Subject to compliance by the Authority with certain covenants, in the opinion of Chapman and Cutler LLP, Chicago, Illinois, Bond Counsel, under present law, interest on the 2013A Bonds is excludable from gross income of the owners thereof for federal income tax purposes and is not included as an item of tax preference in computing the federal alternative minimum tax for individuals and corporations, but such interest is taken into account in computing an adjustment used in determining the federal alternative minimum tax for certain corporations. Interest on the 2013A Bonds is not exempt from present State of Illinois income taxes. See the heading "TAX MATTERS" herein for a more complete discussion.



#### \$500,000,000

#### THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY

Toll Highway Senior Revenue Bonds, 2013 Series A

Maturities, Principal Amounts, Interest Rates, Yields and CUSIP Numbers are shown on the Inside of the Front Cover

This Official Statement contains information relating to The Illinois State Toll Highway Authority (the "Authority") and the Authority's Toll Highway Senior Revenue Bonds, 2013 Series A (the "2013A Bonds"). The 2013A Bonds are being issued under an Amended and Restated Trust Indenture effective as of March 31, 1999 amending and restating a Trust Indenture dated as of December 1, 1985 (as amended, restated and supplemented, the "Indenture") from the Authority to The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "Trustee").

The 2013A Bonds will be issuable as fully registered bonds in the name of Cede & Co., as registered owner and nominee of The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the 2013A Bonds. Purchasers of the 2013A Bonds will not receive certificates representing their interests in the 2013A Bonds purchased. Principal of and interest on the 2013A Bonds will be paid by the Trustee to DTC, which in turn will remit such principal and interest payments to its participants for subsequent disbursement to the beneficial owners of the 2013A Bonds. As long as Cede & Co. is the registered owner as nominee of DTC, payments on the 2013A Bonds will be made to such registered owner, and disbursement of such payments to beneficial owners will be the responsibility of DTC and its participants. See **APPENDIX E – "BOOK-ENTRY SYSTEM"** herein.

The 2013A Bonds will mature on January 1 of the years and in the amounts and will bear interest at the rates per annum set forth on the inside cover page, payable on January 1 and July 1 of each year, commencing January 1, 2014. As described herein, the 2013A Bonds are subject to optional redemption prior to maturity and certain of the 2013A Bonds are subject to mandatory sinking fund redemption prior to maturity.

All Bonds issued under the Indenture, including the 2013A Bonds, are payable solely from and secured solely by a pledge of and lien on the Net Revenues (as defined herein) and certain other funds as provided in the Indenture. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2013A BONDS" herein.

THE 2013A BONDS AND ANY OTHER BONDS ISSUED UNDER THE INDENTURE DO NOT REPRESENT OR CONSTITUTE A DEBT OF THE AUTHORITY OR OF THE STATE OF ILLINOIS WITHIN THE MEANING OF ANY CONSTITUTIONAL OR STATUTORY LIMITATION OR PLEDGE OF THE FAITH AND CREDIT OF THE AUTHORITY OR OF THE STATE OF ILLINOIS, OR GRANT TO THE OWNERS OR HOLDERS THEREOF ANY RIGHT TO HAVE THE AUTHORITY OR THE ILLINOIS GENERAL ASSEMBLY LEVY ANY TAXES OR APPROPRIATE ANY FUNDS FOR THE PAYMENT OF THE PRINCIPAL THEREOF OR THE INTEREST THEREON, OTHER THAN AS MAY BE AUTHORIZED UNDER THE TOLL HIGHWAY ACT.

The 2013A Bonds are offered for delivery when, as and if issued and received by the Underwriters, subject to withdrawal and modification of the offer without notice and approval of legality by Chapman and Cutler LLP, Chicago, Illinois, Bond Counsel. Certain legal matters in connection with the 2013A Bonds will be passed upon for the Authority by David A. Goldberg, Esq., Assistant Attorney General and the Authority's General Counsel, and by the Authority's special counsel, Quarles & Brady LLP, Chicago, Illinois and for the Underwriters by their counsel, Michael Best & Friedrich LLP, Chicago, Illinois. Certain documents to which the Authority is a party will be approved as to form and constitutionality by the Attorney General of Illinois. It is expected that the 2013A Bonds in definitive form will be available for delivery to DTC on or about May 16, 2013.

J.P. Morgan

**Loop Capital Markets** 

**RBC Capital Markets** 

**Wells Fargo Securities** 

Cabrera Capital Markets, LLC
PNC Capital Markets LLC

KeyBanc Capital Markets Inc. Raymond James Mesirow Financial, Inc. US Bancorp

Dated: April 18, 2013

#### MATURITIES, PRINCIPAL AMOUNTS, INTEREST RATES, YIELDS, PRICES AND CUSIP NUMBERS

#### \$500,000,000 THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY Toll Highway Senior Revenue Bonds, 2013 Series A

Dated: Date of Delivery Due: January 1, as shown below

Maturity	Principal	Interest			
(January 1)	<b>Amount</b>	<u>Rate</u>	<u>Yield</u>	<b>Price</b>	$\underline{\mathbf{CUSIP}}^{\dagger}$
2027	\$ 13,605,000	5.000%	$2.860\%^{ ext{C}}$	$117.891\%^{\circ}$	452252GX1
2028	14,285,000	5.000	$2.970~^{\mathrm{c}}$	$116.882\ ^{\mathrm{C}}$	452252GY9
2029	15,000,000	5.000	$3.080~^{\mathrm{C}}$	$115.884\ ^{\mathrm{C}}$	$452252\mathrm{GZ}6$
2030	15,745,000	5.000	$3.160~^{\mathrm{C}}$	115.164 $^{\rm C}$	452252HA0
2031	16,535,000	5.000	$3.250~^{\mathrm{c}}$	$114.360\ ^{\rm C}$	452252HB8
2032	17,360,000	5.000	$3.300~^{\mathrm{C}}$	$113.917\ ^{\mathrm{C}}$	452252HC6
2033	18,230,000	5.000	$3.340~^{ m c}$	$113.564\ ^{\mathrm{C}}$	$452252\mathrm{HD4}$
2034	19,140,000	5.000	$3.390~^{\mathrm{C}}$	$113.124\ ^{\mathrm{C}}$	452252HE2
2035	20,100,000	5.000	$3.440~^{ m c}$	$112.686\ ^{\scriptscriptstyle \mathrm{C}}$	452252HF9

 $\$350,000,000\ 5.000\%\ Term\ Bonds\ due\ January\ 1,\ 2038,\ Yield\ 3.530\%^c;\ Price\ 111.903\%^c;\ CUSIP^\dagger\ 452252HG7$ 

<sup>&</sup>lt;sup>c</sup> Priced to first optional redemption date of January 1, 2023 at par.

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# THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY 2700 OGDEN AVENUE DOWNERS GROVE, ILLINOIS 60515-1703 (630) 241-6800

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This Official Statement, which includes the cover page and inside front cover page and appendices, is being used in connection with the offer and sale of the 2013A Bonds and may not be reproduced or be used, in whole or in part, for any other purpose. The information set forth herein is believed to be reliable but is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation of, the Underwriters. The Underwriters have provided the following sentence for inclusion in this Official Statement. Each Underwriter has reviewed the information in this Official Statement in accordance with and as part of its respective responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but no Underwriter guarantees the accuracy or completeness of such information. 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 information herein pertaining to the Authority and the Tollway System as of any time subsequent to the date of such information. No dealer, sales representative or any other person has been authorized by the Authority or the Underwriters to give any information or to make any representation other than as contained in this Official Statement in connection with the offering it describes and, if given or made, such other information or representation must not be relied upon as having been authorized by the Authority or the Underwriters. This Official Statement does not constitute an offer of any securities other than those described on the cover page or an offer to sell or a solicitation of an offer to buy in any jurisdiction in which it is unlawful to make such offer, solicitation or sale.

This Official Statement should be considered in its entirety. No information or portion of information in this Official Statement should be considered less important than any other by reason of its position in this Official Statement. Where statutes, ordinances, reports or other documents are referred to herein, reference should be made to such statutes, ordinances, reports or other documents for more complete information regarding the rights and obligations of parties thereto, facts and opinions contained therein and the subject matters thereof.

Neither this Official Statement nor any statement that may be made orally or in writing in connection therewith is to be construed as a contract with the registered or beneficial owners of the 2013A Bonds.

This Official Statement contains forecasts, projections and estimates that are based on current expectations or assumptions. If and when included in this Official Statement, the words "expects," "forecasts," "projects," "intends," "anticipates," "estimates," "assumes" and analogous expressions are intended to identify forward-looking statements, and any such statements inherently are subject to a variety of risks and uncertainties that could cause actual results to differ materially from those that have been projected. Such risks and uncertainties which could affect the amount of revenues received include, among others, changes in political, social and economic conditions, federal, state and local statutory and regulatory initiatives, litigation, seismic events, and various other events, conditions and circumstances, many of which are beyond the control of the Authority. These forward-looking statements include, but are not limited to, certain statements contained in the information contained under the captions "THE TOLLWAY SYSTEM" and in APPENDICES B and C and such statements speak only as of the date of this Official Statement. The Authority disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement contained herein to reflect any changes in the Authority's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

IN CONNECTION WITH THE OFFERING OF THE 2013A BONDS, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICE OF THE 2013A BONDS AT LEVELS ABOVE THE LEVELS THAT MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME WITHOUT NOTICE.

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND HAVE NOT BEEN APPROVED OR DISAPPROVED BY ANY FEDERAL OR STATE SECURITIES COMMISSION NOR HAS ANY FEDERAL OR STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS OFFICIAL STATEMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

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#### **OFFICIAL STATEMENT**

#### \$500,000,000

## THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY Toll Highway Senior Revenue Bonds, 2013 Series A

#### INTRODUCTORY STATEMENT

This Official Statement sets forth certain information concerning The Illinois State Toll Highway Authority (the "Authority"), the Tollway System (as defined herein) and the Authority's \$500,000,000 Toll Highway Senior Revenue Bonds, 2013 Series A (the "2013A Bonds"). The 2013A Bonds will be issued pursuant to the Toll Highway Act, 605 ILCS 10/1 et seq., as amended (the "Act"), creating the Authority, a resolution adopted by the Authority on December 13, 2012 authorizing up to \$1,000,000,000 aggregate principal amount of bonds for the purpose of paying costs of the *Move Illinois* Program described below, and a Fifteenth Supplemental Indenture dated as of May 1, 2013 (the "Fifteenth Supplemental Indenture"), supplementing and amending an Amended and Restated Trust Indenture effective as of March 31, 1999 amending and restating a Trust Indenture dated as of December 1, 1985 (the "Trust Indenture"), from the Authority to The Bank of New York Mellon Trust Company, N.A., as successor to J.P. Morgan Trust Company, N.A., and its predecessors, as Trustee (the "Trustee"), as previously supplemented and amended by the First through Fourteenth Supplemental Indentures and the 1996 Amendatory Supplemental Indenture dated as of September 1, 1996 (the "Amendatory Supplemental Indenture"). The Trust Indenture, as supplemented, amended and restated from time to time, including by the First through the Fifteenth Supplemental Indentures and the Amendatory Supplemental Indenture, is referred to herein as the "Indenture." Purchasers of the 2013A Bonds will be deemed to have consented to certain additional amendments to the Indenture set forth in the Fifteenth Supplemental Indenture. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2013A BONDS - Certain Amendments to the Indenture - Amendments Requiring Bondholder Consent" and APPENDIX D - "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE - Covenants -Sale, Lease or Encumbrance of Property."

Certain capitalized terms used in this Official Statement, unless otherwise defined herein, have the meanings set forth in APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Definitions."

The 2013A Bonds are being issued under the Indenture to provide funds that will be used, together with other available funds, to (a) pay certain costs of the Move Illinois Program described below, (b) make a deposit to the Debt Reserve Account for the Senior Bonds, and (c) pay costs of issuance in connection with the issuance of the 2013A Bonds. See "PLAN OF FINANCE" below.

