Requisition: (a) has been properly incurred; (b) is a proper charge against the [Series \_\_\_\_\_ Account of the] Construction Fund; and (c) has not been the basis of any previous disbursement, payment or reimbursement to the Authority.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Authorized Officer

\_\_\_\_\_  
Consulting Engineer

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## EXHIBIT E

## NOTICE OF ALTERNATE CREDIT OR LIQUIDITY FACILITY

## NOTICE TO BONDHOLDERS

This notice is being sent pursuant to the provisions of the Trust Indenture dated as of November 15, 1996 (the "Indenture") from Dade County Expressway Authority (the "Authority") to The Bank of New York, as Trustee. Capitalized terms used in this notice shall have the same meanings as in the Indenture.

You are hereby notified as follows:

1. An Alternate [Credit/Liquidity] Facility issued by \_\_\_\_\_ and relating to the Authority's Dade County Expressway Authority (Florida) Toll System Revenue Bonds, Series 1996 (the "Bonds"), will become effective on \_\_\_\_\_ (the "Alternate [Credit/Liquidity] Facility Date"). Your Bond will be subject to mandatory tender for purchase on \_\_\_\_\_ at a price of 100% of the principal amount thereof, plus interest accrued thereon to such date.

2. Payment of the purchase price for your Bond will be made on the Alternate [Credit/Liquidity] Facility Date upon presentation and surrender at the address of the Tender Agent set forth below prior to 11:30 a.m., Eastern Time on the Alternate [Credit/Liquidity] Facility Date, of such Bond, duly endorsed in blank for transfer (with all signatures guaranteed by an eligible guarantor institution as defined by SEC Rule 17Ad-15 (17 CFR 240.17Ad-15):

The Bank of New York  
101 Barclay Street  
New York, New York 10286

3. In addition, you are further notified that interest will no longer accrue to you on your Bond on and after the Alternate [Credit/Liquidity] Facility Date and, other than the right to receive payment of the purchase price for your Bond, you shall then cease to have further rights under the Indenture.

Dated: \_\_\_\_\_

By \_\_\_\_\_  
Title \_\_\_\_\_

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SIXTH SUPPLEMENTAL TRUST INDENTURE

This Sixth Supplemental Trust Indenture is dated as of August 1, 2010 (this “Sixth Supplemental Indenture”) and further supplements the Amended and Restated Trust Indenture dated as of June 15, 2002, as previously amended and supplemented (the “Original Indenture” and, as further supplemented by this Sixth Supplemental Indenture, and as the same may be further amended or supplemented from time to time, the “Indenture”). The Original Indenture and this Sixth Supplemental Indenture are each from Miami-Dade County Expressway Authority (together with its successors and assigns as permitted under the Indenture, the “Authority”), a body politic and corporate, a public instrumentality and an agency of the State of Florida (the “State”) existing under the Florida Expressway Authority Act (Part I of Chapter 348, Florida Statutes, as amended) (together with any successor provisions of law, the “Act”), to The Bank of New York Mellon Trust Company, N.A. (as successor in trust to The Bank of New York), a national banking association organized and existing under the laws of the United States of America, as trustee, as trustee (together with any successor permitted under the Indenture, the “Trustee”). The Original Indenture amended and restated the Trust Indenture dated as of November 15, 1996 (the “Prior Indenture”) from the Authority to the Trustee.

WITNESSETH:

WHEREAS, the Authority is a body politic and corporate, a public instrumentality and an agency of the State established under and pursuant to the Act and Ordinance No. 94-215 duly adopted on December 13, 1994 by the Board of County Commissioners of Miami-Dade County, as amended (the “Ordinance”); and

WHEREAS, the Act sets forth the Authority’s purposes and powers, which include, among others, the powers to: (1) acquire, hold, construct, improve, maintain, operate, own, and lease the expressways located in Miami-Dade County and identified more particularly in Exhibit A to the Original Indenture (together with certain non-roadway assets identified more particularly on Exhibit B to the Original Indenture and together with any Improvements, as defined in the Original Indenture, including additional expressways undertaken by the Authority in accordance with the Act, the “System”); (2) fix, alter, change, establish, and collect tolls, rates, fees, rentals, and other charges for the services and facilities of the System; (3) utilize surplus revenues to finance or refinance the planning, design, acquisition, construction, maintenance or improvement of a public transportation facility or transportation facilities located in Miami-Dade County, Florida or any programs or projects that will improve the levels of service on the System; and (4) borrow money, make and issue negotiable notes, bonds, refunding bonds and other evidence of indebtedness to finance the System; and

WHEREAS, on December 10, 1996, the Authority issued and secured under the Prior Indenture its \$80,000,000 aggregate principal amount of Miami-Dade County Expressway Authority (Florida) Toll System Revenue Bonds, Series 1996 (Taxable) (the “Series 1996 Bonds”), and applied the proceeds of the Series 1996 Bonds to acquire operational and financial control of the System, as then constituted, in perpetuity; and

WHEREAS, on November 1, 1999, the Authority issued and secured under the Prior Indenture its \$10,000,000 aggregate principal amount of Miami-Dade County Expressway Authority (Florida) Toll System Revenue Bond, Series 1999 (the “Series 1999 Bond”), and applied the proceeds of the Series 1999 Bond for the primary purpose of paying a portion of the Cost of the Authority’s Five Year Work Program; and

WHEREAS, on February 9, 2000, the Authority issued and secured under the Prior Indenture its \$150,000,000 aggregate principal amount of Miami-Dade County Expressway Authority (Florida) Toll

System Revenue Bonds, Series 2000 (the “Series 2000 Bonds”), and applied the proceeds of the Series 2000 Bonds for the primary purpose of paying a portion of the Cost of the Authority’s Five Year Work Program; and

WHEREAS, on July 11, 2001, the Authority issued and secured under the Prior Indenture its \$89,345,000 aggregate principal amount of Miami-Dade County Expressway Authority (Florida) Toll System Refunding Revenue Bonds, Series 2001A (the “Series 2001A Bonds”), and applied the proceeds of the Series 2001A Bonds for the primary purpose of refunding a portion of the Outstanding Series 2000 Bonds; and

WHEREAS, on August 30, 2002, the Authority issued and secured under the Original Indenture its \$34,650,000 aggregate principal amount of Miami-Dade County Expressway Authority (Florida) Toll System Refunding Revenue Bonds, Series 2002 (the “Series 2002 Bonds”), and applied the proceeds of the Series 2002 Bonds for the primary purpose of refunding a portion of the Outstanding Series 2000 Bonds; and

WHEREAS, on July 29, 2004, the Authority issued and secured under the Original Indenture its \$68,200,000 aggregate principal amount of Miami-Dade County Expressway Authority Toll System Refunding Revenue Bonds, Series 2004A (Auction Rate Securities) (the “Series 2004A Bonds”) and \$175,000,000 aggregate principal amount of Miami-Dade County Expressway Authority Toll System Revenue Bonds, Series 2004B (the “Series 2004B Bonds” and, together with the Series 2004A Bonds, the “Series 2004 Bonds”), and applied the proceeds of the Series 2004 Bonds for the primary purposes of refunding all of the Outstanding Series 1996 Bonds and paying a portion of the Cost of the Authority’s Five Year Work Program; and

WHEREAS, on March 1, 2005, the Authority issued and secured under the Original Indenture its \$241,400,000 aggregate principal amount of Miami-Dade County Expressway Authority Toll System Revenue Bonds, Series 2005A through Series 2005E (Auction Rate Securities)(the “Series 2005 Bonds”), and applied the proceeds of the Series 2005 Bonds for the primary purpose of paying a portion of the Cost of the Authority’s Five Year Work Program; and

WHEREAS, on September 21, 2006, the Authority issued and secured under the Original Indenture its \$304,335,000 aggregate principal amount of Miami-Dade County Expressway Authority Toll System Revenue Bonds, Series 2006 (the “Series 2006 Bonds”), and applied the proceeds of the Series 2006 Bonds for the primary purpose of paying a portion of the Cost of the Authority’s Five Year Work Program; and

WHEREAS, by its Resolution No. 10-01, adopted by the Authority on June 29, 2010 (the “Bond Resolution”), the Authority authorized the issuance and delivery of not more than \$425,000,000 in aggregate principal amount of its Miami-Dade County Expressway Authority Toll System Revenue Bonds, Series 2010 (the “Series 2010 Bonds”), as Additional Bonds under the Indenture, for the purposes of providing funds to (A) pay a portion of the Cost of certain Improvements to the MDX Expressway System included within the Five Year Work Program of the Authority as in effect from time to time, including capitalized interest, if any (the “Series 2010 Project”); (B) refund and redeem the Outstanding Series 2000 Bonds, Series 2004A Bonds and up to one-third of the aggregate principal amount of the Outstanding Series 2005 Bonds, upon satisfaction of the conditions for such refundings and redemptions set forth in the Bond Resolution; (C) fund amounts due to the swap counterparty in connection with the termination of the interest rate swap presently associated with the Outstanding Series 2004A Bonds and amounts due to the swap counterparty or counterparties in connection with the termination of the portion of the interest rate swaps corresponding to such Outstanding Series 2005 Bonds to be refunded and redeemed, upon satisfaction of the conditions for termination of such interest rate swaps set forth in the

Resolution; (D) fund the increase in the Debt Service Reserve Fund Requirement resulting from the issuance of the Series 2010 Bonds, and (E) pay certain costs associated with the issuance of the Series 2010 Bonds, including the premium for a municipal bond insurance policy relating to the Series 2010 Bonds, if deemed to be in the best interest of the Authority based on the recommendations of First Southwest Company, financial advisor to the Authority; and

**WHEREAS**, the Authority has determined to issue the Series 2010 Bonds in a combined aggregate principal amount of \$412,710,000 to consist of two Series, namely (A) \$395,590,000 in aggregate principal amount of Miami-Dade County Expressway Authority Toll System Revenue and Refunding Revenue Bonds, Series 2010A (the "Series 2010A Bonds"), and (B) \$17,120,000 in aggregate principal amount of Miami-Dade County Expressway Authority Toll System Refunding Revenue Bonds, Series 2010B (the "Series 2010B Bonds"); and

**WHEREAS**, the Series 2010 Bonds are to be secured by the Trust Estate on a parity with the lien thereon in favor of any and all other series of Bonds (as defined in the Original Indenture) now Outstanding or that may be issued from time to time hereafter; and

**WHEREAS**, the payment of principal of and interest on the Insured Series 2010 Bonds (hereinafter defined) when due will be insured by the Series 2010 Credit Facility (hereinafter defined); and

**WHEREAS**, all things necessary to make the Series 2010 Bonds, when authenticated by the Trustee and issued as in the Indenture provided, the valid, binding and legal obligations of the Authority according to the import thereof, and to constitute the Indenture a valid pledge of and grant of a lien on the Trust Estate, subject to the provisions of the Indenture, for the purpose of providing for the operation and maintenance of the System and to secure the payment of the principal of, premium, if any, and interest on the Series 2010 Bonds have been done and performed, in due form and time, as required by law; and

**WHEREAS**, the execution and delivery of this Sixth Supplemental Indenture and the execution and issuance of the Series 2010 Bonds, subject to the terms hereof, have in all respects been duly authorized by the Authority.

**NOW, THEREFORE, THE INDENTURE WITNESSETH:**

**GRANTING CLAUSES**

That in order to provide for the acquisition, construction, installation, equipping, operation and maintenance of the System and to secure the payment of the principal of, premium, if any, and interest on all Bonds issued and to be issued under the Indenture, according to the import thereof, and to reimburse any Credit Provider and Liquidity Provider and any Reserve Facility Provider for amounts owed to them under any Credit Facility, Liquidity Facility or Reserve Facility, respectively, but subject to the limitations set forth herein, and the performance and observance of each and every covenant and condition contained herein and in the Bonds, and for and in consideration of the premises and of the acceptance by the Trustee of the trusts hereby created, and of the purchase and acceptance of the Bonds by the respective Owners thereof, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, and for the purpose of fixing and declaring the terms and conditions upon which the Bonds shall be issued, authenticated, delivered, secured and accepted by all Persons who shall from time to time be or become Owners thereof, the Authority does hereby ratify and confirm its prior assignment, pledge and grant of a lien upon and a security interest in all of its right, title and interest in and to the Trust Estate to the Trustee and its successors in trust and assigns, to the extent provided in the Original Indenture, as supplemented by this Sixth Supplemental Indenture.

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following definitions to be equally applicable to both the singular and plural forms of any of the terms defined herein:

"Insured Series 2010 Bonds" shall mean the Series 2010 Bonds, except for the Series 2010 Bonds maturing on July 1, 2040.

"Refunding Portion of the Series 2010A Bonds" shall mean the \$57,105,000 of the Series 2010A Bonds issued as Serial Bonds.

"Series 2000 Escrow Agent" shall mean The Bank of New York Mellon Trust Company, N.A., as Escrow Agent under the Series 2000 Escrow Deposit Agreement, and its successors and assigns in such capacity.

"Series 2000 Escrow Deposit Agreement" shall mean the Series 2000 Escrow Deposit Trust Agreement dated as of August 1, 2010 between the Authority and the Escrow Agent.

"Series 2004A Escrow Agent" shall mean The Bank of New York Mellon Trust Company, N.A., as Escrow Agent under the Series 2004A Escrow Deposit Agreement, and its successors and assigns in such capacity.

"Series 2004A Escrow Deposit Agreement" shall mean the Series 2004A Escrow Deposit Trust Agreement dated as of August 1, 2010 between the Authority and the Escrow Agent.

"Series 2010 Credit Facility" shall mean the municipal bond insurance policy issued by the Series 2010 Credit Provider guaranteeing the scheduled payment of principal of and interest on the Insured Series 2010 Bonds when due. The Series 2010 Credit Facility shall be for all purposes a Credit Facility.

"Series 2010 Credit Provider" shall mean Assured Guaranty Municipal Corp. (formerly known as Financial Security Assurance Inc.), a New York stock insurance company, or any successor thereto or assignee thereof. The Series 2010 Credit Provider shall be for all purposes a Credit Provider.

But in trust nevertheless, for the equal and proportionate benefit and security of the Bonds issued and to be issued under and secured by the Indenture, including any Bonds hereafter issued, without preference, priority or distinction as to participation in the lien, benefit and protection hereof of any one Bond over any other or from the others by reason of priority in the issue or negotiation thereof or by reason of the date or dates of maturity thereof, or for any other reason whatsoever (except as expressly provided in the Indenture), so that each and all of the Bonds shall have the same right, lien and privilege under the Indenture and shall be equally secured hereby, with the same effect as if the same had all been made, issued and negotiated upon the delivery hereof (all except as expressly provided in the Indenture);

Provided, however, that prior to the occurrence of an Event of Default the lien on and pledge of the Trust Estate conferred by the Indenture in favor of the Trustee shall be subject in all respects to the provisions of the Indenture that require the application of Revenues or other moneys to the funds created under the Indenture, including in each case any account or subaccount established therein, prior to the application of such Revenues or other moneys for the payment of the principal or redemption price of and the interest on the Bonds. No Owner of any Bond has the right to compel any exercise of the taxing power of any unit of government to pay the principal or redemption price of the Bonds or the interest thereon.

Notwithstanding the foregoing provisions of these Granting Clauses:

(i) moneys in and investments of the Rebate Fund shall not be pledged to the payment of the Bonds and shall be applied solely to the payment of rebate amounts due to the United States of America with respect to Bonds or payments in lieu thereof or as otherwise provided in the Indenture; and

(ii) upon the occurrence of an Event of Default, the Trustee shall have a first lien on amounts held pursuant to Section 9.04 of the Original Indenture.

Provided further, however, that these presents are upon the condition that, if the Authority, or its successors, shall well and truly pay or cause to be paid, or provide for the payment of all principal, premium, if any, and interest on the Bonds due or to become due thereon, at the times and in the manner stipulated therein and herein, then the Indenture and the rights hereby granted shall cease, terminate and be void, but shall otherwise be and remain in full force;

And it is hereby further covenanted and agreed by and among the Authority, the Trustee and the Owners from time to time of the Bonds, that the 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 the Owners thereof, and the trusts and conditions upon which the moneys and securities hereby pledged are to be held and disposed of, which trusts and conditions the Trustee hereby accepts, are as follows:

**ARTICLE I**

**DEFINITIONS**

**SECTION 1.01. DEFINITIONS.** Unless the context otherwise requires, all capitalized terms used, but not defined, in this Sixth Supplemental Indenture, including the recitals and granting clauses hereto, shall have the meanings ascribed to them in the Original Indenture. Unless the context otherwise requires, the terms defined in the recitals hereto and this Section 1.01 shall for all purposes hereof and of any amendment hereof or supplement hereto and of the Bonds and of any certificate, opinion, request or other document mentioned herein or therein have the meanings defined herein, the

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**ARTICLE II**

**AUTHORIZATION, DETAILS, EXECUTION, DELIVERY  
AND REGISTRATION OF SERIES 2010 BONDS**

**SECTION 2.01. AUTHORIZATION OF SERIES 2010 BONDS.**

(a) There is hereby authorized to be issued under and secured by the Indenture, a Series of Bonds in the aggregate principal amount of \$395,590,000 and designated "Miami-Dade County Expressway Authority Toll System Revenue and Refunding Revenue Bonds, Series 2010A". The Series 2010A Bonds shall be issuable as Serial Bonds and Term Bonds as hereinafter set forth. Authorized Denominations for the Series 2010A Bonds shall be \$5,000 or integral multiples thereof. The definitive Series 2010A Bonds shall be issuable in typewritten form. The Series 2010A Bonds shall be substantially in the form attached as **Exhibit A** hereto.

(b) There is hereby authorized to be issued under and secured by the Indenture, a Series of Bonds in the aggregate principal amount of \$17,120,000 and designated "Miami-Dade County Expressway Authority Toll System Refunding Revenue Bonds, Series 2010B". The Series 2010B Bonds shall be issuable as Serial Bonds as hereinafter set forth. Authorized Denominations for the Series 2010B Bonds shall be \$5,000 or integral multiples thereof. The definitive Series 2010B Bonds shall be issuable in typewritten form. The Series 2010B Bonds shall be substantially in the form attached as **Exhibit B** hereto.

(c) The Series 2010 Bonds shall be dated and shall bear interest from the date of their original issuance and delivery. The Series 2010 Bonds shall: (i) mature on July 1 in the years and in the principal amounts set forth below; and (ii) bear interest payable at the rates per annum set forth below on January 1 and July 1 of each year, commencing on January 1, 2011 (each such date being hereby designated an "Interest Payment Date" for the Series 2010 Bonds), computed on the basis of a 360-day year consisting of twelve 30-day months.

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**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
Toll System Revenue and Refunding Revenue Bonds, Series 2010A**

**\$57,105,000 Serial Bonds**

| Maturity<br>(July 1) | Principal<br>Amount | Interest<br>Rate | Initial<br>CUSIP No. |
|----------------------|---------------------|------------------|----------------------|
| 2012                 | \$ 5,325,000        | 2.00%            | 59334KFL7            |
| 2013                 | 7,125,000           | 2.00             | 59334KFM5            |
| 2014                 | 4,640,000           | 3.00             | 59334KFN3            |
| 2015                 | 4,680,000           | 3.00             | 59334KFP8            |
| 2016                 | 4,620,000           | 3.00             | 59334KFAQ6           |
| 2017                 | 7,065,000           | 3.00             | 59334KFR4            |
| 2018                 | 8,585,000           | 4.00             | 59334KFS2            |
| 2019                 | 15,065,000          | 5.00             | 59334KFT0            |

\$15,695,000, 4.90% Term Bonds due July 1, 2035, Price 100%, Initial CUSIP No. 59334KFU7  
\$41,935,000, 5.00% Term Bonds due July 1, 2035, Price 100.847%, Initial CUSIP No. 59334KFV5  
\$280,855,000, 5.00% Term Bonds due July 1, 2040, Price 98.468%, Initial CUSIP No. 59334KFW3<sup>(1)</sup>

(1) Uninsured Bonds

**MIAMI-DADE COUNTY EXPRESSWAY AUTHORITY  
Toll System Refunding Revenue Bonds, Series 2010B**

**\$17,120,000 Serial Bonds**

| Maturity<br>(July 1) | Principal<br>Amount | Interest<br>Rate | Initial<br>CUSIP No. |
|----------------------|---------------------|------------------|----------------------|
| 2011                 | \$4,705,000         | 0.75%            | 59334KFX1            |
| 2012                 | 4,695,000           | 2.00             | 59334KFY9            |
| 2013                 | 4,795,000           | 2.00             | 59334KFZ6            |
| 2014                 | 2,925,000           | 3.00             | 59334KGA0            |

(d) The Series 2010 Bonds shall be subject to redemption as provided in the forms thereof, in the Original Indenture and in Article III of this Sixth Supplemental Indenture. The Series 2010 Bonds shall be considered Bonds for all purposes of the Indenture, on a parity as to the lien on the Trust Estate with the Series 1999 Bond, the Series 2001A Bonds, the Series 2002 Bonds, the Series 2004 Bonds, the Series 2005 Bonds, the Series 2006 Bonds and any other Additional Bonds, Completion Bonds or Refunding Bonds that may be issued hereafter. The payment of principal of and interest on the Insured Series 2010 Bonds when due will be insured by the Series 2010 Credit Facility to be issued simultaneously with the delivery of the Series 2010 Bonds by the Series 2010 Credit Provider.

(e) Upon issuance of the Series 2010A Bonds, the Trustee shall transfer \$381,626.67 from the Sinking Fund to the Series 2004A Escrow Agent, such moneys to be thereafter applied to accomplish the defeasance and redemption of the Series 2004A Bonds in accordance with the terms and provisions of the Series 2004A Escrow Deposit Agreement. Upon issuance of the Series 2010A Bonds, the proceeds of the Series 2010A Bonds, (representing the principal amount of the Series 2010A Bonds of

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(ii) separate written opinions of each Bond Counsel stating that each is of the opinion that the issuance of the Series 2010 Bonds has been duly authorized, that all conditions precedent to the delivery of the Series 2010 Bonds have been satisfied, that the Indenture creates a valid and enforceable pledge of the Trust Estate, and that the issuance of the Series 2010 Bonds will not adversely affect the exclusion of interest on any Bonds from gross income for federal income tax purposes;

(iii) \$409,290,195.97 in immediately available funds, constituting (A) the purchase price for the Series 2010 Bonds upon their original issuance and delivery, namely \$408,493,715.14 (representing the principal amount of the Series 2010 Bonds of \$412,710,000.00, less net original issue discount of \$783,212.25, less Underwriters' discount of \$2,067,650.96 and less \$1,365,421.65 representing the premium on the Series 2010 Credit Facility to be paid directly to the Series 2010 Credit Provider by the Underwriters for the Series 2010 Bonds); and (B) \$796,480.83 being transferred from the Sinking Fund, all of which moneys shall be applied as set forth in clauses (e) and (f) of this Section 2.01;

(iv) a certificate of an Authorized Officer to the effect that no Event of Default has occurred and is continuing as of the date of issuance of the Series 2010 Bonds and that there are no Policy Costs due and owing as of the date of issuance of the Series 2010 Bonds;

(v) the Series 2010 Credit Facility;