The 2013A Bonds will be secured on a parity with other Senior Bonds of the Authority. The other outstanding Senior Bonds, in the aggregate principal amount of \$3,907,360,000, consist of the following: (a) \$134,400,000 aggregate principal amount Toll Highway Priority Refunding Revenue Bonds, 1998 Series A (the "1998A Bonds"), (b) \$123,100,000 aggregate principal amount Toll Highway Refunding Revenue Bonds, 1998 Series B (the "1998B Bonds"), (c) \$770,000,000 aggregate principal amount Toll Highway Senior Priority Revenue Bonds, 2005 Series A (the "2005 Bonds"), (d) \$291,660,000 aggregate principal amount Toll Highway Senior Priority Revenue Bonds, 2006 Series A-1 (the "2006 Bonds"), (e) \$350,000,000 aggregate principal amount Toll Highway Variable Rate Senior Priority Revenue Bonds, 2007 Series A-1 and \$350,000,000 aggregate principal amount Toll Highway Variable Rate Senior Priority Revenue Bonds, 2007 Series A-2 (collectively, the "2007 Bonds"), (f)

\$383,100,000 aggregate principal amount Toll Highway Variable Rate Senior Refunding Revenue Bonds, 2008 Series A-1 (the "2008A-1 Bonds") and \$95,800,000 aggregate principal amount Toll Highway Variable Rate Senior Refunding Revenue Bonds, 2008 Series A-2 (the "2008A-2 Bonds" and together with the 2008A-1 Bonds, the "2008A Bonds"), (g) \$350,000,000 aggregate principal amount Toll Highway Senior Priority Revenue Bonds, 2008 Series B (the "2008B Bonds"), (h) \$500,000,000 Toll Highway Senior Priority Revenue Bonds, Taxable 2009 Series A (Build America Bonds – Direct Payment) (the "2009A Bonds"), (i) \$280,000,000 Toll Highway Senior Priority Revenue Bonds, Taxable 2009 Series B (Build America Bonds – Direct Payment) (the "2009B Bonds"), and (j) \$279,300,000 Toll Highway Senior Refunding Revenue Bonds, 2010 Series A-1 (the "2010A Bonds"). After the issuance of the 2013A Bonds in an aggregate principal amount of \$500,000,000, the Senior Bonds, including the 2013A Bonds, will be outstanding in the aggregate principal amount of \$4,407,360,000.

All references herein to laws, agreements and documents are qualified in their entirety by reference to such laws, agreements and documents, and all references herein to the 2013A Bonds and the Indenture are further qualified in their entirety by reference to the complete terms thereof and the information with respect thereto in the Indenture.

#### PLAN OF FINANCE

In August, 2011, the Authority approved a fifteen-year \$12.1 billion capital improvement plan known as "Move Illinois: The Illinois Tollway Driving the Future" (the "Move Illinois Program") which established a guide for infrastructure and other capital investments to be made by the Authority beginning in 2012 through 2026, and also approved an increase in passenger vehicle toll rates effective January 1, 2012 and affirmed a previously approved increase in commercial vehicle toll rates, the primary portion of which will be phased in over January 1, 2015-2017, after which an annual inflator will be applied, beginning on January 1, 2018, based on the Consumer Price Index for All Urban Consumers. See "THE TOLLWAY SYSTEM – Toll Rates" herein. It is currently expected that the estimated \$12.1 billion of capital projects in the Move Illinois Program will be funded with approximately \$5 billion aggregate principal amount of additional indebtedness, including the 2013A Bonds, and the remainder to be funded by Authority funds. The Move Illinois Program is designed to fund necessary improvements to maintain the existing Tollway System in a state of good repair and fund new projects to enhance regional mobility. For additional detail on the projects included as part of the Move Illinois Program, see "THE TOLLWAY SYSTEM – Move Illinois Program" herein. Proceeds of the 2013A Bonds will be used to pay for a portion of the costs of the capital projects included in the Move Illinois Program.

The Authority expects to fund the capital projects in the Move Illinois Program with proceeds of the 2013A Bonds, proceeds of additional indebtedness and its own funds. The 2013A Bonds are being issued pursuant to the resolution adopted by the Authority on December 13, 2012 authorizing up to \$1 billion aggregate principal amount of senior lien bonds to fund a portion of the cost of the Move Illinois Program. The Authority expects to issue the remaining amount of bonds authorized by such resolution in the fourth quarter of 2013 or the first quarter of 2014. The Authority currently expects to issue an additional approximately \$2.2 billion of bonds during the years 2014-2016 and an additional approximately \$1.8 billion of bonds during the years 2020-2022. Amounts and timing are estimated and subject to change.

The Authority has authorized the issuance of up to \$570.7 million in aggregate principal amount of fixed rate refunding bonds to refund a portion of the Authority's \$1.302 billion of Series 1998B, 2007A and/or 2008A variable rate bonds. The resolutions authorizing such bonds also authorized the use of certain legally available funds of the Authority to pay costs of terminating swap agreements related to the variable rate bonds to be refunded, which authorization by its terms expires on December

31, 2013. In addition to refunding such variable rate bonds, the Authority also may consider replacement of one or more of its credit/liquidity providers or interest rate mode conversion.

The Authority has authorized the issuance of up to \$1 billion of refunding bonds to refund all or a portion of its Series 2005A and/or 2006A fixed rate bonds for purposes of producing debt service savings, which authorization by its terms expires on December 31, 2013.

The Authority may take action from time to time in the future to extend or supplement the authorizations described in the preceding paragraphs or adopt new authorizations for additional indebtedness.

Any of the additional indebtedness described in the preceding four paragraphs could be issued as either Senior Bonds or Junior Bonds, and the Authority may enter into hedging instruments in connection with the issuance of such Bonds. The Authority has entered into hedging agreements in connection with certain of its existing bonds. See "SWAP AGREEMENTS" herein. Issuance of additional indebtedness will be subject to compliance with the requirements for additional indebtedness set forth in the Indenture. See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Additional Indebtedness."

#### ESTIMATED SOURCES AND APPLICATIONS OF FUNDS

The estimated sources and applications of the 2013A Bonds and other available funds are set forth below:

#### **SOURCES**

Principal Amount of 2013A Bonds	\$500,000,000.00
Original Issue Premium	63,601,290.05
Total	\$563,601,290.05
APPLICATIONS	
Deposit to 2013A Construction Sub-Account	\$522,963,965.13
Deposit to Debt Reserve Account	38,435,903.58
Costs of Issuance <sup>(1)</sup>	2,201,421.34
Total	\$563,601,290.05

<sup>(1)</sup> Includes estimated costs of issuance and Underwriters' Discount.

#### **DESCRIPTION OF THE 2013A BONDS**

#### General

The 2013A Bonds will be issued in the aggregate principal amount of \$500,000,000, will be dated the date of issuance thereof, and will bear interest at the rates per annum shown on the inside front cover page hereof to the maturity dates shown on the inside front cover page hereof, subject to earlier redemption as set forth below.

#### Interest on the 2013A Bonds; Payment; Authorized Denominations

The 2013A Bonds shall bear interest at the rates per annum set forth on the inside front cover page hereof (computed on the basis of a 360-day year composed of twelve 30-day months), payable on each January 1 and July 1, commencing January 1, 2014.

The principal and Redemption Price of the 2013A Bonds shall be payable in lawful money of the United States of America upon surrender of such 2013A Bonds to the Trustee. Interest on the 2013A Bonds shall be payable by check or bank draft mailed or delivered by the Trustee to the Registered Owners as the same appear on the registration books of the Authority maintained by the Trustee as of the applicable Record Date or, in the case of a Registered Owner of \$1,000,000 or more in aggregate principal amount of bonds who so elects, by wire transfer of funds.

The 2013A Bonds will be issued in denominations of \$5,000 and integral multiples thereof (an "Authorized Denomination").

#### **Optional Redemption of 2013A Bonds**

The 2013A Bonds are subject to redemption at the option of the Authority on or after January 1, 2023, in whole or in part, and if in part in Authorized Denominations, and in any order of maturity or Sinking Fund Installments designated by the Authority, at a redemption price equal to 100% of the principal amount of the 2013A Bonds called for redemption plus accrued interest, if any, to the redemption date.

#### **Sinking Fund Redemption**

The 2013A Bonds maturing on January 1, 2038 are subject to mandatory sinking fund redemption pursuant to Sinking Fund Installments prior to their maturity at a redemption price equal to the principal amount thereof by application by the Trustee in accordance with the Indenture of funds on deposit to the credit of the Redemption Sub-Account. Subject to the availability of funds for transfer from the Interest Sub-Account and Redemption Sub-Account within the Debt Service Account and from the Debt Reserve Account under the Indenture, deposits to be applied to Sinking Fund Installments are to be made into the Redemption Sub-Account pursuant to the Indenture in amounts which will make possible the retirement of 2013A Bonds by sinking fund redemption on January 1, in the respective years and in the principal amounts as follows and as adjusted under the Indenture:

Redemption Date	Principal
(January 1)	Amount
2036	\$111,025,000
2037	116,575,000
2038 (maturity)	122,400,000

Available funds on deposit in the Redemption Sub-Account and Debt Reserve Account are required to be applied to the payment of Sinking Fund Installments; provided, that failure to retire the entire scheduled amount of 2013A Bonds through the application of any Sinking Fund Installment on or prior to the next scheduled Sinking Fund Installment date is not an Event of Default under the Indenture. Any amount of 2013A Bonds not so retired will be added to the amount to be retired on the next scheduled Sinking Fund Installment date for such 2013A Bonds. For a description of the application of funds on deposit in the Redemption Sub-Account to the payment of Sinking Fund Installments or the purchase of 2013A Bonds, see APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Flow of Funds – Debt Service Account."

#### Selection of Bonds for Redemption; Notice of Redemption

If less than all of the 2013A Bonds of a single maturity are to be redeemed, the particular 2013A Bonds or portions of 2013A Bonds to be redeemed shall be selected by the Trustee by lot in such manner as the Trustee may determine and shall be in a principal amount equal to an Authorized Denomination.

Notice of any redemption of 2013A Bonds will be given by the Trustee by registered or certified mail, postage prepaid, to the Registered Owner of any 2013A Bonds to be redeemed not fewer than 30 days prior to the redemption date. Neither failure to give notice by mail nor defect in any notice so mailed in respect of any 2013A Bond will affect the validity of any proceedings for redemption of any other 2013A Bonds with respect to which notice was properly given. No further interest will accrue on the principal of any 2013A Bonds properly called for redemption after the redemption date if payment of the Redemption Price thereof has been duly provided for, and the Registered Owners of such 2013A Bonds will have no rights with respect to such 2013A Bonds nor will they be entitled to the benefits of the Indenture except to receive payment of the Redemption Price thereof and unpaid interest accrued to the date fixed for redemption.

#### **Bond Registration and Transfers**

For a description of the procedure to transfer ownership of a 2013A Bond while in the book-entry only system, see **APPENDIX E** – "BOOK-ENTRY SYSTEM." Subject to the limitations described below, the 2013A Bonds are transferable upon surrender thereof at the Principal Office of the Trustee, accompanied by a written instrument or instruments of transfer in form satisfactory to the Trustee and duly executed by, the Bondholder or such Bondholder's attorney duly authorized in writing. Any 2013A Bond, upon surrender of such 2013A Bond at the Principal Office of the Trustee, shall be exchanged for an equal aggregate principal amount of 2013A Bonds of any Authorized Denomination of the 2013A Bond being surrendered. The Trustee may charge a fee sufficient to cover any tax, fee or other governmental charge in connection with any exchange or transfer of any Bond.

The Trustee is not required to make any transfer or exchange of any 2013A Bond during the period between each Record Date and the next succeeding interest payment date of such 2013A Bonds, or after such 2013A Bond has been called for redemption.

#### Mutilated, Lost, Stolen or Destroyed Bonds

If any 2013A Bond is mutilated, lost, stolen or destroyed, the Authority shall execute and the Trustee shall authenticate a new 2013A Bond; provided, however, that the Authority and the Trustee shall require satisfactory indemnification prior to authenticating a new 2013A Bond and the Trustee shall require satisfactory evidence of the ownership and the loss, theft or destruction of the affected 2013A Bond. The expense of issuing a substitute 2013A Bond in place of a mutilated, lost, stolen or destroyed 2013A Bond shall be borne by the Registered Owner.

#### SECURITY AND SOURCES OF PAYMENT FOR THE 2013A BONDS

The following is a summary of certain provisions of the Indenture relating to the 2013A Bonds and other Bonds issued under the Indenture. A more detailed summary of such provisions is included in APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE."