(vi) in respect of the Refunding Portion of the Series 2010A Bonds and the Series 20010B Bonds, either (A) a certificate signed by an Authorized Officer, confirming that the annual Principal and Interest Requirements for each Fiscal Year in which the Series 2000 Bonds and the Series 2004A Bonds would be Outstanding but for such refunding for all Outstanding Bonds (excluding the Series 2000 Bonds and the Series 2010B Bonds) following issuance of the Series 2010 Bonds is not greater than the annual Principal and Interest Requirements for each Fiscal Year for all Outstanding Bonds prior to issuance of the Series 2010 Bonds, or (B) in lieu thereof, the certificate required by Section 2.08(c)(v) of the Original Indenture, as amended, and the opinion required by Section 2.08(c)(vi), each prepared as though the Refunding Portion of the Series 2010A Bonds and the Series 2010B Bonds constitute a Series of Additional Bonds and as though the Test Period shall commence on the date of issuance of the Series 2010 Bonds, and under the circumstances set forth in Section 2.08(c)(vii), the written consent of the Department described therein;

(vi) in respect of the Series 2010A Bonds other than the Refunding Portion of the Series 2010A Bonds, a copy of a certificate signed by an Authorized Officer stating the amount of Test Period Revenues projected to be received by the Authority during the current Fiscal Year and each full Fiscal Year to and including the fifth full Fiscal Year following the projected date when the Series 2010 Project will be placed in service;

(vii) in respect of the Series 2010A Bonds other than the Refunding Portion of the Series 2010A Bonds, a written opinion of the Consulting Engineer stating that (A) the projections of Test Period Revenues set forth in the certificate of the Authorized Officer delivered pursuant to clause (vi) immediately above are reasonable, and (B) the Test Period Revenues are sufficient to enable the Authority to comply with all of the requirements of Section 5.01(b) of the Original Indenture over the entirety of the Test Period, taking into account the additional Principal and Interest Requirements of the Series 2010A Bonds other than the Refunding Portion of the Series 2010A Bonds;

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\$395,590,000.00, minus net original issue discount of \$1,081,550.75, less underwriters' discount of \$2,036,053.56), less \$1,252,393.70 representing a portion of the premium on the Series 2010 Credit Facility, namely \$391,220,001.99, shall be paid to the Trustee and applied as follows:

(i) \$307,503,982.51 shall be deposited to the credit of the Series 2010 Account of the Construction Fund hereby authorized to be established and maintained by the Trustee, such moneys to be thereafter applied as permitted under the Indenture to pay the Cost of the Series 2010 Project, and \$7,302,515.33 shall be deposited to the credit of the Series 2010A Capitalized Interest Account of the Construction Fund hereby authorized to be established and maintained by the Trustee to pay capitalized interest on the Series 2010A Bonds;

(ii) \$49,275,000.00 shall be deposited with the Series 2004A Escrow Agent, such moneys to be thereafter applied to accomplish the defeasance and redemption of the Series 2004A Bonds in accordance with the terms and provisions of the Series 2004A Escrow Deposit Agreement;

(iii) \$15,743,193.76 shall be deposited to the credit of the Debt Service Reserve Fund; and

(iv) \$11,395,310.39 shall be deposited to the credit of the 2010 Costs of Issuance Account hereby authorized to be established and maintained by the Trustee and applied as directed by an Authorized Officer to pay costs associated with the issuance of the Series 2010A Bonds, including reimbursement to the Authority for its prior payment of Hedge Charges in connection with the interest rate swap relating to the Series 2004A Bonds.

(f) Upon issuance of the Series 2010B Bonds, the Trustee shall transfer \$414,854.16 from the Sinking Fund to the Series 2000 Escrow Agent, such moneys to be thereafter applied to accomplish the defeasance and redemption of the Series 2000 Bonds in accordance with the terms and provisions of the Series 2000 Escrow Deposit Agreement. Upon issuance of the Series 2010B Bonds, the proceeds of the Series 2010B Bonds (representing the principal amount of the Series 2010B Bonds of \$17,120,000.00, plus net original issue premium of \$298,338.50, less underwriters' discount of \$31,597.40), less \$113,027.95 representing a portion of the premium on the Series 2010 Credit Facility, namely \$17,273,713.15, shall be paid to the Trustee and applied as follows:

(i) \$17,206,279.87 shall be deposited with the Series 2000 Escrow Agent, such moneys to be thereafter applied to accomplish the defeasance and redemption of the Series 2000 Bonds in accordance with the terms and provisions of the Series 2000 Escrow Deposit Agreement; and

(iv) \$67,433.28 shall be deposited to the credit of the 2010 Costs of Issuance Account and applied as directed by an Authorized Officer to pay costs associated with the issuance of the Series 2010B Bonds.

(g) The Series 2010 Bonds shall be authenticated by the Bond Registrar and delivered by the Trustee in such manner as shall be specified in writing by an Authorized Officer, but only after the Series 2010 Bonds shall have been executed as provided in the Indenture and there shall have been delivered to the Trustee the following:

(i) a fully executed copy of this Sixth Supplemental Indenture;

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(viii) in respect of the Series 2010A Bonds other than the Refunding Portion of the Series 2010A Bonds, either (A) a certificate of the Department stating that, at the time the Series 2010 Bonds are to be issued, (1) the Authority is current in the payment to the Department of any unpaid Non-contingent Portion of Annual Repayment Requirements, (2) there is not any unpaid Contingent Portion of Annual Repayment Requirements, and (3) the Department acknowledges that Revenues, based on the opinion of the Consulting Engineer, are projected to be sufficient to pay when due the Annual Repayment Requirements after taking into account the debt service requirements of the Series 2010A Bonds other than the Refunding Portion of the Series 2010A Bonds, or (B) if, at the time the Series 2010 Bonds are to be issued (1) the Authority is not current in the payment to the Department of any unpaid Non-contingent Portion of Annual Repayment Requirements, (2) there shall be any unpaid Contingent Portion of Annual Repayment Requirements, or (3) Revenues, based on the opinion of the Consulting Engineer, are projected to be insufficient to pay when due the Annual Repayment Requirements after taking into account the debt service requirements of the Additional Bonds, a written consent from the Department to the issuance of the Series 2010A Bonds other than the Refunding Portion of the Series 2010A Bonds;

(ix) in respect of the Series 2010A Bonds other than the Refunding Portion of the Series 2010A Bonds, a certificate of the Department to the effect that the Authority has delivered to the Department a certificate prepared in accordance Section 2.08(c)(vi) of the Original Indenture and prepared as though the scheduled debt service payments required to be made by the Authority to the Department under such State Infrastructure Bank Loan Agreements then in effect between the Authority and the Department constitute a component of Annual Repayment Requirements; and

(x) separate written opinions of each Bond Counsel relating to the defeasance of the refunded Series 2000 Bonds and the Series 2004A Bonds.

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## ARTICLE III

### REDEMPTION OF SERIES 2010 BONDS

#### SECTION 3.01. REDEMPTION DATES AND PRICES.

(a) Except as set forth in clause (c) below, the Series 2010 Bonds maturing on or prior to July 1, 2020 are not subject to optional redemption. The Series 2010 Bonds maturing after July 1, 2020 are subject to optional redemption prior to their stated maturity, at the option of the Authority, in whole or in part, and if in part, in any order of maturity selected by the Authority and by lot within a maturity, on any date on or after July 1, 2020, at a redemption price equal to 100% of the principal amount thereof plus accrued interest thereon to the redemption date, without premium.

(b) The Series 2010A Term Bonds maturing on July 1, 2035 bearing interest at a rate of 4.90%, July 1, 2035 bearing interest at a rate of 5.00%, and July 1, 2040 are subject to mandatory redemption prior to maturity at a redemption price equal to 100% of the principal amount thereof plus accrued interest thereon to the redemption date, by application by the Trustee of funds on deposit to the credit of the Sinking Fund, on July 1 in the years and in the principal amounts as follows:

| 2035 Term Bonds at 4.90% |                  | 2035 Term Bonds at 5.00% |                  |
|--------------------------|------------------|--------------------------|------------------|
| Year                     | Principal Amount | Year                     | Principal Amount |
| 2034                     | 625,000          | 2034                     | 000              |
| 2035*                    | 15,070.00        | 2035*                    | 28,620,000       |
| 2040 Term Bonds          |                  |                          |                  |
|                          | Year             |                          | Principal Amount |
|                          | 2036             |                          | \$45,860,        |
|                          | 2037             |                          | 000              |
|                          | 2038             |                          | 48,150,000       |
|                          | 2039             |                          | 50,565,000       |
|                          | 2040*            |                          | 53,095,000       |
|                          |                  |                          | 83,185,000       |

\*Final Maturity

(c) The Series 2010 Bonds may be redeemed in whole or in part in such amounts and of such maturities as the Authority shall direct at any time at a redemption price equal to 100% of the principal

amount thereof plus accrued interest, if any, to the redemption date upon receipt by the Trustee of a written notice from the Authority stating that either of the following events has occurred:

(i) all or substantially all of the System shall be damaged or destroyed and the Authority shall determine that it is not practicable or desirable to rebuild, repair and restore the same; or

(ii) all or substantially all of the System shall be condemned or such use or control thereof shall be taken by eminent domain as to render the same unsatisfactory to the Authority for continued operation.

**SECTION 3.02. NOTICE OF REDEMPTION.** Prior to notice being given to the Owners of the Series 2010 Bonds of any optional redemption under Section 3.01(a), either (A) there shall be deposited with the Trustee an amount sufficient to pay the principal amount and redemption premium, if any, of the Series 2010 Bonds subject to redemption, plus accrued interest to the redemption date, or (B) such notice shall state that the redemption is conditioned on the receipt of moneys for such redemption by the Trustee on or prior to the redemption date. In the event that a conditional notice of redemption is given and such moneys are not timely received, the redemption for which such notice was given shall not be undertaken. Amounts deposited pursuant to this paragraph shall be kept by the Trustee in a separate account in the Sinking Fund (which the Trustee is hereby authorized and directed to create), and segregated from all other moneys deposited under the Indenture and shall be held uninvested unless invested at the direction of an Authorized Officer only in Government Obligations that mature on or before the redemption date. Not less than forty (40) days prior to each redemption date (other than a redemption of Series 2010 Bonds in order to fulfill Amortization Requirements for which no prior notice from the Authority to the Trustee shall be required), the Authority shall provide the Trustee prior written notice of its intention to redeem the Series 2010 Bonds in whole or in part. Within five (5) Business Days of receipt of any such notice, if required, and, in any case, and at least thirty (30) days, but not more than forty-five (45) days, before a redemption date applicable to the Series 2010 Bonds, the Trustee shall cause a notice of such redemption to be: (a) filed with any Paying Agent; and (b) mailed, postage prepaid, to each Owner of the Series 2010 Bonds subject to such redemption at its address as it appears on the registration books herein provided for. Failure to file any such notice with any Paying Agent shall not affect the validity of the proceedings for redemption.

**SECTION 3.03. OTHER REDEMPTION PROVISIONS.** Except as otherwise set forth in this Article III, the provisions of Sections 3.02, 3.04, 3.05 and 3.06 of the Original Indenture shall apply to redemptions of the Series 2010 Bonds.

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## ARTICLE IV

### AMENDMENT OF ORIGINAL INDENTURE; MISCELLANEOUS PROVISIONS

#### SECTION 4.01. APPOINTMENT OF BOND REGISTRAR AND PAYING AGENT.

The Bank of New York Mellon Trust Company, N.A. shall act as Bond Registrar and Paying Agent for the Series 2010 Bonds. Its notice address, when acting in either of such capacities, shall be as set forth in Section 14.02 of the Original Indenture for the Trustee.

#### SECTION 4.02. EFFECTIVE.

This Sixth Supplemental Indenture shall take effect as of its date.