#### Pledge of Revenues and Funds

All Bonds issued under the Indenture, including the 2013A Bonds, are payable solely from and secured solely by a pledge of and lien on the Net Revenues of the Tollway System and certain other funds as provided in the Indenture.

THE 2013A BONDS AND ANY OTHER BONDS ISSUED UNDER THE INDENTURE DO NOT REPRESENT OR CONSTITUTE A DEBT OF THE AUTHORITY OR OF THE STATE OF ILLINOIS WITHIN THE MEANING OF ANY CONSTITUTIONAL OR STATUTORY LIMITATION OR PLEDGE OF THE FAITH AND CREDIT OF THE AUTHORITY OR THE STATE OF ILLINOIS, OR GRANT ANY RIGHT TO HAVE THE AUTHORITY OR THE ILLINOIS GENERAL ASSEMBLY LEVY ANY TAXES OR APPROPRIATE ANY FUNDS FOR THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST WITH RESPECT THERETO, OTHER THAN AS AUTHORIZED UNDER THE ACT. The Act provides that neither the directors of the Authority nor any person executing the 2013A Bonds shall be liable personally on the 2013A Bonds or be subject to any personal liability or accountability by reason of the issuance thereof.

#### **Toll Covenant**

The Authority covenants in the Indenture that in each Fiscal Year tolls will at all times be set so that Net Revenues will at least equal the Net Revenue Requirement for such Fiscal Year, comprised of the amount necessary to cure deficiencies, if any, in all debt service accounts and debt reserve accounts established under the Indenture, plus the greater of (i) the sum of Aggregate Debt Service (defined to include all debt service on Senior Bonds), the Junior Bond Revenue Requirement and the Renewal and Replacement Deposit for such period or (ii) 1.3 times the Aggregate Debt Service for such period. Under the Act, the Authority has the exclusive right to determine, fix, impose and collect tolls for the use of the Tollway System. Such tolls are required under the Act to be fixed at rates calculated to provide the lowest reasonable toll rates to provide funds that will be sufficient, together with other revenues of the Authority, to pay the costs of any authorized new construction and the reconstruction, major repairs or improvements to the Tollway System and the costs of operating and maintaining the Tollway System and paying debt service on all outstanding bonds. There is no other State of Illinois executive, administrative or regulatory body or regional or local governmental or regulatory body with the authority to limit or restrict such rates and charges.

#### **Certain Amendments to the Indenture**

Amendments Without Bondholder Consent. The Authority has approved certain amendments to the Indenture which will be included in the Fifteenth Supplemental Indenture and will: (a) clarify that the definition of Accountant, as defined in the Indenture, may include any firm of independent certified public accountants of recognized national standing who have been engaged by the Auditor General of the State of Illinois as provided in Section 23(f) of the Act to render auditing services with respect to the books and records of the Authority; and (b) increase the minimum construction contract size for which a contractor is required to furnish a performance bond or make a deposit with the Authority of marketable securities from \$50,000 to an amount equal to that from time to time provided by State law (currently, \$50,000), provided, that such minimum construction contract size will in no event be less than \$50,000 or greater than \$500,000. The amendments described in this paragraph will become effective upon execution of the Fifteenth Supplemental Indenture and receipt by the Authority of consent from the Trustee and certain Providers, but without consent of Bondholders.

Amendment Requiring Bondholder Consent. Each Supplemental Indenture of the Authority, beginning with the Seventh Supplemental Indenture through the Fifteenth Supplemental Indenture, amends the Indenture, subject to receipt of consent of (i) the owners of the requisite principal amount of Bonds Outstanding on the date of such consent (as described below) and (ii) certain Providers, to permit the Authority to sell or otherwise transfer all or a portion of the Tollway System (a "Transfer") upon delivery to the Trustee of, among other items, (i) an opinion of bond counsel to the effect that the Transfer complies with the provisions of the Act and the Indenture and will not cause interest on any Senior Bonds or Junior Bonds Outstanding immediately prior to the Transfer or on any Subordinated Indebtedness to become subject to Federal income taxation, (ii) evidence that the Transfer will not adversely affect the rating on any Bonds Outstanding immediately prior to the Transfer, (iii) a certificate of the Traffic Engineers estimating toll receipts for the portion of the Tollway System that has not been conveyed (the "Remaining Tollway System"), (iv) a certificate of the Consulting Engineers estimating Operating Expenses and Renewal and Replacement Deposits for the Remaining Tollway System, and (v) a certificate of the Authority based upon the certificates of the Traffic Engineers and the Consulting Engineers stating, among other things, that for the then current and each of the next ten Fiscal Years the Net Revenues allocable to the Remaining Tollway System will be not less than the greater of (A) one and one-half (1.5) times the Aggregate Debt Service and the Junior Bond Revenue Requirement (excluding, in each case, bond interest, the payment of which shall have been provided by payments or deposits from Bond proceeds) allocable to the Remaining Tollway System for each such Fiscal Year (the "Remaining Tollway System Debt Service") and (B) the sum of the Remaining Tollway System Debt Service and the Renewal and Replacement Deposit for each such Fiscal Year. See APPENDIX D - "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE - Covenants - Sale, Lease or Encumbrance of Property."

The amendment described in the preceding paragraph (the "Transfer Amendment") and more fully described in **APPENDIX D** shall not become effective until such time as the Authority has obtained the consents of (i) any Providers with respect to the Senior Bonds and Refunding Bonds outstanding at the time such consent is given, and (ii) the consents of the Holders of at least a majority in principal amount of the Senior Bonds and of at least a majority in principal amount of the Junior Bonds Outstanding at the time such consent is given. The Authority has not issued any Junior Bonds. The Authority has received the consent of the requisite bondholders but not the Providers. The Transfer Amendment is not yet effective. See **APPENDIX D** – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Supplemental Indentures."

EACH PURCHASER OF THE 2013A BONDS SHALL BE DEEMED TO HAVE CONSENTED TO THE TRANSFER AMENDMENT BY ITS PURCHASE OF THE 2013A BONDS.

#### **Flow of Funds**

The Authority covenants to deliver all Revenues (other than investment income, unless otherwise directed by the Indenture) to the Treasurer of the State of Illinois, within five Business Days after receipt, for deposit in the Revenue Fund. On or before the 20th day of each month the Treasurer, at the direction of the Authority, will transfer or apply the balance in the Revenue Fund not previously transferred or applied in the following order of priority:

First, to the Operating Sub-Account of the Maintenance and Operation Account;

Second, to the Operating Reserve Sub-Account of the Maintenance and Operation Account;

Third, to the Interest Sub-Account, Principal Sub-Account and Redemption Sub-Account of the Debt Service Account, in that order of priority, for deposits relating to the Senior Bonds;

Fourth, to the Provider Payment Sub-Account of the Debt Service Account to pay Costs of Credit Enhancement or Qualified Hedge Agreements for Senior Bonds or to reimburse Providers of Credit Enhancement or Qualified Hedge Agreements for Senior Bonds for payments of principal or interest made by such Providers and fees of such Providers and to make termination payments then due and owing with respect to any such Credit Enhancement or Qualified Hedge Agreements outstanding prior to the effective date of the Seventh Supplemental Indenture (June 22, 2005), which contained an amendment establishing the Termination Account (but no such deposit for any termination payment for a Qualified Hedge Agreement shall be made if there is any deficiency in the Debt Reserve Account);

Fifth, to the Debt Reserve Account;

Sixth, to any Junior Bond Debt Service Account or any Junior Bond Debt Reserve Account;

Seventh, to the Termination Payment Account to pay termination payments then due and owing with respect to Credit Enhancement and Qualified Hedge Agreements executed and delivered on or after the effective date of the amendment establishing the Termination Account (June 22, 2005);

Eighth, to the Renewal and Replacement Account;

Ninth, at the direction of the Authority, to the Improvement Account; and

Tenth, the balance of such amounts in the Revenue Fund, to the System Reserve Account.

The flow of funds is further described in **APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Flow of Funds."** 

#### **Debt Reserve Account**

The Indenture establishes one Debt Reserve Account for all outstanding Senior Bonds. Amounts on deposit in the Debt Reserve Account are required to be used by the Trustee to cure any

deficiencies arising from time to time in the Debt Service Account with respect to payment of interest or principal (including Sinking Fund Installments) on Senior Bonds.

Concurrently with the delivery of the 2013A Bonds, there will be on deposit in the Debt Reserve Account an amount sufficient to meet the Debt Reserve Requirement for the Senior Bonds. The Debt Reserve Requirement is the maximum annual Aggregate Debt Service for any Fiscal Year for all Outstanding Senior Bonds.

Under the Indenture, the Authority may deliver a surety bond, insurance policy, letter of credit or other credit facility meeting the requirements of the Indenture (a "Reserve Account Credit Facility") to the Trustee to meet all or a part of the Debt Reserve Requirement. For a description of the requirements of a Reserve Account Credit Facility, see APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Flow of Funds – Debt Reserve Account."

In connection with the issuance of the 2008B Bonds, the Authority applied funds in the Debt Reserve Account to obtain a surety bond qualifying under the Indenture as a Reserve Account Credit Facility from Berkshire Hathaway Assurance Corporation ("BHAC") in the stated amount of \$100,000,000 (the "BHAC Surety") to satisfy a portion of the Debt Reserve Requirement. The BHAC Surety is guaranteed by Columbia Insurance Company ("Columbia"), which is an affiliate of BHAC. Moody's Investors Service and Standard & Poor's, a Division of The McGraw-Hill Companies, currently rate each of BHAC and Columbia as "Aa1" and "AA+", respectively. A.M. Best Company ("A.M. Best") currently rates Columbia with a Financial Strength Rating of "A++" and an Issuer Credit Rating of "aaa," both of which are the highest A.M. Best ratings for those categories. A.M. Best does not rate BHAC.

Upon issuance of the 2013A Bonds, the applicable Debt Reserve Requirement will equal \$341,399,798. On the date of issuance of the 2013A Bonds, the aggregate amount of cash and permitted investments on deposit in the Debt Reserve Account, together with any surety bonds or other instruments constituting a Reserve Account Credit Facility, will be not less than the Debt Reserve Requirement.

In the event the balance in the Debt Reserve Account is less than the Debt Reserve Requirement, the Treasurer, at the direction of the Authority, is required to transfer monthly to such Account from the Revenue Fund, subject to certain prior transfers as described above under "SECURITY AND SOURCES OF PAYMENT FOR THE 2013A BONDS – Flow of Funds," the amount necessary to maintain the balance in the Debt Reserve Account equal to the Debt Reserve Requirement. In the event the amount to the credit of the Debt Reserve Account, including the amount of any Reserve Account Credit Facility, and after making any required reimbursement to a Provider of a Reserve Account Credit Facility, exceeds the Debt Reserve Requirement, the excess may be transferred as provided in the Indenture and summarized under APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Flow of Funds – Debt Reserve Account."

#### **Additional Indebtedness**

The Indenture permits the Authority to incur additional indebtedness, including Senior Bonds on a parity with the 2013A Bonds and other Outstanding Senior Bonds, Junior Bonds and Subordinated Indebtedness. Additional Senior Bonds may be issued for the purposes of (a) paying Costs of Construction of Projects (which include modifications and enhancements to the existing Tollway System, as well as System Expansion Projects and Renewal and Replacements), (b) refunding or prepaying at or prior to maturity Senior Bonds or any other obligations of the Authority issued or entered into for purposes for which Senior Bonds may be issued, (c) making deposits to the Debt Reserve Account or acquiring a Reserve Account Credit Facility, (d) paying interest on any Bond, (e) paying any

costs of issuing Senior Bonds, and (f) paying Costs of Credit Enhancement and Qualified Hedge Agreements for Additional Senior Bonds. The requirements relating to the incurrence of additional indebtedness are described in this Official Statement in APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Additional Indebtedness."

The Authority is also authorized by the Indenture to issue one or more series of Junior Bonds or Subordinated Indebtedness for any purpose for which Senior Bonds may be issued without satisfying the Additional Senior Bonds test.