#### SECTION 4.03. AMENDMENT OF ORIGINAL INDENTURE.

The Original Indenture shall be deemed to have been amended as follows if and when (i) in accordance with the provisions of Section 11.02 of the Original Indenture, the Authority shall have obtained the consent and approval of each Credit Provider and the Owners of not less than a majority in aggregate principal amount of Bonds then Outstanding (or where Bonds are insured, the consent and approval of the Credit Provider insuring such Bonds), and (ii) the Authority shall have obtained the consent and approval of each Counterparty with a right of consent and approval to such amendments:

(a) Amendment to Section 2.08 of Original Indenture. Section 2.08(c)(v) and (vi) of the Original Indenture is hereby amended to read as follows (with underlined text being added and stricken text being deleted):

(v) A copy of a certificate signed by an Authorized Officer stating the amount of Test Period Revenues projected to be received by the Authority during the current Fiscal Year and each full Fiscal Year to and including the fifth full Fiscal Year following the projected date when the Project to be financed from the proceeds of such Additional Bonds will be placed in service (the "Test Period"). "Test Period Revenues" shall mean, for the purposes hereof, the Net Revenues during the Test Period, as determined by the Authorized Officer, further adjusted by the Authorized Officer to reflect 100% of the additional Revenues which, in the opinion of the Consulting Engineer, would be received from increases in Tolls, rates, fees, rentals and other charges relating to the System scheduled to take effect during the Test Period (provided that such increases must be adopted as of the date the certification is made and such increases must be effective on, or scheduled to become effective no later than ~~eighteen~~ thirty-six months from, the date on which such certificate is made and must remain in effect for the entirety of the Test Period);

(vi) A written opinion of the Consulting Engineer stating that (A) the projections of Test Period Revenues set forth in the certificate of the Authorized Officer delivered pursuant to clause (v) immediately above, including, without limitation, that portion of Test Period Revenues anticipated by the Authorized Officer to be derived from increases in Tolls, rates, fees, rentals and other charges relating to the System scheduled to take effect during the Test Period, are reasonable, and (B) the Test Period Revenues are sufficient to enable the Authority to comply with all of the requirements of Section 5.01(b) over the entirety of the Test Period, taking into account the additional Principal and Interest Requirements of the Additional Bonds proposed to be issued;

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(b) Amendment to Section 5.08 of Original Indenture. Section 5.08(d) of the Original Indenture is hereby amended by adding the following new clause (xii) at the conclusion thereof (with underlined text being added):

(xii) Notwithstanding anything in this Indenture to the contrary,

(A) the Authority may satisfy any incremental increase in the Debt Service Reserve Fund Requirement resulting from the issuance of Bonds after June 30, 2010 with a Reserve Facility if the Reserve Facility Provider of such Reserve Facility has a long-term credit rating of not less than "A1/A+" from Moody's and S&P respectively at the time of deposit of such Reserve Facility into the Debt Service Reserve Fund.

(B) Except as otherwise set forth in this clause (B), if (1) such a Reserve Facility Provider becomes insolvent or defaults in its payment obligations on its Reserve Facility, or (2) the long-term credit rating of such Reserve Facility Provider falls below a Moody's "A2" or an S&P "A", the obligation to reimburse such Reserve Facility Provider shall be subordinate to the cash replenishment of the Debt Service Reserve Fund. At such time as the Authority shall certify to the Trustee in writing that (i) the Authority shall have obtained the consent and approval of each Credit Provider and the Owners of not less than a majority in aggregate principal amount of Bonds then Outstanding (or where Bonds are insured, the consent and approval of the Credit Provider insuring such Bonds), thereto, and (ii) the Authority shall have obtained the consent and approval of each Counterparty with a right of consent and approval thereto, the preceding sentence shall no longer be of any force and effect and shall be superseded and replaced by the following: "If (1) such a Reserve Facility Provider becomes insolvent or defaults in its payment obligations on its Reserve Facility, or (2) the long-term credit rating of such Reserve Facility Provider falls below a Moody's "A3" or an S&P "A-", the obligation to reimburse such Reserve Facility Provider shall be subordinate to the cash replenishment of the Debt Service Reserve Fund."

(C) Except as otherwise set forth in this clause (C), if (1) the revolving reinstatement feature of such a Reserve Facility described in clause (d)(v) of this Section is suspended or terminated, (2) the long-term credit rating of the Reserve Facility Provider of such Reserve Facility falls below a Moody's "A2" or an S&P "A" or is withdrawn or suspended, or (3) such Reserve Facility Provider becomes insolvent or defaults in its payment obligations on its Reserve Facility, the Authority shall either deposit into the Debt Service Reserve Fund an amount sufficient to cause the cash or Investment Securities on deposit in the Debt Service Reserve Fund to equal the Debt Service Reserve Fund Requirement on all Outstanding Bonds, such amount to be paid over the ensuing three years in equal installments deposited at least semi-annually or replace such instrument with a surety bond, insurance policy or letter of credit meeting the requirements of this clause (xii) above within six months of such occurrence. At such time as the Authority shall certify to the Trustee in writing that (i) the Authority shall have obtained the consent and approval of each Credit Provider and the Owners of not less than a majority in aggregate principal amount of Bonds then Outstanding (or where Bonds are insured, the consent and approval of the Credit Provider insuring such Bonds), thereto, and (ii) the Authority shall have obtained

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the consent and approval of each Counterparty with a right of consent thereto, the preceding sentence shall no longer be of any force and effect and shall be superseded and replaced by the following: "If (1) the revolving reinstatement feature of such a Reserve Facility described in clause (d)(v) of this Section is suspended or terminated, (2) the long-term credit rating of the Reserve Facility Provider of such Reserve Facility falls below a Moody's "A3" or an S&P "A-" or is withdrawn or suspended, or (3) such Reserve Facility Provider becomes insolvent or defaults in its payment obligations on its Reserve Facility, the Authority shall either deposit into the Debt Service Reserve Fund an amount sufficient to cause the cash or Investment Securities on deposit in the Debt Service Reserve Fund to equal the Debt Service Reserve Fund Requirement on all Outstanding Bonds, such amount to be paid over the ensuing five years in equal installments deposited at least semi-annually or replace such instrument with a surety bond, insurance policy or letter of credit meeting the requirements of this clause (xii) above within six months of such occurrence."

(D) To the extent not inconsistent with this clause (xii), the requirements of this Indenture, including particularly Section 5.08(d), applicable to Reserve Facilities shall apply to Reserve Facilities acquired to satisfy any incremental increase in the Debt Service Reserve Fund Requirement resulting from the issuance of Bonds after June 30, 2010.

The initial Owners of the Series 2010 Bonds, by virtue of their purchase and acceptance of the Series 2010 Bonds, shall be deemed to have consented to and approved the amendments to the Original Indenture set forth in this Section 4.03, including those provisions set forth in the second sentences of clauses (B) and (C) of Section 5.08(d)(xii) of the Original Indenture set forth as part of the amendments to the Original Indenture in this Section 4.03, and all subsequent Owners of the Series 2010 Bonds shall be bound by the terms of such consent and approval and by the terms of this Section 4.03.

**SECTION 4.04. PROVISIONS OF ORIGINAL INDENTURE NOT OTHERWISE MODIFIED.** Except as modified or supplemented by this Sixth Supplemental Indenture, the Original Indenture is in all respects hereby ratified and confirmed.

**SECTION 4.05. COUNTERPARTS.** This Sixth Supplemental Indenture may be simultaneously executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

**SECTION 4.06. PROVISIONS RELATING TO SERIES 2010 CREDIT FACILITY.** Notwithstanding anything in the Indenture to the contrary:

(a) If, on the third Business Day prior to the related scheduled Interest Payment Date or principal payment date ("Payment Date") with respect to the Insured Series 2010 Bonds, there is not on deposit with the Trustee, after making all transfers and deposits required under the Indenture, moneys sufficient to pay the principal of and interest on the Insured Series 2010 Bonds due on such Payment Date, the Trustee shall give notice to the Series 2010 Credit Provider and to its designated agent (if any) (the "Series 2010 Credit Provider's Fiscal Agent") by telephone or telecopy of the amount of such deficiency by 12:00 noon, New York City time, on such Business Day. If, on the second Business Day prior to the related Payment Date, there continues to be a deficiency in the amount available to pay the principal of and interest on the Insured Series 2010 Bonds due on such Payment Date, the Trustee shall make a claim under the Series 2010 Credit Facility and give notice to the Series 2010 Credit Provider and the Series 2010 Credit Provider's Fiscal Agent (if any) by telephone of the amount of such deficiency, and the

allocation of such deficiency between the amount required to pay interest on the Insured Series 2010 Bonds and the amount required to pay principal of the Insured Series 2010 Bonds, confirmed in writing to the Series 2010 Credit Provider and the Series 2010 Credit Providers Fiscal Agent by 12:00 noon, New York City time, on such second Business Day by filing in the form of Notice of Claim and Certificate delivered with the Series 2010 Credit Facility.

The Trustee shall designate any portion of payment of principal on Insured Series 2010 Bonds paid by the Series 2010 Credit Provider, whether by virtue of mandatory sinking fund redemption, maturity or other advancement of maturity, on its books as a reduction in the principal amount of Insured Series 2010 Bonds registered to the then current Bondholder, whether DTC or its nominee or otherwise, and shall issue a replacement Insured Series 2010 Bond to the Series 2010 Credit Provider, registered in the name of Assured Guaranty Municipal Corp. (formerly known as Financial Security Assurance Inc.), in a principal amount equal to the amount of principal so paid (without regard to authorized denominations); provided that the Trustee's failure to so designate any payment or issue any replacement Insured Series 2010 Bond shall have no effect on the amount of principal or interest payable by the Authority on any Insured Series 2010 Bond or the subrogation rights of the Series 2010 Credit Provider.

The Trustee shall keep a complete and accurate record of all funds deposited by the Series 2010 Credit Provider into the Policy Payments Account (defined below) and the allocation of such funds to payment of interest on and principal of any Insured Series 2010 Bond. The Series 2010 Credit Provider shall have the right to inspect such records at reasonable times upon reasonable notice to the Trustee.

Upon payment of a claim under the Series 2010 Credit Facility, the Trustee shall establish a separate special purpose trust account for the benefit of Bondholders of Insured Series 2010 Bonds referred to herein as the "Policy Payments Account" and over which the Trustee shall have exclusive control and sole right of withdrawal. The Trustee shall receive any amount paid under the Series 2010 Credit Facility in trust on behalf of Bondholders of Insured Series 2010 Bonds and shall deposit any such amount in the Policy Payments Account and distribute such amount only for purposes of making the payments for which a claim was made. Such amounts shall be disbursed by the Trustee to Bondholders of Insured Series 2010 Bonds in the same manner as principal and interest payments are to be made with respect to the Bonds under the sections hereof regarding payment of Bonds. It shall not be necessary for such payments to be made by checks or wire transfers separate from the check or wire transfer used to pay debt service with other funds available to make such payments. Notwithstanding anything herein to the contrary, the Authority agrees to pay to the Series 2010 Credit Provider (i) a sum equal to the total of all amounts paid by the Series 2010 Credit Provider under the Series 2010 Credit Facility (the "Series 2010 Credit Provider Advances"); and (ii) interest on such Series 2010 Credit Provider Advances from the date paid by the Series 2010 Credit Provider until payment thereof in full, payable to the Series 2010 Credit Provider at the Late Payment Rate per annum (collectively, the "Series 2010 Credit Provider Reimbursement Amounts"). "Late Payment Rate" means the lesser of (a) the greater of (i) the per annum rate of interest, publicly announced from time to time by JPMorgan Chase Bank at its principal office in The City of New York, as its prime or base lending rate (any change in such rate of interest to be effective on the date such change is announced by JPMorgan Chase Bank) plus 3%, and (ii) the then applicable highest rate of interest on the Insured Series 2010 Bonds and (b) the maximum rate permissible under applicable usury or similar laws limiting interest rates. The Late Payment Rate shall be computed on the basis of the actual number of days elapsed over a year of 360 days. The Authority hereby covenants and agrees that the Series 2010 Credit Provider Reimbursement Amounts are secured by a lien on and pledge of the Trust Estate and payable from such Trust Estate on a parity with debt service due on Outstanding Bonds.