#### **Other Covenants**

The Authority covenants in the Indenture not to (i) issue any bonds or other evidences of indebtedness (other than Senior Bonds, Junior Bonds and Subordinated Indebtedness) secured by a pledge of or lien on Net Revenues or the moneys, securities or funds set aside under the Indenture; (ii) create any lien or charge on Net Revenues or the moneys, securities or funds set aside under the Indenture except for (a) evidence of indebtedness payable from moneys in the Construction Fund as part of the Cost of Construction of any Project and (b) indebtedness payable solely from amounts in the System Reserve Account; or (iii) sell, lease or otherwise dispose of or encumber the Tollway System except as provided in the Indenture. See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Covenants – Sale, Lease or Encumbrance of Property." The Authority also covenants, among other things, to prepare an adequate annual budget, to operate the Tollway System in a sound and economical manner, to maintain the Tollway System, to maintain insurance and to keep proper books and records.

#### The Trustee

The Indenture contains provisions regarding the designation of a successor trustee by the Authority and the assumption by a successor without Authority action of the trusteeship resulting from the transfer of substantially all of the corporate trust business of the Trustee. See APPENDIX D—"SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE — Removal or Merger or Consolidation of Trustee."

The Indenture grants to the Trustee the right to act on behalf of the owners of the 2013A Bonds and other Outstanding Senior Bonds and any Outstanding Junior Bonds if an Event of Default occurs. The rights of owners of Bonds to bring direct action are limited as provided in the Indenture, but owners may bring direct action in the event of a default in the payment of Debt Service. See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Events of Default – Proceedings Brought By Trustee."

#### THE AUTHORITY

The Authority was created under the Act as an instrumentality and administrative agency of the State of Illinois to provide for the construction, operation, regulation and maintenance of a system of toll highways within the State of Illinois. Under the Act, on April 1, 1968, the Authority assumed all the obligations, powers, duties, functions and assets of its predecessor agency, The Illinois State Toll Highway Commission. The Act authorizes the issuance of revenue bonds for the purposes, among others, of financing expansions of the Tollway System and reconstruction of and improvements to the Tollway System, and authorizes the issuance of refunding bonds for the purpose of refunding any bonds of the Authority then outstanding at maturity or on any redemption date.

The Authority is empowered to enter into contracts; to acquire, own, use, lease, operate and dispose of personal and real property, including rights-of-way, franchises and easements; to establish and amend resolutions, by-laws, rules, regulations and to fix and revise tolls; to acquire, construct, relocate, operate, regulate and maintain the Tollway System; to exercise the power of eminent domain; and to contract for services and supplies, including services and supplies for the various patron service areas on the Tollway System.

#### **Board of Directors**

The Authority is governed by an 11-member Board of Directors that includes the Governor of Illinois and the Secretary of the Illinois Department of Transportation, *ex officio*. Nine directors are appointed by the Governor, with the advice and consent of the Illinois Senate, from the State at large with a goal of maximizing representation from the areas served by the Tollway System. These nine directors are appointed for a term of four years, or in the case of an appointment to fill a vacancy, the unexpired term. No more than five directors may be from the same political party. Of the directors appointed by the Governor, one is appointed by the Governor as Chair of the Authority. The current Chair, Paula Wolff, was initially appointed as a Director and Chair of the Authority on August 13, 2009.

The present directors, their terms of office and occupations are listed below.

NAME	INITIAL APPOINTMENT	EXPIRATION OF CURRENT TERM <sup>(1)</sup>	OCCUPATION
Governor Patrick J. Quinn, ex officio	_	_	Governor of the State of Illinois
Secretary Ann L. Schneider, ex officio	_	_	Secretary, Illinois Department of Transportation
Paula Wolff, Chair	August 13, 2009	May 1, 2013 <sup>(2)</sup>	Senior Executive, Chicago Metropolis 2020
James J. Banks	October 27, 1993	May 1, 2013	Attorney at Law
Terrence D'Arcy	October 28, 2011	May 1, 2015	President, D'Arcy Buick and GMC
David Gonzalez	October 28, 2011	May 1, 2015	Mayor, City of Chicago Heights
Mark Peterson	October 28, 2011	May 1, 2015	Senior Executive, Bridgeview Bank Group
Jeffrey Redick	October 28, 2011	May 1, 2015	Attorney at Law
James Sweeney	October 28, 2011	May 1, 2013	Vice Pres., Int'l Union of Operating Engs.
Carl O. Towns	December 4, 2002	May 1, 2013	Retired, Former Head of Human Resources, Ingersoll Milling Machine Company
Thomas Weisner	August 13, 2009	May 1, 2015	Mayor, City of Aurora

<sup>(1)</sup> In accordance with Public Act 97-582 effective August 26, 2011 (the "Effective Date"), a director appointed after the Effective Date shall not continue in office longer than 60 calendar days after the expiration of that term of office, unless reappointed and qualified in accordance with law.

#### **Principal Administrative Personnel**

The Board of Directors of the Authority appoints an Executive Director and employs certain other personnel to administer the Tollway System and implement its policies. The following individuals are the principal administrative personnel of the Authority:

Kristi Lafleur, Executive Director. Ms. Lafleur was appointed Executive Director of the Authority on April 2, 2010. Prior to joining the Authority, Ms. Lafleur served as the Deputy Chief for Economic Development and Recovery for Illinois Governor Pat Quinn where her duties included organizing and overseeing the State's inter-agency program alignment and the development and

<sup>(2)</sup> Most recent appointment predates the Effective Date. Upon expiration, may serve until resignation, reappointment or the appointment of a duly qualified successor.

implementation of reporting systems, procedures and community outreach for programs and projects utilizing Illinois' American Recovery and Investment Act programs. She has also served as the Governor's liaison for the State's economic development and transportation agencies, including the Authority. In addition, she has been serving as the Chair and Illinois appointee to the Midwest High-Speed Rail Steering Committee, a multi-state group appointed by eight Midwest Governors and the Mayor of Chicago, and serves on the Board of the International Bridge, Tunnel and Turnpike Association. Previously, she served as the Chief of Staff for the Illinois Department of Commerce and Economic Opportunity overseeing operations of the agency's \$1.5 billion annual budget. She also served as president of her own strategic consulting and management firm specializing in business development and urban health initiatives. Ms. Lafleur has a B.A. Degree from DePaul University.

Michael J. Colsch, Chief of Finance. Mr. Colsch has been Chief of Finance of the Authority since April, 2003. As Chief of Finance, Mr. Colsch has had a lead role in managing financing of the Authority's Congestion Relief Program which commenced in 2005. Prior to joining the Authority, Mr. Colsch was employed by the Illinois Bureau of the Budget and has been involved in major capital program planning and financing for over twenty years. He has managed the State's general obligation, Build Illinois, Illinois First and civic center bonding programs. Mr. Colsch has a M.A. Degree in Economics from Western Illinois University and a B.A. Degree in Economics from Loras College in Dubuque, Iowa.

David A. Goldberg, Assistant Attorney General and General Counsel to the Authority. Mr. Goldberg was appointed General Counsel of the Authority in February 2012. Prior to his appointment, from 2005-2011, Mr. Goldberg served as General Counsel to an international group of insurance underwriting companies which were owned by the Aon organization, and later the ACE Group of companies. These businesses included Combined Insurance Company of America, and its worldwide affiliates, Combined Life Insurance Company of New York, and Sterling Life Insurance Company. Mr. Goldberg was eventually appointed to the Board of Directors for each of these companies. From 2000-2005, he held the position of Executive Vice President and General Counsel of ChoiceParts, LLC, an automotive technology joint venture comprised of publicly held companies ADP, Reynolds and Reynolds and CCC Information Services. Mr. Goldberg began his legal career in 1993 at the law firm Sidley & Austin, where his practice included commercial litigation, insurance and reinsurance counseling, and corporate reorganization. He graduated from Washington University School of Law in 1993, and the University of Michigan in 1990.

Paul Kovacs, P.E., Chief Engineer. Mr. Kovacs has been Chief Engineer since November, 2007. As Chief Engineer of the Authority, Mr. Kovacs is responsible for the organization of the Engineering Department, including policies, procedures, and performance, to ensure the integrity and safety of the Tollway infrastructure and the implementation of the Move Illinois and Congestion-Relief Programs. He oversees a staff of engineers and consultants and manages the Engineering Department with a combined staff of approximately 500 employees. Mr. Kovacs joined the Authority in 1999. As Deputy Chief and Deputy Program Manager, he successfully managed the high profile conversion to open road tolling under extremely tight deadlines. Mr. Kovacs has also overseen much of the Tri-State and I-88 rehabilitation under the Congestion-Relief Program. Mr. Kovacs received his B.S. Degree in Civil Engineering from the University of Illinois – Champaign/Urbana. He is a Registered Professional Engineer in the States of Illinois and Michigan.

Michael Stone, Chief of Staff. Mr. Stone has been with the Authority since February 2011. Prior to joining the Authority, Mr. Stone served as the Chief Deputy Assessor/Chief of Staff for the Cook County, Illinois Assessor's Office and served in various capacities during his 8 year term, including as Chief Legal Counsel to the Cook County Assessor. His duties included advising the office on all matters of taxation, public policy, law, and capital planning and spending and serving on Mayor Richard

M. Daley's Task Force on Tax Reform, Assessor's designee to the State of Illinois' Committee on Property Tax Reform and the keystone leader of the John D. and Catherine T. MacArthur Foundation Preservation Compact Task Force. He was also elected as a director of the International Association of Assessing Officers, the premier 7,000 member international organization on property taxation. Previously, he was in private practice at the law firms of Kirkland & Ellis and Cotsirilos, Tighe and Streicker, where he specialized in transactional work and finance. He has a B.A. in Economics and Government from Harvard University and a J.D. from The University of Chicago Law School.

#### **Organizational Structure**

The Authority's organizational structure consists of 14 departments consisting of Administration, Business Systems, Communications, Diversity and Strategic Development, Executive Office and Directors, Engineering, Finance, Illinois State Police District 15, Information Technology, Inspector General, Internal Audit, Legal, Procurement and Toll Operations. The Executive Director manages the day-to-day operations of the Authority. Authority department chiefs report to the Executive Director. The Commander of District 15 of the State Police also reports to the Superintendent of the State Police, and the General Counsel to the Authority also reports to the Attorney General of the State of Illinois.

The Administration Department is responsible for the development and implementation of administrative policies and procedures and employee compliance therewith.

The Business Systems Department is responsible for overseeing the open road tolling system and collecting toll revenue from toll violators, assessing fines and imposing sanctions. The Business Systems Department's responsibilities also include the customer service associated with electronic toll collection.

The Communications Department is responsible for external and internal communications between the Authority and its constituents, including patrons, news media, elected and appointed officials, the general public and employees.

The Diversity and Strategic Development Department is responsible for increasing access to economic opportunities for disadvantaged, minority- and women-owned business enterprises in construction contracting, construction-related consulting and the supply of other goods and services.

The Executive Office and Directors Department manages Tollway affairs consistent with the Act.

The Engineering Department is responsible for the design, construction and maintenance of the roadway. It also coordinates with community groups, government agencies, and planning organizations on transportation and land-use policy.

The Finance Department is responsible for general accounting, budgeting, treasury functions, financial reporting, accounts payable, payroll, risk management and debt management. In addition, the Finance Department manages certain investments.

Illinois State Police District 15 is one of 21 districts of the Illinois State Police, responsible for providing comprehensive law enforcement services. The entire Tollway System comprises District 15. State police patrol the Tollway System to enforce speed limits and traffic laws, assist disabled motorists, and provide special details for operations, such as overweight vehicle enforcement.

The Information Technology Department is responsible for planning, directing, managing and controlling information technologies and telecommunications throughout the Authority.

The Inspector General's Office is responsible for investigating allegations of waste, inefficiencies, fraud, corruption, misconduct and mismanagement in the day-to-day operations of the Authority.

The Internal Audit Department recommends policies and procedures to ensure that the Authority's Board members and employees, contractors and/or vendors adhere to all state and federal laws and internal rules and regulations.

The Legal Department is a Bureau of the Office of the Attorney General of the State of Illinois. The Attorney General is, by law, the legal advisor and attorney for the Authority.

The Procurement Department is responsible for purchasing and procurement issues and is authorized to execute contracts and place orders for goods and services. Additionally, the Procurement Department is responsible for warehousing.

The Toll Operations Department is responsible for providing the necessary resources and services to maintain the Authority's toll operations and facilities, as well as managing the collection and counting of tolls.

#### **Labor Relations**

As of December 31, 2012, unions represent approximately 1,265 of the Authority's 1,471 employees. The Authority currently has a collective bargaining agreement through September 30, 2014 with the State and Municipal Teamsters, Chauffeurs, and Helpers Union Local 700, representing approximately 434 highway maintenance personnel (the "Teamsters"). In addition, the Authority has entered into two separate collective bargaining agreements with the Metropolitan Alliance of Police ("MAP 135 & 336") representing 25 employees. The MAP's Civilian Call Takers (19 employees) agreement was reached in 2011 and runs through October 31, 2014. The MAP's Telecommunicators (6 employees) contract is from May 1, 2010 through April 30, 2013. The Authority is just beginning the process of negotiating for a new contract with the Telecommunicators. The Authority also employs approximately 572 employees represented by the Service Employees International Union Local 73 ("SEIU"). The SEIU bargaining unit includes toll collectors; money room employees; and clerks, custodians, and warehouse workers. The current collective bargaining agreement with SEIU expired on December 31, 2012, and the Authority is in the process of negotiating a new contract with SEIU. The final group of employees, approximately 234 professional and non-professional white collar employees, is represented by the American Federation of State, County and Municipal Employees, Council 31 ("AFSCME" Local 3883) and their contract runs through December 31, 2013.

#### **Pensions**

Substantially all of the employees of the Authority participate in the State Employees' Retirement System ("SERS"), a pension plan funded by the State of Illinois (the "State"). SERS is a single-employer, public employee defined-benefit pension plan. SERS is governed by a 13 member Board of Trustees, consisting of the Illinois Comptroller, six trustees appointed by the Governor with the advice and consent of the Illinois Senate, four trustees elected by SERS members, and two trustees appointed by SERS retirees.

Under the Illinois Pension Code, as amended (the "Pension Code"), required contributions to fund SERS are calculated or determined by actuaries on an annual basis. The required contributions are computed in accordance with the Pension Code and a statutory funding plan that would increase the funding ratio of SERS to 90% of actuarial accrued liabilities as of June 30, 2045, which such funding plan does not conform with principles of the Governmental Accounting Standards Board (GASB). As of June 30, 2012, SERS funding ratio was 34.7% of actuarial accrued liabilities.

In addition to contributions made by employees, each year the Board of Trustees of SERS establishes an employer contribution rate, expressed as a percentage of payroll for the upcoming fiscal year based on the required contribution for that fiscal year, the estimated payroll of eligible employees, and the recommendations of the actuary. The employer contribution rates set by SERS for State fiscal years 2010-2014 are as follows.

Dates Applicable	Employer Contribution Rate
July 1, 2009 – June 30, 2010	28.377%
July 1, 2010 – June 30, 2011	27.988%
July 1, 2011 – June 30, 2012	34.190%
July 1, 2012 – June 30, 2013	37.987%
July 1, 2013 – June 30, 2014	40.312%

The employer contribution rate is currently projected by SERS to increase over time. As a result, the Authority's annual contributions to SERS are expected to increase and such increases may have a material impact on the Authority's finances. The Authority is unable to quantify the extent of such impact at this time.

Accordingly, the Authority contributes a percentage of salary or wages of each of its employees subject to coverage by SERS at the employer contribution rate. The Authority's contributions were \$30.3 million in 2010 and \$32.8 million in 2011. The Authority estimates that it contributed \$36.8 million in 2012. The Authority budgeted a contribution of \$41.5 million for 2013. The Authority's contributions to SERS are Operating Expenses of the Authority and, as such, are paid from the Maintenance and Operations Account. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2013A BONDS - Flow of Funds." For additional information, please see "Appendix A, Financial Statements, Note 12 – Contributions To State Employees' Retirement System".

Additional information regarding SERS, including the method by which SERS is funded, the funded status of SERS, and the actuarial methods and actuarial assumptions used in calculating the assets, liabilities and related pension funding statistics may be found in the Official Statement dated April 2, 2013 for the State of Illinois General Obligation Bonds, Series A of April 2013 and Taxable Series B of April 2013, provided, however, that the content of such Official Statement is not incorporated herein by such reference. Reference to the Official Statement of the State is made for the information and convenience of the reader of this Official Statement solely to assist in the evaluation of the Authority's future obligations to SERS. The Authority has not requested nor did the Authority obtain any consent from the State to include this reference. The information contained in the Official Statement of the State was provided by the State solely for the benefit of purchasers of its bonds described therein and was not provided to be relied upon by the purchasers of the 2013A Bonds. Additional information regarding SERS, including a review of SERS' funding, pension benefit provisions, changes in benefit provisions, employee eligibility requirements including eligibility for vesting, and the authority under which benefit provisions are established, are included in the SERS comprehensive annual financial report ("CAFR") for its fiscal year ended June 30, 2012. Also included therein is a discussion of employer and employee obligations to contribute and the authority under which those obligations are established. The SERS

CAFR is available on its website, http://srs.illinois.gov, or by request to State Employees Retirement System, 2101 S. Veterans Parkway, Springfield, Illinois 62794-9255. Neither the content of the SERS CAFR nor the SERS website is incorporated herein by reference.

#### **Other Post-Employment Benefits**

The State provides certain health, dental, vision and life insurance benefits (commonly referred to as "other post-employment benefits" or "OPEB") to certain retirees, including former Authority employees, and their dependents. Substantially all State employees, including Authority employees, may become eligible for OPEB benefits if they eventually become annuitants of one of the State sponsored pension plans, including SERS. Prior to State Fiscal Year 2013, the actuarially determined annual OPEB cost of providing these benefits and the related OPEB obligations were recorded in the financial statements of the Illinois Department of Healthcare and Family Services, which administered the health, dental, and vision benefits, and the Illinois Department of Central Management Services ("CMS"), which administered the life insurance benefits. The administrative responsibilities are expected to be transitioned completely to CMS by the end of Fiscal Year 2013. A summary of the OPEB provisions, including the authority under which such provisions are established, and OPEB funding and cost is included as an integral part of the State's CAFR, *provided, however*, that the content of such State CAFR is not incorporated herein by such reference.

As of December 31, 2012, 958 Authority retirees meet the eligibility requirements for OPEB. For the years ended December 31, 2010, 2011 and 2012, the Authority contributed \$4.3 million, \$4.9 million and \$5.0 million, respectively, towards the State's cost of these benefits. The Authority's contributions towards the State's costs of OPEB benefits are Operating Expenses of the Authority and, as such, are paid from the Maintenance and Operations Account.

#### THE TOLLWAY SYSTEM

The Tollway System presently consists of approximately 286 miles of limited access highway in twelve counties in the northern part of Illinois and is an integral part of the expressway system in northern Illinois and the U.S. Interstate Highway System. The entire Tollway System has been designated a part of the U.S. Interstate Highway System.

Since beginning operations in 1958, the Tollway System has served an important role in the development of the northern Illinois economy. During its initial operation, the Tollway System permitted rapid interstate travel between northern Illinois, Indiana and Wisconsin. As the suburban areas surrounding Chicago expanded throughout the 1960's and 1970's, the Tollway System evolved into primarily a commuter travel system, serving suburban Chicago and Chicago O'Hare International Airport. At the present time, the four routes of the Tollway System described below serve, among other areas, suburban Cook County and the Chicago area "collar counties," which together represent one of the fastest growing areas in Illinois in terms of population and employment.

#### **Routes**

The Tollway System is currently made up of four Tollways: the Jane Addams Memorial, the Tri-State, the Veterans Memorial and the Ronald Reagan Memorial.

The Jane Addams Memorial Tollway, formerly the Northwest Tollway, constituting a portion of U.S. Interstate Highway 90, is a 76-mile roadway. The Jane Addams Memorial Tollway begins east of the intersection of the Kennedy Expressway from downtown Chicago and the Tri-State Tollway in the vicinity of O'Hare International Airport, and extends to the west, crossing the Fox River

just north of Elgin, Illinois. From there it runs northwesterly to Rockford, Illinois, and then northerly to a point near the Illinois-Wisconsin border, where it feeds into the Wisconsin portion of U.S. Interstate Highway 90 leading to Madison, Wisconsin.

The Tri-State Tollway, constituting portions of U.S. Interstate Highways 80, 94 and 294 and including the 5-mile Edens Spur, is an 84-mile beltway around the Chicago metropolitan area. It extends from a point near the Indiana state line where it intersects with the Bishop Ford and the Kingery Expressways to a point near the Illinois-Wisconsin border, where it connects with U.S. Route 41 and U.S. Interstate Highway 94 from Milwaukee. The Tri-State also connects with the Ronald Reagan Memorial Tollway to the western suburbs, the Eisenhower Expressway to downtown Chicago, the Jane Addams Memorial Tollway to the northwest suburbs, the Kennedy Expressway to downtown Chicago, the north end of the Edens Expressway to the north shore suburbs and downtown Chicago, and the Stevenson Expressway to downtown Chicago. From its southern terminus the Tri-State Tollway has a direct connection to the Indiana Toll Road via the Kingery Expressway and U.S. Interstate Highway 80. The Tri-State Tollway is the most traveled Tollway in the Tollway System, accounting for approximately 37% of the transactions of the Tollway System.

The Veterans Memorial Tollway (Interstate 355), formerly the North-South Tollway, is a 30-mile highway generally paralleling Illinois Route 53 in DuPage and Will Counties between approximately the intersection of Army Trail Road and the U.S. Interstate Highway 290 spur in Addison on the north and U.S. Interstate Highway 80 (near Joliet) on the south. The Veterans Memorial Tollway, which opened in December 1989, is the newest addition to the Tollway System and consists of six through lanes along its entire length. The Veterans Memorial Tollway runs through or near the communities of Bolingbrook, Downers Grove, Naperville, Lombard, Glen Ellyn and Wheaton. A 12.5-mile south extension of the Veterans Memorial Tollway through Will County from U.S. Interstate Highway 55 to U.S. Interstate Highway 80 (the "South Extension") opened on November 12, 2007, increasing the size of the Veterans Memorial Tollway to 30 miles.

The Ronald Reagan Memorial Tollway, formerly the East-West Tollway, constituting a portion of U.S. Interstate Highway 88, covers 96.5 miles and begins east of the junction of the Tri-State Tollway and the Eisenhower Expressway and runs southwest and west, providing service to Oak Brook, Naperville, Aurora, DeKalb and Dixon, Illinois, ending at U.S. Route 30 in the Sterling/Rock Falls area. From U.S. Route 30, U.S. Interstate Highway 88 is a toll-free facility connecting to U.S. Interstate Highway 80 and the Quad Cities.

#### **Toll Collections**

At present, the Authority utilizes a combination of a barrier system and an open road tolling system for toll collection along its 286 miles of limited access roadway. The system consists of 22 mainline and 51 ramp toll plazas. All mainline plazas and two of the ramp plazas have attendants for motorists requiring change or receipts. The remaining 49 ramp plazas are unattended and automated and accept payment only in coins or through electronic toll collection as described below.

In addition to manned toll booths and automatic toll equipment, the Authority has installed an electronic toll collection system under the "I-PASS" service mark. I-PASS enables customers to pre-pay their tolls through an I-PASS account and have an electronic debit from their I-PASS account each time they go through a collection lane. The I-PASS customer's account is typically set up to replenish itself by a pre-determined amount from a credit card on file once it reaches a minimum balance. All toll collection lanes have I-PASS. In addition, special lanes dedicated to I-PASS users only are located throughout the Tollway System. The Authority currently operates 106 I-PASS open road tolling lanes that allow cars and trucks to travel through at the posted speed limit and 121 dedicated I-PASS Only

lanes that allow vehicles to pass through toll plazas at reduced speeds (5-30 mph). There are currently approximately 4.6 million I-PASS transponders outstanding, and approximately 86% percent of all toll transactions are I-PASS based.

The I-PASS system is designed to alleviate congestion and reduce travel times. I-PASS open road tolling lanes can process more than 2,000 vehicles per hour, compared to manual lanes at 350 vehicles per hour. As part of the Authority's Congestion-Relief Plan (described under "THE CAPITAL PROGRAM – The Congestion Relief Program"), the Tollway System was fully converted during 2005 and 2006 to an open road tolling system for I-PASS users.

In September, 2005 the Authority became a member of the E-ZPass Interagency Group (IAG). As a result, motorists in states that have E-ZPass transponders are able to use them to electronically pay tolls on the Tollway System and motorists with I-PASS transponders are able to use them to electronically pay tolls on highways and bridges that are part of the E-ZPass system. E-ZPass is currently in use on the toll facilities in the following fourteen states in addition to Illinois: Delaware, Indiana, Maine, Maryland, Massachusetts, North Carolina, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Virginia and West Virginia. In addition, the Chicago Skyway toll bridge is part of the E-ZPass system, which means that I-PASSes are accepted.