Funds held in the Policy Payments Account shall not be invested by the Trustee and may not be applied to satisfy any costs, expenses or liabilities of the Trustee. Any funds remaining in the Policy

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Payments Account following an Insured Series 2010 Bond payment date shall promptly be remitted to the Series 2010 Credit Provider.

(b) The Series 2010 Credit Provider is hereby deemed a third party beneficiary of the Indenture.

(c) Any Insured Series 2010 Bonds purchased by or on behalf of the Authority shall be immediately cancelled unless the Series 2010 Credit Provider consents otherwise.

(d) Unless the Series 2010 Credit Provider otherwise directs, upon the occurrence and continuance of an Event of Default or an event which with notice or lapse of time would constitute an Event of Default, amounts on deposit in the Construction Fund shall not be disbursed, but shall instead be applied to the payment of debt service or redemption price of the Bonds.

(e) The rights granted to the Series 2010 Credit Provider under the Indenture to request, consent to or direct any action are rights granted to the Series 2010 Credit Provider in consideration of its issuance of the Series 2010 Credit Facility. Any exercise by the Series 2010 Credit Provider of such rights is merely an exercise of the Series 2010 Credit Provider's contractual rights and shall not be construed or deemed to be taken for the benefit, or on behalf, of the Bondholders and such action does not evidence any position of the Insurer, affirmative or negative, as to whether the consent of the Bondholders or any other person is required in addition to the consent of the Series 2010 Credit Provider. Notwithstanding anything in the Indenture to the contrary, the Series 2010 Credit Provider shall have no right to consent to and approve any Supplemental Indenture under the first paragraph of Section 11.02 of the Original Indenture, provided that the Series 2010 Credit Provider shall have the right to consent to any Supplemental Indenture that adversely affects the rights or interests of the Series 2010 Credit Provider or changes the procedures relating to claims under the Series 2010 Credit Facility and, provided, further, that, in the event the Authority after the date hereof permits any Credit Provider to have the right to consent and approve any Supplemental Indenture under the first paragraph of Section 11.02 of the Original Indenture, the Series 2010 Credit Provider shall, immediately and automatically thereupon, without further act by the Authority, the Trustee or any other party, also have such right (and the first part of this sentence shall thereafter have no effect) until such time that all Credit Providers other than the Series 2010 Credit Provider have agreed to forego such right. Except as set forth in the preceding sentence, the rights of the Series 2010 Credit Provider to consent to and approve Supplemental Indentures under Section 11.02 of the Original Indenture shall be limited to those rights conferred by the penultimate paragraph of said Section 11.02.

(f) Only (1) cash, (2) non-callable direct obligations of the United States of America ("Treasures"), or (3) evidences of ownership of proportionate interests in future interest and principal payments on Treasures held by a bank or trust company as custodian, under which the owner of the investment is the real party in interest and has the right to proceed directly and individually against the obligor and the underlying Treasures are not available to any person claiming through the custodian or to whom the custodian may be obligated, shall be used to effect defeasance of Insured Series 2010 Bonds unless the Series 2010 Credit Provider otherwise approves.

If the Insured Series 2010 Bonds to be refunded will not be redeemed within ninety (90) days of the defeasance deposit, the Authority shall cause to be delivered (i) a report of an independent firm of nationally recognized certified public accountants or such other accountant as shall be acceptable to the Insurer ("Accountant") verifying the sufficiency of the escrow established to pay such Insured Series 2010 Bonds in full on the maturity or redemption date ("Verification"), (ii) an escrow deposit agreement (which shall be acceptable in form and substance to the Series 2010 Credit Provider), (iii) an opinion of Bond Counsel to the effect that such Insured Series 2010 Bonds are no longer Outstanding under the Indenture and (iv) a certificate of discharge of the Trustee with respect to such Insured Series 2010

Bonds; each Verification and defeasance opinion shall be acceptable in form and substance, and addressed, to the Authority, Trustee and Series 2010 Credit Provider. The Series 2010 Credit Provider shall be provided with final drafts of the above-referenced documentation not less than five business days prior to the funding of the escrow.

Insured Series 2010 Bonds shall be deemed "Outstanding" under the Trust Indenture unless and until they are in fact paid and retired or the above criteria are met.

(g) Amounts paid by the Series 2010 Credit Provider under the Series 2010 Credit Facility shall not be deemed paid for purposes of the Indenture and the Insured Series 2010 Bonds relating to such payments shall remain Outstanding and continue to be due and owing until paid by the Authority in accordance with the Indenture. The Indenture shall not be discharged unless all amounts due or to become due to the Insurer have been paid in full or duly provided for.

(h) the Authority covenants and agrees to take, and to cause the Trustee to take, such action as is necessary from time to time to preserve the priority of the pledge of the Trust Estate under applicable law.

(i) The Series 2010 Credit Provider shall, to the extent it makes any payment of principal of or interest on the Insured Series 2010 Bonds, become subrogated to the rights of the recipients of such payments in accordance with the terms of the Series 2010 Credit Facility. Each obligation of the Authority to the Series 2010 Credit Provider under the Indenture shall survive discharge or termination of the Indenture.

(j) The Authority shall pay or reimburse the Series 2010 Credit Provider any and all charges, fees, costs and expenses that the Series 2010 Credit Provider may reasonably pay or incur in connection with (i) the administration, enforcement, defense or preservation of any rights or security in the Indenture; (ii) the pursuit of any remedies under the Indenture or otherwise afforded by law or equity; (iii) any amendment, waiver or other action with respect to, or related to, the Indenture whether or not executed or completed; or (iv) any litigation or other dispute in connection with the Indenture or the transactions contemplated thereby; other than costs resulting from the failure of the Series 2010 Credit Provider to honor its obligations under the Series 2010 Credit Facility. The Series 2010 Credit Provider reserves the right to charge a reasonable fee as a condition to executing any amendment, waiver or consent proposed in respect of the Indenture.

(k) After payment of reasonable expenses of the Trustee, the application of funds realized upon default shall be applied to the payment of expenses of the Authority or rebate only after the payment of past due and current debt service on the Bonds and amounts required to restore the Debt Service Reserve Fund to the Debt Service Reserve Fund Requirement.

(l) The Series 2010 Credit Provider shall be entitled to pay principal or interest on the Insured Series 2010 Bonds that shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer (as such terms are defined in the Series 2010 Credit Facility).

(m) The notice address of the Series 2010 Credit Provider is: Assured Guaranty Municipal Corp. (formerly known as Financial Security Assurance Inc.), 31 West 52nd Street, New York, New York 10019, Attention: Managing Director — Surveillance, Re: Policy No. Telephone: (212) 826-0100; Telecopier: (212) 339-3556. In each case in which notice or other communication refers to an Event of Default, then a copy of such notice or other communication shall also be sent to the attention of the General Counsel and shall be marked to indicate "URGENT MATERIAL ENCLOSED."

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(n) The Series 2010 Credit Provider shall be provided with the following information by the Issuer or Trustee, as the case may be:

(i) By the Authority, annual audited financial statements within 150 days after the end of each Fiscal Year (together with a certification of the Authority that it is not aware of any default or Event of Default under the Indenture), and the Authority's annual budget within 30 days after the approval thereof together with such other information, data or reports as the Series 2010 Credit Provider shall reasonably request from time to time;

(ii) By the Trustee, notice of any draw upon the Debt Service Reserve Fund within two Business Days after knowledge thereof;

(iii) By the Authority, notice of any default known to the Authority within five Business Days after knowledge thereof and by the Trustee, notice of any Event of Default that the Trustee is presumed to have knowledge of under the Indenture within five Business days after the occurrence thereof;

(iv) By the Authority, prior notice of the advance refunding or redemption of any of the Insured Series 2010 Bonds, including the principal amount, maturities and CUSIP numbers thereof;

(v) By the Authority, notice of the resignation or removal of the Trustee and Bond Registrar and the appointment of, and acceptance of duties by, any successor thereto;

(vi) By the Authority, notice of the commencement of any proceeding by or against the Authority commenced under the United States Bankruptcy Code or any other applicable bankruptcy, insolvency, receivership, rehabilitation or similar law (an "Insolvency Proceeding");

(vii) By the Authority, notice of the making of any claim in connection with any Insolvency Proceeding seeking the avoidance as a preferential transfer of any payment of principal of, or interest on, the Bonds;

(viii) By the Authority, a full original transcript of all proceedings relating to the execution of any amendment, supplement, or waiver to the Indenture;

(ix) By the Trustee, all reports, notices and correspondence to be delivered to Bondholders by the Trustee under the terms of the Indenture and by the Authority, all reports, notices and correspondence to be delivered to Bondholders by the Authority under the terms of the Indenture; and

(x) By the Authority, to the extent that the Authority has entered into a continuing disclosure agreement, covenant or undertaking with respect to the Insured Series 2010 Bonds, all information furnished pursuant to such agreements shall also be provided to the Series 2010 Credit Provider, simultaneously with the furnishing of such information.

(o) The Series 2010 Credit Provider shall have the right to receive such additional information as it may reasonably request.

(p) The Authority shall permit the Series 2010 Credit Provider to discuss the affairs, finances and accounts of the Authority or any information the Series 2010 Credit Provider may reasonably request regarding the security for the Insured Series 2010 Bonds with appropriate officers of the Authority and,

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In witness whereof, the Authority has caused this Sixth Supplemental Indenture to be signed in its name and on its behalf by its Chief Executive Officer, and its seal to be hereunto affixed and attested by its Secretary, thereunto duly authorized, and to evidence its acceptance of the trusts hereby created, the Trustee has caused this Sixth Supplemental Indenture to be signed in its name and on its behalf by one of its duly authorized officers.

Signatures:

MIAMI-DADE COUNTY EXPRESSWAY  
AUTHORITY

By: \_\_\_\_\_  
Javier Rodriguez, P.E.  
Chief Executive Officer

[Seal]

Attest:

\_\_\_\_\_  
Secretary

THE BANK OF NEW YORK MELLON  
TRUST COMPANY, N.A., as Trustee

By: \_\_\_\_\_  
Cynthia M. Moore  
Vice President

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subject to the requirements of applicable law, shall use commercially reasonable efforts to enable the Series 2010 Credit Provider to have access to the facilities, books and records of the Series 2010 Credit Provider on any business day upon reasonable prior notice.

(q) The Authority shall notify the Series 2010 Credit Provider of any failure of the Authority to provide notices, certificates and other information under the Indenture.

(r) Notwithstanding satisfaction of the other conditions to the issuance of Additional Bonds set forth in the Indenture, no such issuance may occur (1) if an Event of Default (or any event which, once all notice or grace periods have passed, would constitute an Event of Default) exists unless such default shall be cured upon such issuance and (2) unless the Debt Service Reserve Fund is fully funded at the Debt Service Reserve Fund Requirement (including the proposed issue) upon the issuance of such Additional Bonds, in either case unless otherwise permitted by the Series 2010 Credit Provider and Ambac Assurance Corporation.

(s) In determining whether any amendment, consent, waiver or other action to be taken, or any failure to take action, under the Indenture would adversely affect the security for the Insured Series 2010 Bonds or the rights of the Bondholders of the Insured Series 2010 Bonds, the Trustee shall consider the effect of any such amendment, consent, waiver, action or inaction as if there were no Series 2010 Credit Facility.

(t) No contract shall be entered into or any action taken by which the rights of the Series 2010 Credit Provider or security for or sources of payment of the Insured Series 2010 Bonds may be impaired or prejudiced in any material respect except upon obtaining the prior written consent of the Series 2010 Credit Provider.