In order to ensure that the vehicles pay the tolls that they accrue, the Authority has implemented new technologies to improve enforcement. The Authority maintains an extensive violation enforcement system ("VES") which has resulted in revenue totaling approximately \$210.8 million from 2007 through 2011, and \$32.6 million (unaudited) for 2012 (see "FINANCIAL INFORMATION – Financial Information Discussion – *Toll Revenue Collection*"). VES employs in-ground technology which interfaces with the toll payment medium, either currency or electronically based, to determine whether the detected vehicle paid the proper toll. If the proper toll was not paid, a camera system snaps multiple digital photos of the vehicle plate. The plate is then cross-checked against the Illinois Secretary of State or appropriate out-of-state department of motor vehicles databases to identify the alleged violator. Non-gated toll lanes are fitted with VES cameras.

The Authority has statutory authority to fix, assess and collect civil fines against toll violators and to establish by rule a system of civil administrative adjudication to adjudicate alleged instances of toll violations, as detected by the Authority's violation enforcement system. The Authority has established fines for toll violations and an administrative adjudication process for adjudicating disputes relating to alleged toll violations. Under current practice, the Authority issues a Notice of Violation upon three unpaid tolls. The alleged violator can schedule an administrative hearing to challenge the violation. If the hearing officer, or the Circuit Court on administrative review, finds that a toll violation has occurred, or a judgment by default is entered, the amount of the unpaid toll plus a \$20 fine per violation is levied on the registered owner of the vehicle involved in the violation. Violators who do not pay the unpaid tolls and the \$20 fine per violation are subject to having their fine increased by \$50, to \$70 per violation. The Authority may refer violators who fail to pay their unpaid tolls and fines to the Office of the Secretary of State, which may revoke the violator's license plate registration and driving privileges.

The outside vendor which is responsible for most of the Authority's functions and services relating to electronic toll collection is Electronic Transaction Consultants Corp. ("ETC"). ETC's responsibilities include vehicle identification and classification technology; recording, storing and auditing toll transactions; electronic collection of toll revenue; and providing and managing the violation enforcement system and customer service system. ETC's contract with the Authority began June 29, 2005. The contract had a five-year initial term and five one-year renewal options. On May 26, 2012, the Authority exercised the third of the five one-year renewal options which extended the ETC contract until

June 30, 2013. The Tollway is in the process of procuring a new back office suite of applications for managing its I-PASS accounts and violations enforcement program. The new back office is expected to integrate with existing toll collection technology, upgrade customer service and billing capabilities and enhance processing, monitoring and financial reporting functionalities when the ETC contract expires (expected to be June 30, 2015).

#### **Toll Rates**

The Authority has undertaken five major toll adjustments and approved a sixth that is scheduled to begin to be implemented on January 1, 2015. The first major adjustment generally increased toll rates in 1963, the second generally decreased toll rates in 1970, the third increased toll rates in September, 1983 and the fourth increased toll rates in January, 2005. As a part of the fourth adjustment, the Tollway simplified the rate structure, reducing the defined classes of vehicles from ten classes to the four classes utilized today. Class 1 is a passenger car class and the other three classes are for commercial vehicles and consist of small, medium and large truck classes, generally classified by number of axles.

The fifth adjustment was approved by the Authority's Board in August of 2011 in conjunction with the authorization of the Move Illinois Program, and became effective on January 1, 2012 for passenger cars. The fifth adjustment increased passenger car tolls approximately 87%. The sixth adjustment was initially approved by the Authority's Board in November of 2008 and was confirmed in August of 2011 to become effective beginning on January 1, 2015. The sixth adjustment increases commercial vehicle toll rates by approximately 60%, with approximately two-thirds of such increase becoming effective on January 1, 2015, one-sixth of such increase becoming effective on January 1, 2016, and one-sixth of such increase becoming effective on January 1, 2017. The sixth adjustment also imposes an annual inflator based on the Consumer Price Index for All Urban Consumers to commercial vehicle toll rates on January 1, 2018 and every January 1st thereafter.

The Authority currently charges discounted rates for commercial vehicles during certain times and for passenger cars that utilize I-PASS instead of cash. Lower rates are charged for commercial vehicles using the Tollway System during overnight hours (10:00p.m. – 6:00a.m.) in order to help with congestion and expedite travel times. The daytime rates for the three commercial vehicle classes of large (Tier 4), medium (Tier 3) and small (Tier 2) are \$4.00, \$2.25 and \$1.50, respectively, at typical mainline plazas. The corresponding overnight (10:00p.m. – 6:00a.m.) rates are discounted to \$3.00, \$1.75 and \$1.00. In addition to overnight discounting for commercial vehicles, the Authority discounts toll rates for passenger cars that are I-PASS users paying electronically by 50% compared to passenger car users paying with cash. At half of the Tollway's mainline plazas, passenger car I-PASS users pay \$0.75, compared to \$1.50 for passenger car users paying with cash.

Table One sets forth the toll rates paid by various classes of motor vehicles at a typical mainline toll plaza for the periods shown.

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TABLE ONE

### ILLINOIS TOLLWAY TOLL RATES BY VEHICLE CLASS

Vehicl	e Class						2005 - 20	$011^{(1)(2)(3)}$	2012 - 2	$014^{(1)(2)(3)}$	2015	(1)(2)(3)	2016	(1)(2)(3)	2017	(1)(2)(3)
Current	Pre-2005	Description	1959-1963	1964-1970	1971-1983	1983-2004	Non- Discounted	Discounted	Non- Discounted	Discounted	Non- Discounted	Discounted	Non- Discounted	Discounted	Non- Discounted	Discounted
1	1	Automobile, motorcycle, taxi, station wagon, ambulance, single unit truck or tractor, two axles, four or less tires	\$0.30	\$0.35	\$0.30	\$0.40	\$0.80	\$0.40	\$1.50	\$0.75	\$1.50	\$0.75	\$1.50	\$0.75	\$1.50	\$0.75
2	2	Single unit truck or tractor, buses, two axles, six tires	\$0.40	\$0.45	\$0.30	\$0.50	\$1.50	\$1.00	\$1.50	\$1.00	\$2.10	\$1.40	\$2.25	\$1.50	\$2.40	\$1.60
3	3	Three axle trucks and buses	\$0.50	\$0.50	\$0.45	\$0.75	\$2.25	\$1.75	\$2.25	\$1.75	\$3.15	\$2.45	\$3.40	\$2.65	\$3.60	\$2.80
3	4	Trucks with four axles	\$0.50	\$0.60	\$0.60	\$1.00	\$2.25	\$1.75	\$2.25	\$1.75	\$3.15	\$2.45	\$3.40	\$2.65	\$3.60	\$2.80
3	7	Class 1 vehicle with one axle trailer	\$0.50	\$0.50	\$0.45	\$0.60	\$2.25	\$1.75	\$2.25	\$1.75	\$3.15	\$2.45	\$3.40	\$2.65	\$3.60	\$2.80
3	8	Class 1 vehicle with two axle trailer	\$0.50	\$0.60	\$0.60	\$0.80	\$2.25	\$1.75	\$2.25	\$1.75	\$3.15	\$2.45	\$3.40	\$2.65	\$3.60	\$2.80
4	5	Truck with five axles	\$0.50	\$0.75	\$0.75	\$1.25	\$4.00	\$3.00	\$4.00	\$3.00	\$5.60	\$4.20	\$6.00	\$4.50	\$6.40	\$4.80
4	6	Truck with six axles	\$0.50	\$0.90	\$0.90	\$1.50	\$4.00	\$3.00	\$4.00	\$3.00	\$5.60	\$4.20	\$6.00	\$4.50	\$6.40	\$4.80
4	9	Miscellaneous passenger car, special or unusual vehicles not classified above	\$0.50	\$0.90	\$1.00	\$1.40 <sup>(4)</sup>	\$4.00	\$3.00	\$4.00	\$3.00	\$5.60	\$4.20	\$6.00	\$4.50	\$6.40	\$4.80
4	10	Miscellaneous commercial vehicle, special or unusual vehicles not classified above				\$1.75 <sup>(4)</sup>	\$4.00	\$3.00	\$4.00	\$3.00	\$5.60	\$4.20	\$6.00	\$4.50	\$6.40	\$4.80

<sup>(1)</sup> The toll rates listed above are toll rates for half (11 of 22) of the mainline plazas on the existing Tollway System. Toll rates at the other 11 mainline plazas are higher by various amounts. For a complete listing of toll rates at each Tollway System plaza, please see Appendix A of APPENDIX C – "TRAFFIC ENGINEER'S REPORT." Toll rates on the Elgin O'Hare corridor are currently expected to begin to go into effect in 2017, and are currently estimated to be significantly higher, on a per-mile basis, than toll rates on the existing Tollway System. See Chapter Six of APPENDIX C – "TRAFFIC ENGINEER'S REPORT" for additional information on toll rate assumptions for the Elgin O'Hare corridor.

<sup>(2)</sup> Class 1 vehicles making payment via I-PASS are tolled at the discounted rate, and the non-discounted rate applies to cash forms of payment.

<sup>(3)</sup> Commercial vehicles (Classes 2-4) are tolled at a discounted rate during the overnight period of 10pm-6am whether paying by I-PASS or cash (the "Overnight Discount Rate"). Prior to January 1, 2009, commercial vehicles paying by I-PASS were tolled at the discounted rate for certain off-peak time periods (the "I-PASS Off-Peak Discount Rate"). This I-PASS Off-Peak Discount Rate expired on 12/31/2008. The Overnight Discount Rate continues. After year 2017, commercial vehicle toll rates will increase annually at approximately the rate of increase (if any) of the Consumer Price Index for All Urban Consumers.

<sup>(4)</sup> Class 9 rate was \$0.20 per axle for automobiles and Class 10 rate was \$0.25 per axle for trucks. Class 10 existed only from 1983-2004.

Under the Act, the Authority has the exclusive right to fix, adjust, revise and collect tolls for the use of the Tollway System. Such tolls are required to be fixed at rates calculated to provide the lowest reasonable toll rates to provide funds that will be sufficient, together with other revenues of the Authority, to pay the costs of any authorized new construction, operating and maintaining the Tollway System and paying debt service on Outstanding Bonds. The Authority may increase tolls by vote of a majority of its Board of Directors, after conducting a public hearing in each county in which the proposed increase is to take place. No other State of Illinois executive, administrative or regulatory body or regional or local governmental or regulatory body has the authority to limit or restrict such rates and charges.

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#### Historical Trends in Toll Transactions and Toll Revenues

Table Two sets forth annual toll transactions for passenger and commercial vehicles for selected years since 1964.

TABLE TWO

ANNUAL TOLL TRANSACTIONS – PASSENGER AND COMMERCIAL VEHICLES<sup>(1)</sup>

## 1964-2012 (SELECTED YEARS) (Transactions in thousands)

YEAR	PASSENGER	COMMERCIAL	TOTAL	% PASSENGER
1964	72,721	7,005	79,726	91.21
1969	146,476	14,488	160,964	91.00
1974	204,360	28,446	232,806	87.78
1979	268,051	42,606	310,657	86.29
1984	308,104	42,890	350,994	87.78
1989	428,745	57,193	485,938	88.23
1994	565,601	66,693	632,294	89.45
1999	648,269	71,835	720,104	90.02
2004	714,120	109,025	823,145	86.76
2005	695,378	85,068	780,446	89.10
2006	678,535	85,590	764,125	88.80
2007	696,055	92,237	788,292	88.30
2008	688,516	89,366	777,882	88.51
2009	694,837	80,516	775,353	89.62
2010	730,797	86,286	817,083	89.44
2011	743,195	89,633	832,828	89.24
$2012^{(2)}$	711,680	92,100	803,780	88.54

Source: Authority's Comprehensive Annual Financial Report for the Year Ended December 31, 2011 for the years 1964-2011.

In 2006, the Tollway permanently converted from bidirectional to one-way tolling at the Belvidere and Marengo Mainline Toll Plazas on the Jane Addams Memorial Tollway in conjunction with a doubling of the fares at those plazas. Due to this reconfiguration, total transactions were reduced by 14.6 million in 2006 with no localized revenue impact.

<sup>(1)</sup> In 2003, a new Integrated Toll Collection System was completed which classified vehicles by axle counts in relation to the toll paid by each vehicle. In 2004, commercial vehicle counts were inflated by the new classification system due to passenger vehicle overpayments at ramp plazas. Due to the toll increase in January 2005, the classification system has more accurately recorded passenger and commercial vehicle counts for 2005 and beyond. The Tollway estimates that about 50% of the decline in commercial vehicle transactions between 2004 and 2005 can be attributed to the over count of commercial vehicles and the corresponding under count of passenger vehicles in 2004.

<sup>&</sup>lt;sup>(2)</sup> 2012 figures are preliminary and unaudited.

Table Three sets forth annual toll revenues generated by passenger and commercial vehicles for selected years since 1964.

TABLE THREE

ANNUAL TOLL REVENUES – PASSENGER AND COMMERCIAL VEHICLES<sup>(1)</sup>

## 1964-2012 (SELECTED YEARS) (Dollars in thousands)

YEAR	PASSENGER	COMMERCIAL	TOTAL	% PASSENGER
1964	\$ 26,284	\$ 4,888	\$ 31,172	84.32
1969	46,872	8,803	55,675	84.19
1974	55,419	14,891	70,310	78.82
1979	73,048	24,068	97,116	75.22
1984	114,233	43,094	157,327	72.61
1989	155,394	57,387	212,781	73.03
1994	215,221	66,922	282,143	76.28
1999	259,448	73,178	332,626	78.00
2004	287,218	104,368	391,586	73.35
$2005^{(2)}$	341,352	239,090	580,442	58.81
2006	324,556	242,944	567,500	57.19
2007	321,008	251,085	572,093	56.11
2008	335,653	247,994	583,647	57.51
2009	334,520	257,544	592,063	56.50
2010	348,946	279,808	628,754	55.50
2011	354,186	298,488	652,674	54.27
$2012^{(2)(3)}$	614,770	307,620	922,390	66.65

Source: Authority's Comprehensive Annual Financial Report for the Year Ended December 31, 2011 for the selected years from 1964-2011.

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<sup>(1)</sup> See the footnote to Table 2 regarding change in traffic counts resulting from completion of the Integrated Toll Collection System.

Due to the changed rate structures implemented in 2005 and 2012, the percentage of revenues from commercial vehicles increased in 2005 and decreased in 2012.

<sup>(3) 2012</sup> figures are preliminary and unaudited.

#### **Historical Trends in Net Operating Revenues**

From 1964 through 2012, operating revenues and net operating revenues of the Authority grew at average annual rates of 7.3% and 7.2%, respectively.

Table Four sets forth operating revenues, maintenance and operating expenses, and net operating revenues for selected years since 1964.

#### TABLE FOUR

### OPERATING REVENUES, MAINTENANCE AND OPERATING EXPENSES AND NET OPERATING REVENUES<sup>(1)</sup>

## 1964-2012 (SELECTED YEARS) (Dollars in thousands)

YEAR	OPERATING REVENUES	MAINTENANCE AND OPERATING EXPENSES	NET OPERATING REVENUES
1964	\$ 32,135	\$ 6,832	\$ 25,303
1969	57,395	13,015	44,380
1974	72,737	23,715	49,022
1979	100,436	39,733	60,703
1984	162,108	56,639	105,469
1989	254,734	85,065	169,669
1994	309,949	116,996	192,953
1999	366,092	146,881	219,211
2004	423,427	198,302	225,125
2005	613,034	205,575	407,459
2006	606,954	213,510	393,444
2007	637,794	222,295	415,499
2008	691,113	244,275	446,838
2009	658,052	255,185	402,867
2010	672,760	250,857	421,903 <sup>(2)</sup>
2011	697,416	245,975	451,441 <sup>(2)</sup>
$2012^{(3)}$	963,755	253,059	710,696 <sup>(2)</sup>

Source: Authority's Comprehensive Annual Financial Report for the Year Ended December 31, 2011 for the selected years from 1964-2011.

Table Five presents a more detailed review of operating revenues, maintenance and operating expenses, net operating revenues and debt service coverage for 2007 through 2012. Projected net operating revenues and debt service coverage for 2013 through 2026 are set forth as part of Table Seven.

Determined according to the Series 1955 Bond Resolution through December 26, 1985, and in accordance with the Indenture subsequent to December 26, 1985. See Table Five for items included in Operating Revenues.

For a discussion of changes from 2010 to 2011 and 2011 to 2012, see "FINANCIAL INFORMATION – Financial Information Discussion" herein.

<sup>(3) 2012</sup> figures are preliminary and unaudited.

#### **TABLE FIVE**

# SUMMARY OF OPERATING REVENUES, MAINTENANCE AND OPERATING EXPENSES, NET OPERATING REVENUES<sup>(1)</sup> AND DEBT SERVICE COVERAGE FOR THE YEARS ENDED DECEMBER 31, 2007 – DECEMBER 31, 2012 (Dollars in Thousands)

	2007	2008	2009	2010	2011	2012(4)
Operating Revenues: Toll Revenue	\$572,093	\$583,647	\$592,063	\$628,754	\$652,674	\$922,390
Toll Evasion Recovery <sup>(2)</sup>	10,080	77,654	54,829	34,924	33,268	32,599
Concession & Other Revenue	5,775	6,832	7,960	7,332	10,410	7,377
Investment Income	49,846	22,980	3,200	1,750	1,064	1,389
Total Operating Revenue	\$637,794	\$691,113	\$658,052	\$672,760	\$697,416	\$963,755
Maintenance and Operating Expenses: General Administration	\$ 24,262	\$ 18,382	\$ 20,605	\$ 22,165	\$ 20,522	\$ 20,130
Engineering & Maintenance	44,834	43,899	47,895	45,627	43,667	39,152
Toll Services	79,538	100,464	91,541	88,850	88,737	93,411
Police, Safety and Communication Insurance and	21,247	21,895	22,650	22,811	23,061	22,786
<b>Employee Benefits</b>	52,414	59,635	72,494	71,674	69,988	77,579
Total Expenses	\$222,295	\$244,275	\$255,185	\$250,857	\$245,975	\$253,059
Net Operating Revenues	\$415,498	\$446,838	\$402,867	\$421,903	\$451,441	\$710,696
Total Debt Service <sup>(3)</sup>	\$172,284	\$198,429	\$173,319	\$248,108	\$249,960	\$250,253
Net Revenues After Debt Service <sup>(3)</sup>	\$243,214	\$248,409	\$229,548	\$173,795	\$201,481	\$460,443
Debt Service Coverage <sup>(3)</sup>	2.41	2.25	2.32	1.70	1.81	2.84

Source: Financial reporting required by the Indenture and included (except for 2012 figures) in the Comprehensive Annual Financial Report for the Year Ended December 31, 2011.

<sup>(1)</sup> Determined in accordance with the Indenture and may differ from financial statements prepared in accordance with generally accepted accounting principles. Operating Expenses exclude Depreciation and Amortization.

<sup>(2)</sup> For fiscal years 2007-2011, the amounts shown reflect the dollar amount (tolls plus fines) of violation notices issued in a given fiscal year less estimated bad debt expense for that fiscal year. Toll evasion recovery was low in FY07 because from July 2006 through August 2007 the Tollway suspended the issuance of violation notices in connection with transition to a new violation enforcement system and a change in the systems integrator. Toll evasion recovery was high in FY08/FY09 as the resulting backlog was worked through. The amount shown in 2012 consists of: the dollar amount of tolls evaded during 2012; plus the dollar amount of fines collected during 2012; less an accounting adjustment of (\$11.6 million) to remove the dollar amount of fines receivable net of bad debt expense as of 12/31/2011.

<sup>(3)</sup> Debt service is net of any applicable capitalized or pre-paid interest. Debt service does not net out any subsidy payments received or anticipated to be received by the Authority in connection with the 2009A Bonds and 2009B Bonds issued as Build America Bonds.

<sup>&</sup>lt;sup>(4)</sup> 2012 figures are preliminary and unaudited.

Historically, Net Revenues after Debt Service have been used primarily to fund deposits to the Renewal and Replacement Account and the Improvement Account in amounts budgeted by the Authority. The Authority anticipates that Net Revenues after Debt Service will continue to be so applied.

#### THE CAPITAL PROGRAM

#### The Move Illinois Program

The Move Illinois Program is the Illinois Tollway's capital program for 2012–2026. It is a comprehensive 15-year capital program that commits approximately \$12.1 billion in transportation funding to complete the rebuilding of the 52-year old system and provide transportation funding to improve mobility, relieve congestion, and reduce pollution and link economies across Northern Illinois. The Move Illinois Program is expected to be funded from the issuance of approximately \$5 billion of bonds and the remainder from revenues. See "PLAN OF FINANCE." The Authority approved the Move Illinois Program on August 25, 2011, and in connection therewith approved an approximately 87% increase in passenger vehicle toll rates effective January 1, 2012 and affirmed a previously approved increase in commercial vehicle toll rates. The commercial vehicle toll rate increase consists of an approximately 60% increase which will be phased in over January 1, 2015-2017 and an annual inflator to be applied beginning January 1, 2018 based on the Consumer Price Index for All Urban Consumers. See "THE TOLLWAY SYSTEM – Toll Rates" herein.

The basis for Move Illinois: The Illinois Tollway Driving the Future was a capital needs analysis performed by Tollway staff and consultants that included a comprehensive assessment of the current and future physical and operational characteristics of the entire Tollway system. Previous long-range plans were reevaluated, the needs of communities and stakeholders were catalogued and new technology and transit opportunities were explored. This evaluation became the foundation of the Move Illinois Program, which will provide additional capacity, relieve congestion and maintain the region's competitiveness with other major cities in the United States and around the world.

The Move Illinois Program is expected to include approximately \$8 billion to fund improvements to the existing Tollway system necessary to keep the existing 286 miles in a state of good repair. Such projects include:

- Reconstructing and widening the Jane Addams Memorial Tollway (I-90) from the Tri-State Tollway (I-294) near O'Hare Airport to the I-39 interchange in Rockford
- Reconstructing the central Tri-State Tollway (I-294) from 95<sup>th</sup> Street to Balmoral Avenue and the Edens Spur (I-94)
- Preserving the Ronald Reagan Memorial Tollway (I-88)
- Preserving the Veterans Memorial Tollway (I-355)
- Repairing roads, bridges, and maintenance facilities
- Other capital projects

The program commits an additional \$4 billion to new priority projects that focus on enhancing regional mobility including:

- Constructing a new interchange at I-294/I-57 and 147<sup>th</sup> Street ramps
- Constructing the Elgin O'Hare Western Access, including completion of the Elgin O'Hare and construction of a bypass between I-90 and I-294, and rehabilitation and widening of the existing Elgin O'Hare expressway
- Planning for transit options on the Jane Addams Memorial Tollway (I-90)
- Planning for other projects including the Illinois Route 53 Corridor and the Illiana Expressway

As described later in "THE TOLLWAY SYSTEM – Potential Additional Capital Projects – Statutory Approvals for New Toll Highways," certain approvals of the Governor and the General Assembly are required by the Act in connection with the Authority's issuance of bonds to finance costs related to new toll highways. The requisite approvals have been obtained for the Elgin O'Hare Western Access project with the exception of the Act's requirement that prior to the issuance of bonds for the commencement of construction of any new toll highway, that particular toll highway shall be authorized by a joint resolution of the Illinois General Assembly. On April 22, 2009, the Illinois House of Representatives passed a non-binding Joint Resolution authorizing the Authority to expand the Tollway System to include western access to O'Hare Airport (the O'Hare Bypass project). On March 22, 2013 the Illinois House of Representatives placed on the Calendar Order of Resolutions the expanded authorization for the Authority to include within the Move Illinois Program the necessary reconstruction and expansion of the existing Elgin-O'Hare Expressway.