(u) Notwithstanding any provision to the contrary in the Indenture, the Authority shall use actual amortization on all Bonds then Outstanding to determine Principal and Interest Requirements for purposes of the Indenture, disregarding any provision in the Trust Indenture allowing for assumed, hypothetical or deemed amortization.

(v) Any subsidy payments received by the Authority as a consequence of any Outstanding Bonds being Recovery Zone Economic Development Bonds or Build America Bonds under the American Recovery and Reinvestment Act of 2009, or other program providing for debt service subsidies with respect to Bonds ("Federal Subsidy") shall not constitute an offset to debt service for purposes of the Indenture (including for purposes of determining "Principal and Interest Requirements" as such term is used in the Indenture). The Authority's obligation to pay principal of and interest on Bonds is not net of the Federal Subsidy so that if such Federal Subsidy is suspended, reduced or terminated, the Authority shall remain obligated for the full amount of principal and interest on the Bonds.

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**APPENDIX F**  
**THE CONTINUING DISCLOSURE AGREEMENT**

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## **CONTINUING DISCLOSURE AGREEMENT**

This Continuing Disclosure Agreement is dated as of August 18, 2010 (as the same may be amended or supplemented from time to time, this “Agreement”), and is between Miami-Dade County Expressway Authority (together with its successors and assigns as permitted under this Agreement, the “Authority”), a body politic and corporate, a public instrumentality and an agency of the State of Florida (the “State”) existing under the Florida Expressway Authority Act (Part I of Chapter 348, Florida Statutes, as amended) (together with any successor provisions of law, the “Act”), and The Bank of New York Mellon Trust Company, N.A., a national banking association organized and existing under the laws of the United States of America, as Dissemination Agent (together with any successor permitted under this Agreement, the “Dissemination Agent”).

### **WITNESSETH:**

**WHEREAS**, the Authority was established by Ordinance No. 94-215, adopted on December 13, 1994, as amended, by the Board of County Commissioners of Miami-Dade County, Florida, pursuant to the Act; and

**WHEREAS**, the Authority is issuing under the Amended and Restated Trust Indenture dated as of June 15, 2002, as amended and supplemented (the “Indenture”), from the Authority to The Bank of New York Mellon Trust Company, N.A. (as successor in trust to The Bank of New York), as trustee (in such capacity, the “Trustee”), (a) \$395,590,000 original aggregate principal amount of its Miami-Dade County Expressway Authority Toll System Revenue and Refunding Revenue Bonds, Series 2010A (the “2010A Bonds”) to provide funds to (i) pay a portion of the Cost of certain Improvements to the System included within the Five Year Work Program of the Authority as in effect from time to time, including capitalized interest, (ii) refund and defease all of the Outstanding principal amount of Miami-Dade County Expressway Authority Toll System Refunding Revenue Bonds, Series 2004A (the “Refunded 2004A Bonds”), (iii) reimburse the Authority for a termination payment made in connection with the termination of an interest rate swap relating to the Refunded 2004A Bonds, (iv) fund a deposit to the Debt Service Reserve Fund in an amount equal to the increase in the Debt Service Reserve Fund Requirement resulting from the issuance of the 2010A Bonds, and (v) pay certain costs associated with the issuance of the 2010A Bonds and refunding of the Refunded 2004 Bonds, including a portion of the premium for the municipal bond insurance policy (the “Policy”) relating to the Series 2010 Bonds (defined below) and (b) \$17,120,000 original aggregate principal amount of its Miami-Dade County Expressway Authority Toll System Refunding Revenue Bonds, Series 2010B (the “2010B Bonds” and together with the 2010A Bonds, the “Series 2010 Bonds”) to provide funds to (i) refund and defease all of the Outstanding principal amount of Miami-Dade County Expressway Authority (Florida) Toll System Revenue Bonds, Series 2000 (the “Refunded 2000 Bonds”), and (ii) pay certain costs associated with the issuance of the 2010B Bonds and refunding of the Refunded 2000 Bonds, including a portion of the premium for the Policy; and

**WHEREAS**, the Authority has covenanted in the Indenture to, among other things, enter into a Continuing Disclosure Agreement (as defined in the Indenture) with respect to the Series 2010 Bonds in order to facilitate compliance with Rule 15c2-12 of the United States Securities and Exchange Commission (the “Rule”);

**NOW, THEREFORE**, in consideration of the foregoing recitals and intending to be legally bound hereby, the Authority and the Trustee agree as follows:

Section 1. Purpose. This Agreement is being entered into for the benefit of the Owners (as defined in the Indenture) and the Beneficial Owners (as defined below) of the Series 2010 Bonds and in

order to assist the Participating Underwriters (as defined below) in complying with the Rule (as defined below).

Section 2.     Definitions. In addition to the definitions set forth in this Agreement, which apply to any capitalized term used in this Agreement, unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

“Annual Report” shall mean any Annual Report provided by the Authority pursuant to, and as described in, Section 4 of this Agreement.

“Beneficial Owner” shall mean any person which (i) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Series 2010 Bonds (including persons holding Series 2010 Bonds through nominees, depositories or other intermediaries), or (ii) is treated as the owner of any Series 2010 Bonds for federal income tax purposes.

“Disclosure Representative” means the Executive Director of the Authority or his or her designee, or such other person as the Authority shall designate in writing to the Dissemination Agent from time to time as the person responsible for providing information to the Dissemination Agent.

“Dissemination Agent” shall mean The Bank of New York Mellon Trust Company, N.A., acting in its capacity as Dissemination Agent hereunder, or any successor Dissemination Agent designated in writing by the Authority and which has filed with the Authority a written acceptance of such designation.

“Listed Events” shall mean any of the events listed in Section 5(a) of this Agreement.

“MSRB” means the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934.

“Obligated Person” shall mean, with respect to the Series 2010 Bonds, any person who either generally or through an enterprise fund or account of such person is committed by contract or other arrangement to support payment of all or a part of the obligations of the Series 2010 Bonds (other than providers of municipal bond insurance, letters of credit or other liquidity facilities).

“Official Statement” means that Official Statement prepared in connection with the sale and issuance of the Series 2010 Bonds.

“Participating Underwriter” shall mean any of the original underwriters of the Series 2010 Bonds required to comply with the Rule in connection with the offering of the Series 2010 Bonds.

“Rule” shall mean Rule 15c2-12 adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

Section 3.     Provision of Annual Reports.

(a) The Authority shall, not later than 180 days after the end of the Authority’s fiscal year, commencing with the report for the Authority’s fiscal year ending June 30, 2010, provide to the Dissemination Agent, together with a copy for the Trustee, an electronic copy of the Annual Report which is consistent with the requirements of Section 4 of this Agreement. The Annual Report may be submitted as a single document or as separate documents comprising a package, and may cross-reference other information as provided in Section 4 of this Agreement; provided that the audited financial statements of the Authority may be submitted separately from the balance of the Annual Report and later than the date

required above for the filing of the Annual Report if they are not available by that date. If the fiscal year of the Authority shall change, the Authority shall give notice of such change in the same manner as for a Listed Event under Section 5(f) of this Agreement.

(b) Promptly upon receipt by the Dissemination Agent of an electronic copy of the Annual Report from the Authority, and in any event within 210 days after the end of each fiscal year of the Authority, the Dissemination Agent shall provide an Annual Report to the Trustee, to the MSRB at <http://emma.msrb.org/> and, upon written request therefrom, to any Beneficial Owner of the Series 2010 Bonds. Additionally, in the event that unaudited financial statements of the Authority were included in any Annual Report in accordance with Section 4 below, then immediately, and in any event within three (3) business days, upon receipt by the Dissemination Agent from the Authority of an electronic copy of the Authority's audited financial statements, the Dissemination Agent shall provide a copy of such audited financial statements to the Trustee, to the MSRB at <http://emma.msrb.org/> and, upon written request therefrom, to any Beneficial Owner of the Series 2010 Bonds.

(c) If the Dissemination Agent has not received an electronic copy of the Annual Report by the date specified in clause (a) above, the Dissemination Agent shall contact the Authority by telephone and in writing (which may be by e-mail) to remind the Authority of its undertaking to provide the Annual Report pursuant to Section 3(a) of this Agreement. Upon such reminder, the Disclosure Representative shall either (i) provide the Dissemination Agent with an electronic copy of the Annual Report no later than two (2) business days prior to the date on which the Annual Report is required to be provided to the MSRB pursuant to clause (b) above, or (ii) instruct the Dissemination Agent in writing that the Authority will not be able to file the Annual Report within the time required under this Disclosure Agreement, state the date by which the Annual Report for such year will be provided and instruct the Dissemination Agent to immediately send a notice to the MSRB in substantially the form attached as Exhibit A. If the Dissemination Agent has not received an Annual Report by 12:00 noon on the first business day following the date on which the Annual Report is required to be provided to the MSRB pursuant to clause (b) above, then the Authority irrevocably directs the Dissemination Agent to immediately send a notice to the MSRB in substantially the form attached as Exhibit A.

(d) The Dissemination Agent shall (i) determine each year prior to the date for providing the Annual Report the address of the MSRB; and (ii) if the Dissemination Agent is other than the Authority, file a report with the Authority certifying that the Annual Report has been provided pursuant to this Agreement and stating the date it was provided to the MSRB.

(e) All documents, reports, notices, statements, information and other materials provided to the MSRB under this Section shall be provided in an electronic format and accompanied by identifying information as prescribed by the MSRB.

Section 4. Content of Annual Reports. The Annual Report, commencing with the Annual Report for the Authority's fiscal year ending June 30, 2010, shall contain or include by reference the audited financial statements of the Authority for the prior fiscal year prepared in accordance with generally accepted accounting principles as promulgated from time to time by the Financial Accounting Standards Board. If such audited financial statements are not available by the time the Annual Report is required to be filed pursuant to Section 3(b) of this Agreement, the Annual Report shall contain unaudited financial statements in a format similar to the audited financial statements and the audited financial statements shall be filed in the same manner as the Annual Report when they become available. The Authority shall also include in each Annual Report in tabular form a description of historical toll rates by vehicle class and a five-year toll revenue and expense summary. The Authority shall also include in each Annual Report a description of any on-going or planned capital improvements with respect to the System. Any or all of the items listed above may be included by specific reference to other documents, including



official statements of debt issues with respect to which the Authority is an Obligated Person which have been filed with the MSRB and reports regarding the Authority which have been filed with the Securities and Exchange Commission or MSRB. If the document included by reference is a final official statement, it must be available from the MSRB. The Authority shall clearly identify each such other document so included by reference.

Section 5.      Reporting of Significant Events.

(a)      Pursuant to the provisions of this Section 5, the Dissemination Agent shall give, or cause to be given, in a timely manner to the Trustee, the Authority (if requested) and the MSRB notice of the occurrence of any of the following events with respect to the Series 2010 Bonds, if material:

- (i)      Principal and interest payment delinquencies;
- (ii)      Non-payment related defaults;
- (iii)      Unscheduled draws on debt service reserves reflecting financial difficulties;
- (iv)      Unscheduled draws on credit enhancement reflecting financial difficulties;
- (v)      Substitution of credit or liquidity providers, or their failure to perform;
- (vi)      Adverse tax opinions or events affecting the tax-exempt status of the Series 2010 Bonds;
- (vii)      Modifications to rights of security holders;
- (viii)      Bond calls (but not scheduled redemptions of Series 2010 Bonds from sinking funds);
- (ix)      Defeasances;
- (x)      Release, substitution or sale of property securing repayment of the Series 2010 Bonds; and
- (xi)      Rating changes.

(b)      The Dissemination Agent shall, within one (1) Business Day of obtaining actual knowledge of the occurrence of any of the Listed Events (except events listed in subclauses (i), (viii) or (ix)), contact the Disclosure Representative, inform him or her of the event, and request that the Authority promptly notify the Dissemination Agent in writing whether or not to report the event pursuant to clause (f) below.

(c)      Whenever the Authority obtains knowledge of the occurrence of a Listed Event, because of a notice from the Dissemination Agent pursuant to clause (b) immediately above or otherwise, the Authority shall as soon as possible determine whether such event would constitute material information for Owners and Beneficial Owners of the Series 2010 Bonds. The Authority may consult with its consultants, counsel and advisors as to whether any Listed Event constitutes material information

for Owners and Beneficial Owners of the Series 2010 Bonds and reflects financial difficulty, if appropriate.

(d) If the Authority has determined that knowledge of the occurrence of a Listed Event would be material, the Authority shall promptly notify the Dissemination Agent in writing. Such notice shall instruct the Dissemination Agent to report the occurrence pursuant to clause (f).

(e) If in response to a request under clause (b), the Authority determines that the Listed Event would not be material, the Authority shall so notify the Dissemination Agent in writing, giving the reason that the Listed Event is not material, and shall instruct the Dissemination Agent not to report the occurrence pursuant to clause (f) below.

(f) If the Dissemination Agent has been instructed by the Authority to report the occurrence of a Listed Event, the Dissemination Agent shall promptly file a notice of such occurrence with the MSRB and send a copy of any notice so filed to the Authority. Notwithstanding the foregoing, notice of Listed Events described in subclauses (viii) and (ix) need not be given under this clause any earlier than the notice (if any) that the underlying event is given to Owners of affected Series 2010 Bonds pursuant to the Indenture.

Section 6. Termination of Reporting Obligation. The Authority's obligations under this Agreement shall terminate upon the legal defeasance, prior redemption or payment in full of all of the Series 2010 Bonds, when the Authority is no longer an Obligated Person with respect to the Series 2010 Bonds, or upon the termination of the continuing disclosure requirements of the Rule by legislative, judicial or administrative action. If the Authority's obligations under the Indenture are assumed in full by some other entity, such entity shall be responsible for compliance with this Agreement in the same manner as if it were the Authority and the original Authority shall have no further obligations hereunder so long as, but solely to the extent that, the Authority delivers a written assumption by such Person of the Authority's obligations under this Agreement, in form and substance satisfactory to the Dissemination Agent. If such termination or substitution occurs prior to the final maturity of the Series 2010 Bonds, the Authority shall give notice of such termination or substitution in the same manner as for a Listed Event under Section 5(f).

Section 7. Dissemination Agent. The Authority may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Agreement, and may discharge any such Agent, with or without appointing a successor Dissemination Agent. The Authority may, upon fifteen (15) days' prior written notice to the Dissemination Agent and the Trustee, remove, replace or appoint a successor Dissemination Agent. The Dissemination Agent may resign at any time by providing thirty (30) days' prior written notice to the Authority. Upon resignation or removal of the Dissemination Agent, the Authority agrees to appoint a successor Dissemination Agent or, alternately, agrees to assume all responsibilities of Dissemination Agent under this Agreement for the benefit of the Holders of the Series 2010 Bonds.

Section 8. Amendment; Waiver. Notwithstanding any other provision of this Agreement, the Authority and the Dissemination Agent may amend this Agreement and any provision of this Agreement may be waived, provided that the following conditions are satisfied:

(a) If the amendment or waiver relates to the provisions of Section 3(a), 4, or 5(a), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of an Obligated Person with respect to the Series 2010 Bonds, or the type of business conducted;

(b) The undertaking, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the Series 2010 Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver either (i) is approved by the Owners or Beneficial Owners of the Series 2010 Bonds in the same manner as provided in Section 11.02 of the Indenture for amendments to the Indenture with the consent of Owners, or (ii) does not, in the opinion of the Dissemination Agent or nationally recognized bond counsel, materially impair the interests of the Owners or Beneficial Owners of the Series 2010 Bonds.

In the event of any amendment or waiver of a provision of this Agreement, the Authority shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or, in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented with respect to the Authority. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, notice of such change shall be given in the same manner as for a Listed Event under Section 5(f), and the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

Section 9. Additional Information. Nothing in this Agreement shall be deemed to prevent the Authority from disseminating any other information, using the means of dissemination set forth in this Agreement or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is required by this Agreement. If the Authority chooses to include any information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is specifically required by this Agreement, the Authority shall have no obligation under this Agreement to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

Section 10. Default. In the event of a failure of the Authority or the Dissemination Agent to comply with any provision of this Agreement, the Dissemination Agent may (and, at the request of any Participating Underwriter or the Owners of at least 25% aggregate principal amount of Outstanding Series 2010 Bonds, shall), or any Owner or Beneficial Owner of the Series 2010 Bonds may take such actions as may be necessary and appropriate, including seeking mandamus or specific performance by court order, to cause the Authority or the Dissemination Agent, as the case may be, to comply with its obligations under this Agreement. A default under this Agreement shall not be deemed an Event of Default under the Indenture, and the sole remedy under this Agreement in the event of any failure of the Authority or the Dissemination Agent to comply with this Agreement shall be an action to compel performance. Any such action shall be commenced only in a court of competent jurisdiction, be it federal or state, located in Miami-Dade County, Florida.

Section 11. Duties; Immunities and Liabilities of Dissemination Agent. As to the obligations of the Dissemination Agent hereunder, Article VIII of the Indenture is hereby made applicable to this Agreement as if this Agreement were (solely for this purpose) contained in the Indenture and as if the Dissemination Agent were the Trustee. The Dissemination Agent shall not be responsible in any manner for the content of any notice or report prepared by the Authority pursuant to this Agreement. The Dissemination Agent shall have only such duties as are specifically set forth in this Agreement, and the Authority agrees, to the extent permitted by law, to indemnify and save the Dissemination Agent, its officers, directors, employees and agents, harmless against any loss, expense and liabilities which it may

incur arising out of or in the exercise or performance of its powers and duties hereunder, including the reasonable costs and expenses (including reasonable attorneys fees) of defending against any claim of liability, but excluding liabilities due to the Dissemination Agent's negligence or willful misconduct. The obligations of the Authority under this Section 11 shall survive resignation or removal of the Dissemination Agent and payment of the Series 2010 Bonds.

Section 12. Notices. Any notices or communications to or among any of the parties to this Agreement shall be given in the manner provided in Section 14.02 of the Indenture.

Section 13. Beneficiaries. This Agreement shall inure solely to the benefit of the Authority, the Dissemination Agent, the Participating Underwriters, and Owners and Beneficial Owners from time to time of the Series 2010 Bonds, and shall create no rights in any other person or entity.

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IN WITNESS WHEREOF, the parties have executed this Continuing Disclosure Agreement by their duly authorized officers as of the date and year first written above.

Signatures:

MIAMI-DADE COUNTY EXPRESSWAY  
AUTHORITY

[SEAL]

By: \_\_\_\_\_  
Marie T. Schafer  
Director of Finance/Chief Financial Officer

Attest:

\_\_\_\_\_  
Secretary

THE BANK OF NEW YORK MELLON TRUST  
COMPANY, N.A., as Dissemination Agent

By: \_\_\_\_\_  
Cynthia M. Moore  
Vice President

**EXHIBIT A**

**NOTICE OF FAILURE TO FILE ANNUAL REPORT**

Name of Issuer: Miami-Dade County Expressway Authority

Name of Bond Issue: Toll System Revenue and Refunding Revenue Bonds, Series 2010A [and Toll System Refunding Revenue Bonds, Series 2010B]

Date of Issuance: August 18, 2010

Name of Obligated Person: Miami-Dade County Expressway Authority

NOTICE IS HEREBY GIVEN that the Obligated Person listed above has not provided an Annual Report with respect to the above-named Bonds as required by Section 3 of the Continuing Disclosure Agreement dated August 18, 2010 of the Obligated Person. The Obligated Person anticipates that the Annual Report will be filed by \_\_\_\_\_.

Dated: \_\_\_\_\_

[DISSEMINATION AGENT], as Dissemination Agent, on behalf of the Issuer.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

cc: Miami-Dade County Expressway Authority  
The Bank of New York Mellon Trust Company, N.A., as Trustee

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## **APPENDIX G**

### **FORM OF OPINION OF CO-BOND COUNSEL**



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## APPENDIX G

### FORM OF OPINION OF CO-BOND COUNSEL

On the date of issuance of the Series 2010 Bonds in definitive form, Greenberg Traurig, P.A. and Edwards & Associates, P.A., Co-Bond Counsel, propose to deliver their respective approving opinions in substantially the following form:

\_\_\_\_\_, 2010

Miami-Dade County Expressway Authority  
3790 N.W. 21<sup>st</sup> Street  
Miami, Florida 33142

\$395,590,000  
Miami-Dade County Expressway Authority  
Toll System Revenue and Refunding Revenue Bonds, Series 2010A  
and  
\$17,120,000  
Miami-Dade County Expressway Authority  
Toll System Refunding Revenue Bonds, Series 2010B

Ladies and Gentlemen:

We have acted as Co-Bond Counsel in connection with the issuance by Miami-Dade County Expressway Authority (the “Authority”), of its \$395,590,000 Miami-Dade County Expressway Authority Toll System Revenue and Refunding Revenue Bonds, Series 2010A (the “Series 2010A Bonds”) and its \$17,120,000 Miami-Dade County Expressway Authority Toll System Refunding Revenue Bonds, Series 2010B (the “Series 2010B Bonds”) and together with the Series 2010A bonds, the “Series 2010 Bonds”). The Series 2010 Bonds are being issued pursuant to (i) the Constitution and laws of the State of Florida, including particularly Chapter 348, Florida Statutes, as amended, and other applicable provisions of Florida law (collectively, the “Act”); (ii) Resolution No. 10-01 (the “Resolution”), duly adopted by the Authority on June 29, 2010; and (iii) the Amended and Restated Trust Indenture dated as of June 15, 2002 (the “Amended and Restated Indenture”), as previously supplemented and amended and as further supplemented by the Sixth Supplemental Trust Indenture to Amended and Restated Trust Indenture dated as of August 1, 2010 (together with the Amended and Restated Indenture, the “Indenture”), each by and between the Authority and The Bank of New York Mellon Trust Company, N.A. (successor in trust to The Bank of New York), as trustee. Capitalized terms used, but not defined, in this opinion have the meanings assigned thereto in the Indenture.

The Series 2010 Bonds are dated, bear interest, mature and are subject to redemption at the times and in the manner and on the terms, and contain such other terms and provisions as are specified in the Indenture. The Series 2010A Bonds are being issued as Additional Bonds and Refunding Bonds under the Indenture, to provide funds to (i) pay a portion of the Cost of certain Improvements to the System included within the Five Year Work Program of the Authority as in effect from time to time, including capitalized interest (the “Series 2010 Project”), (ii) refund and defease all of the Outstanding principal amount of Miami-Dade County Expressway Authority Toll System Refunding Revenue Bonds, Series 2004A (the “Refunded Series 2004A Bonds”), (iii) reimburse the Authority for Hedge Charges paid in connection with the termination of the Hedge Agreement with respect to the Refunded Series 2004A

Bonds, (iv) fund a deposit to the Debt Service Reserve Fund in an amount equal to the increase in the Debt Service Reserve Fund Requirement resulting from the issuance of the Series 2010A Bonds, and (v) pay certain costs associated with the issuance of the Series 2010A Bonds and refunding of the Refunded Series 2004 Bonds, including a portion of the premium for the municipal bond insurance policy relating to the Series 2010 Bonds (the "Policy"). The Series 2010B Bonds are being issued as Refunding Bonds under the Indenture, to provide funds to (i) refund and defease all of the Outstanding principal amount of Miami-Dade County Expressway Authority (Florida) Toll System Revenue Bonds, Series 2000 (the "Refunded Series 2000 Bonds"), and (ii) pay certain costs associated with the issuance of the Series 2010B Bonds and refunding of the Refunded Series 2000 Bonds, including a portion of the premium for the Policy. In delivering this opinion, we have examined the transcript of proceedings (the "Transcript") relating to the issuance of the Series 2010 Bonds and such other proceedings and matters of law as we have deemed relevant to the opinions expressed below. The Transcript documents include, among other things, a conformed counterpart of the Indenture, a certified copy of the Resolution and an executed or facsimile of each of the Series 2010 Bonds.

As to questions of fact material to our opinion, we have relied upon such certified proceedings and other certifications of public officials furnished to us without undertaking to verify the same by independent investigation.

Based on this examination, we are of the opinion that, under existing law:

1. The Authority is a body politic and corporate, a public instrumentality and an agency of the State of Florida validly created and existing under the laws of the State of Florida, and has all the requisite power and authority (a) to issue, sell and deliver the Series 2010 Bonds, and (b) to enter into the Indenture and to carry out the transactions contemplated by the Indenture.

2. The Series 2010 Bonds have been duly authorized and executed by the Authority and all conditions precedent in the Indenture to the delivery of the Series 2010 Bonds have been duly fulfilled. The Series 2010 Bonds have been delivered to the Bond Registrar for authentication, and, assuming that the Series 2010 Bonds have been duly authenticated by the Bond Registrar, the Series 2010 Bonds constitute valid and binding limited obligations of the Authority, subject to bankruptcy laws and other laws affecting creditors' rights and to the exercise of judicial discretion.

3. The Series 2010 Bonds are payable solely from the Trust Estate in accordance with the provisions of the Indenture and not from any other revenues, funds or assets of the Authority. The Indenture creates a valid and enforceable pledge of the Trust Estate and the Authority is not obligated to pay the Series 2010 Bonds or the interest thereon except from the Trust Estate. All the rights, title and interest of the Authority in and to the Trust Estate have been validly assigned and pledged to the Trustee under the Indenture. Neither the full faith and credit nor the taxing power of the State of Florida or any political subdivision thereof are pledged to the payment of the principal of and the interest on the Series 2010 Bonds.

4. Under existing statutes, regulations, rulings and court decisions, (a) interest on the Series 2010A Bonds is excludable from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations, and interest on the Series 2010A Bonds will not be taken into account in determining adjusted current earnings for the purpose of computing the alternative minimum tax imposed on certain corporations and (b) interest on the Series 2010B Bonds is excludable from gross income for federal income tax purposes and interest on the Series 2010B Bonds is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations; however, interest on the Series 2010B Bonds is taken into account in determining adjusted current earnings for the purpose of computing the

alternative minimum tax imposed on certain corporations. The issuance of the Series 2010 Bonds will not adversely affect the excludability of interest on any Bonds from gross income for federal income tax purposes. Except as otherwise set forth in this letter, we express no opinion regarding other federal tax consequences resulting from the ownership, receipt or accrual of interest on, or disposition of the Series 2010 Bonds.

In delivering the opinion expressed in paragraph 4 above, we have assumed continuing compliance by the Authority with the requirements of the Internal Revenue Code of 1986, as amended (the "Code") that must be met after the issuance of the Series 2010 Bonds in order that interest on the Series 2010 Bonds be, and continue to be, excludable from gross income for federal income tax purposes. The Authority has covenanted in the Indenture and the Arbitrage Certificate to comply with the requirements of the Code in order to maintain the excludability of interest on the Series 2010 Bonds from gross income for federal income tax purposes. The failure by the Authority to meet certain of such requirements may cause interest on the Series 2010 Bonds to be included in gross income for federal income tax purposes retroactively to the date of issuance of the Series 2010 Bonds.

5. The Series 2010 Bonds and the income thereon are not subject to taxation under the laws of the State of Florida, except as to estate taxes and taxes imposed by Chapter 220, Florida Statutes, on interest, income or profits on debt obligations owned by corporations, as defined therein.

Except as stated in paragraphs number 4 and 5 above, we express no opinion as to any other tax consequences regarding the Series 2010 Bonds.

This opinion is qualified to the extent that the enforceability of the Series 2010 Bonds, the Resolution and the Indenture, respectively, may be limited by general principles of equity which may permit the exercise of judicial discretion, and by bankruptcy, insolvency, moratorium, reorganization or similar laws relating to the enforcement of creditors' rights generally, now or hereafter in effect.

In rendering the foregoing opinions, we have assumed the accuracy and truthfulness of all public records and of all certifications, documents and other proceedings examined by us that have been executed or certified by public officials acting within the scope of their official capacities and have not verified the accuracy or truthfulness thereof.

We have also assumed the genuineness of the signatures appearing upon such public records, certifications, documents and proceedings.

We express no opinion herein as to the adequacy or accuracy of the Official Statement of the Authority pertaining to the offering of the Series 2010 Bonds, or with respect to any other document or agreement entered into by the Authority or by any other person in connection with the Series 2010 Bonds other than as expressed herein. We also express no opinion herein as to the compliance by the Authority or any other party involved in this financing, or the necessity of such parties complying, with any federal or state registration requirements or security statutes, regulations or rulings with respect to the offer and sale of the Series 2010 Bonds.

Our opinions expressed herein are predicated upon present laws, facts and circumstances, and we assume no affirmative obligation to update the opinions expressed herein if such laws, facts or circumstances change after the date hereof.

Respectfully submitted,

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## **APPENDIX H**

### **SPECIMEN MUNICIPAL BOND INSURANCE POLICY**

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## MUNICIPAL BOND INSURANCE POLICY

ISSUER:

Policy No.: -N

BONDS: \$ in aggregate principal amount of

Effective Date:

Premium: \$

ASSURED GUARANTY MUNICIPAL CORP. (FORMERLY KNOWN AS FINANCIAL SECURITY ASSURANCE INC.) ("AGM"), for consideration received, hereby UNCONDITIONALLY AND IRREVOCABLY agrees to pay to the trustee (the "Trustee") or paying agent (the "Paying Agent") (as set forth in the documentation providing for the issuance of and securing the Bonds) for the Bonds, for the benefit of the Owners or, at the election of AGM, directly to each Owner, subject only to the terms of this Policy (which includes each endorsement hereto), that portion of the principal of and interest on the Bonds that shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer.

On the later of the day on which such principal and interest becomes Due for Payment or the Business Day next following the Business Day on which AGM shall have received Notice of Nonpayment, AGM will disburse to or for the benefit of each Owner of a Bond the face amount of principal of and interest on the Bond that is then Due for Payment but is then unpaid by reason of Nonpayment by the Issuer, but only upon receipt by AGM, in a form reasonably satisfactory to it, of (a) evidence of the Owner's right to receive payment of the principal or interest then Due for Payment and (b) evidence, including any appropriate instruments of assignment, that all of the Owner's rights with respect to payment of such principal or interest that is Due for Payment shall thereupon vest in AGM. A Notice of Nonpayment will be deemed received on a given Business Day if it is received prior to 1:00 p.m. (New York time) on such Business Day; otherwise, it will be deemed received on the next Business Day. If any Notice of Nonpayment received by AGM is incomplete, it shall be deemed not to have been received by AGM for purposes of the preceding sentence and AGM shall promptly so advise the Trustee, Paying Agent or Owner, as appropriate, who may submit an amended Notice of Nonpayment. Upon disbursement in respect of a Bond, AGM shall become the owner of the Bond, any appurtenant coupon to the Bond or right to receipt of payment of principal of or interest on the Bond and shall be fully subrogated to the rights of the Owner, including the Owner's right to receive payments under the Bond, to the extent of any payment by AGM hereunder. Payment by AGM to the Trustee or Paying Agent for the benefit of the Owners shall, to the extent thereof, discharge the obligation of AGM under this Policy.

Except to the extent expressly modified by an endorsement hereto, the following terms shall have the meanings specified for all purposes of this Policy. "Business Day" means any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions in the State of New York or the Insurer's Fiscal Agent are authorized or required by law or executive order to remain closed. "Due for Payment" means (a) when referring to the principal of a Bond, payable on the stated maturity date thereof or the date on which the same shall have been duly called for mandatory sinking fund redemption and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by mandatory sinking fund redemption), acceleration or other advancement of maturity unless AGM shall elect, in its sole discretion, to pay such principal due upon such acceleration together with any accrued interest to the date of acceleration and (b) when referring to interest on a Bond, payable on the stated date for payment of interest. "Nonpayment" means, in respect of a Bond, the failure of the Issuer to have provided sufficient funds to the Trustee or, if there is no Trustee, to the Paying Agent for payment in full of all principal and interest that is Due for Payment on such Bond. "Nonpayment" shall also include, in respect of a Bond, any payment of principal or interest that is Due for Payment made to an Owner by or on behalf of the Issuer which has been recovered from such Owner pursuant to the



United States Bankruptcy Code by a trustee in bankruptcy in accordance with a final, nonappealable order of a court having competent jurisdiction. "Notice" means telephonic or telecopied notice, subsequently confirmed in a signed writing, or written notice by registered or certified mail, from an Owner, the Trustee or the Paying Agent to AGM which notice shall specify (a) the person or entity making the claim, (b) the Policy Number, (c) the claimed amount and (d) the date such claimed amount became Due for Payment. "Owner" means, in respect of a Bond, the person or entity who, at the time of Nonpayment, is entitled under the terms of such Bond to payment thereof, except that "Owner" shall not include the Issuer or any person or entity whose direct or indirect obligation constitutes the underlying security for the Bonds.

AGM may appoint a fiscal agent (the "Insurer's Fiscal Agent") for purposes of this Policy by giving written notice to the Trustee and the Paying Agent specifying the name and notice address of the Insurer's Fiscal Agent. From and after the date of receipt of such notice by the Trustee and the Paying Agent, (a) copies of all notices required to be delivered to AGM pursuant to this Policy shall be simultaneously delivered to the Insurer's Fiscal Agent and to AGM and shall not be deemed received until received by both and (b) all payments required to be made by AGM under this Policy may be made directly by AGM or by the Insurer's Fiscal Agent on behalf of AGM. The Insurer's Fiscal Agent is the agent of AGM only and the Insurer's Fiscal Agent shall in no event be liable to any Owner for any act of the Insurer's Fiscal Agent or any failure of AGM to deposit or cause to be deposited sufficient funds to make payments due under this Policy.

To the fullest extent permitted by applicable law, AGM agrees not to assert, and hereby waives, only for the benefit of each Owner, all rights (whether by counterclaim, setoff or otherwise) and defenses (including, without limitation, the defense of fraud), whether acquired by subrogation, assignment or otherwise, to the extent that such rights and defenses may be available to AGM to avoid payment of its obligations under this Policy in accordance with the express provisions of this Policy.

This Policy sets forth in full the undertaking of AGM, and shall not be modified, altered or affected by any other agreement or instrument, including any modification or amendment thereto. Except to the extent expressly modified by an endorsement hereto, (a) any premium paid in respect of this Policy is nonrefundable for any reason whatsoever, including payment, or provision being made for payment, of the Bonds prior to maturity and (b) this Policy may not be canceled or revoked. THIS POLICY IS NOT COVERED BY THE PROPERTY/CASUALTY INSURANCE SECURITY FUND SPECIFIED IN ARTICLE 76 OF THE NEW YORK INSURANCE LAW.

In witness whereof, ASSURED GUARANTY MUNICIPAL CORP. (FORMERLY KNOWN AS FINANCIAL SECURITY ASSURANCE INC.) has caused this Policy to be executed on its behalf by its Authorized Officer.

ASSURED GUARANTY MUNICIPAL CORP.  
(FORMERLY KNOWN AS FINANCIAL  
SECURITY ASSURANCE INC.)

By \_\_\_\_\_  
Authorized Officer

(212) 826-0100