#### **The Congestion-Relief Program**

On September 30, 2004, the Authority approved a ten-year \$5.3 billion capital improvement plan known as the Congestion-Relief Plan: Open Roads for a Faster Future (the "Congestion-Relief Plan"), and also approved an adjustment in toll rates. See "THE TOLLWAY SYSTEM – Toll Rates" below. The Congestion-Relief Plan was designed to reduce congestion and add capacity by rebuilding, restoring and expanding the Tollway System and utilizing open road tolling as described herein. The Tollway redesignated the Congestion-Relief Plan as the Congestion-Relief Program (the "CRP") once implementation was underway. The Tollway reassessed the CRP during 2007. A number of projects were reevaluated and modified or enhanced due to roadway conditions or to accommodate input from affected municipalities. Due to increased material and construction costs, the budgets for remaining projects were reevaluated and in some cases increased. Finally, significant additions were made to the CRP to address additional portions of the system and to provide access improvements to the Tollway. Based upon these changes, the overall budget for the CRP was increased to \$6.3 billion and the schedule lengthened by two years from 2014 to 2016. The revised CRP was approved by the Authority at its September 7, 2007 Board meeting. Subsequent progress of the CRP has allowed management to reduce the total cost of the CRP to its current \$5.8 billion.

The CRP is substantially complete (87% as of the end of 2012) and its following goals largely realized:

- provide congestion relief by converting the entire mainline system to open road tolling;
- widen a significant portion of the roadway network;
- rebuild or rehabilitate over 95% of the existing pavement;
- extend I-355 south from I-55 to I-80; and
- upgrade or add interchanges systemwide to meet the needs of growing communities.

Proceeds of the 2005 Bonds, the 2006 Bonds, the 2007 Bonds, the 2008B Bonds, the 2009A Bonds and the 2009B Bonds were used to pay a portion of the costs of the capital projects in the

Congestion-Relief Program. None of the remaining costs of the CRP are expected to be financed by bonds or other forms of debt.

For additional information about both the Move Illinois Program and the Congestion Relief Program, please see **APPENDIX B.** 

#### **Potential Additional Capital Projects**

Statutory Approvals for New Toll Highways. The Act provides for certain approvals by the Governor and the Illinois General Assembly in connection with the Authority's issuance of bonds to finance costs related to new toll highways. Prior to commencing any engineering or traffic studies to determine the feasibility of constructing additional toll highways in the State, the Authority must submit the proposed route, together with an estimate of the cost of the proposed study or studies, to the Governor for his approval. If the Governor approves such studies, or fails to disapprove such studies and estimated cost within 30 days after receipt thereof, the Authority is permitted, but is not required, to proceed with such studies. Prior to the issuance of bonds other than refunding bonds, the Authority must first hold a public hearing relating to the proposed toll highway and then deliver to the Governor preliminary plans showing the proposed location of the route of the particular toll highway for which the bonds are to be issued, together with a preliminary estimate of the costs of construction. If the Governor approves the preliminary plans and the estimate of construction costs, the Authority may, but is not required to, proceed with the issuance of bonds. In addition, the Act provides that prior to the issuance of bonds for or the commencement of construction of any new toll highway, that particular toll highway shall be authorized by a joint resolution of the Illinois General Assembly.

Potential System Expansion. The Illinois General Assembly has passed joint resolutions authorizing, but not requiring, the Authority to construct three new toll highways described in the following table that would add approximately 69 miles to the Tollway System.

Year of Joint Resolution	Potential Toll Highway	Additional Miles
1993	Southward extension of the Veterans Memorial Tollway from U.S. Interstate Highway 80 to U.S. Interstate Highway 57 near Peotone.	20
1993	North Extension extending Illinois Route 53 from Lake-Cook Road to the Tri-State Tollway.	23
1993	Richmond Waukegan Toll Highway extending from Illinois Route 120 west to Richmond, Illinois at approximately Illinois Route 173.	26

Pursuant to a Board Resolution passed on December 20, 2007, the Authority identified several projects in Northeastern Illinois not currently part of the Tollway System, known as the Illiana Expressway, the Crosstown Expressway, the Prairie Parkway, completion of the Elgin-O'Hare Expressway, and improvement of the Eisenhower Expressway, as additional potential future projects to be studied by Authority management. The Governor has approved the commencement of feasibility, traffic and engineering studies related to these projects. Except with respect to the Elgin-O'Hare Project which is part of the Move Illinois Program, the Authority has not completed feasibility studies, held the public hearings required by the Act, or requested the Governor's approval of preliminary plans or estimates of costs of construction for any of the potential toll highways or projects described above. Before commencing construction on any new toll highway, the Authority must comply with all applicable legal requirements under the Act. In the future the Authority may embark on other system expansion and improvement projects, depending upon factors such as the availability of funding for highway projects in the region, changes in traffic congestion patterns, and agreements with other public entities in the region.

On March 19, 2010 Indiana Governor Mitch Daniels signed into law Senate Enrolled Act 382, which authorizes the Indiana Department of Transportation to enter into a public-private partnership to construct and operate a toll road connecting Interstate 69 in Indiana to an interstate highway in Illinois (the "Illiana Expressway"). On June 9, 2010, Illinois Governor Pat Quinn signed into law Public Act 096-0913, authorizing the Illinois Department of Transportation to engage in public-private partnerships to develop, finance and operate transportation facilities, subject to various conditions and restrictions. Public Act 096-0913 authorizes, subject to compliance with a number of requirements including approval of the Governor, the Illiana Expressway will occur or (ii) the Authority's involvement, if any, in the development, financing or operation of the Illiana Expressway as a result of the bill or otherwise. The Authority cannot predict whether the Illiana Expressway, if completed, would become part of the Tollway System.

#### **Other Limited Access Highways**

There are no limited access freeways or other limited access highways under construction, and to the knowledge of the Authority, no Federal, state or other agency is now planning the construction, improvement or acquisition of any highway or other facility that may be materially competitive with the Tollway System.

#### **Patron Service Areas**

Seven patron service areas ("Oases") serve the existing Tollway System. These Oases are comprised of patron service buildings that house washroom facilities, restaurants and other traveler-related convenience services ("Oases pavilions") and motor fuel facilities ("Oases fuel facilities"). In 2002, the Authority entered into separate triple-net lease agreements with Wilton Partners Tollway LLC ("Wilton") for developing, operating, maintaining and managing the Oases pavilions and with ExxonMobil Oil Corporation ("Exxon") for developing, operating, maintaining and managing the Oases fuel stations. The lease agreements extend until April 2027.

On September 30, 2010, SFI Chicago Tollway LLC ("SFI"), an iStar subsidiary, took ownership of the Wilton leasehold, following court approval of a foreclosure sale. SFI contracted with U.S. Equities to continue managing the day-to-day operation of the Oases pavilions. The guaranteed minimum rent for the Oases pavilions was \$743,000 in lease years 4-10 and increased to \$850,000 in years 11-25. Over and above the guaranteed minimum rent, if SFI sublessees' sales exceed certain sublease-specific break points, the Tollway also shares in a percentage of the profits.

In 2011, ExxonMobil assigned its leasehold interest in the Oases fuel facilities to 7-Eleven. Guaranteed rent for the Oases fuel stations is \$900,250 annually.

#### **Condition and Maintenance**

Providing Tollway patrons with a well-maintained highway is a task assigned to the Authority's maintenance crews. Personnel assigned to the eleven maintenance buildings, spaced at approximately 25-30 mile intervals along the road, are responsible for maintaining the Tollway System by keeping roads clean and safe in all weather conditions, particularly in winter when they clear the roadway of snow and ice.

In connection with properly maintaining the condition of the Tollway System, the Authority has employed AECOM Technical Services, Inc. ("AECOM" or the "Consulting Engineer") since the Tollway's inception. For fifty-three years, the Consulting Engineer has performed an annual

inspection of the Tollway's roadway and facilities and produced a report of this inspection. AECOM's most recent report, for the year 2011, was dated October 26, 2012 (the "AECOM Report"), and includes assessments of: roadway pavement, which includes a visual inspection, structural evaluation and pavement surface evaluations; roadway appurtenances (i.e. drainage structures, embankments, ditches, guardrail and median barriers, mile markers, pavement markers and right-of-way fencing); structures (i.e. bridges, large culverts, retaining walls, noise abatement walls, and sign structures); and buildings and facilities (i.e. maintenance facility sites (garages, offices, salt domes, gas pumping facilities, storage buildings, etc.), toll plazas, telecommunication buildings, and oases). The Indenture requires that the Authority employ a consulting engineer of nationwide and favorable reputation while any Bonds issued under the Indenture remain outstanding, including the 2013A Bonds.

According to the AECOM Report, although the original system continues to be maintained, design life expectancies of infrastructure elements are reaching the end of predictable usefulness due to the effects of age and increasing traffic. Upon the completion of the current capital programs, approximately 99% of the entire system's mainline pavement will have been reconstructed or rehabilitated by 2026. Prior to the current capital programs, the Authority's annual maintenance efforts focused on protecting the integrity of the roadway through projects such as emergency patching and intermittent pavement repairs. See **APPENDIX B** for additional information on the condition of the existing Tollway System and the projects being undertaken as part of the Program.

The Authority's Renewal and Replacement program is based upon the recommendations of the Consulting Engineer. See "THE TOLLWAY SYSTEM – Renewal and Replacement Program and Improvement Program" below.

#### Renewal and Replacement Program and Improvement Program

The Authority's Renewal and Replacement program consists of projects to maintain the integrity of the existing Tollway System. The Renewal and Replacement program includes the preservation, replacement, repairs, renewals and reconstruction or modification of the Tollway System, but does not include System Expansion Projects and other Improvements. The Authority and its Consulting Engineer perform periodic inspections of the Tollway System to determine work necessary to maintain the existing system.

For the period from 1999 through 2012, the Authority credited over \$2.1 billion to the Renewal and Replacement Account, for rehabilitation, repair and replacement projects as indicated in Table Six. Deposits to the Renewal and Replacement account are made from Net Revenues after deposits are made pursuant to the Indenture into the Maintenance and Operation, Debt Service, Debt Reserve and Junior Bond Accounts. See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Flow of Funds."

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#### **TABLE SIX**

## RENEWAL AND REPLACEMENT PROGRAM FOR THE YEARS ENDED DECEMBER 31, 1999 THROUGH 2012

#### RENEWAL AND REPLACEMENT ACCOUNT(1)

YEAR	TOTAL FUNDS CREDITED <sup>(2)</sup>
1999	\$ 59,505,292
2000	87,517,692
2001	91,073,256
2002	121,375,438
2003	157,366,445
2004	157,375,682
2005	204,609,580
2006	186,545,035
2007	198,331,687
2008	$1,907,175^{(3)}$
2009	161,463,238
2010	206,096,487
2011	174,192,997
2012	300,660,937*
	\$2,108,020,941

<sup>\*</sup> Preliminary, unaudited.

Pursuant to the Indenture, on or before October 31 of each Fiscal Year the Authority is required to prepare a tentative budget for the ensuing Fiscal Year and to include in such budget the recommendations of the Consulting Engineer as to the Renewal and Replacement Deposit for the ensuing Fiscal Year. In accordance with the Indenture, Renewal and Replacement Expenses anticipated to be funded with proceeds of Bonds are not included in this Renewal and Replacement Deposit requirement. For current estimates of future Renewal and Replacement Deposits, see the Consulting Engineer's Report in **APPENDIX B**. For 2008, the budget required a minimum deposit of \$100 million to the Renewal and Replacement Account pursuant to the recommendation of the Consulting Engineer. The Consulting Engineer subsequently deferred this required deposit to 2009, based on projections showing a balance of \$74 million in the Renewal and Replacement Account at the end of 2008, which the Consulting Engineer deemed an adequate reserve for the unanticipated maintenance and rehabilitation needs of the System for 2009. The Authority deposited \$161,463,238 in 2009 (which included the amount deferred from 2008 to 2009). Based upon the recommendation of the Consulting Engineer, the Authority estimates that a minimum deposit of \$200,000,000,000 will be made in 2013. A portion of the Renewal and Replacement Deposits will be used to fund certain costs of the Authority's capital programs.

The tentative budget prepared each year by the Authority may include the Authority's estimate of the amount, if any, that will in the ensuing Fiscal Year be available for credit to the Improvement Account established under the Indenture, which is used to fund the Authority's Improvement program. The Improvement program includes any System Expansion Project, or any acquisition, installation, construction, reconstruction, modification or enhancement of or to any real or

Prior to the effectiveness of certain amendments to the Indenture in 1999, these deposits were made to the Major Improvement Account, which is now designated as the Renewal and Replacement Account.

<sup>(2)</sup> Includes earnings credited to the Renewal and Replacement Account.

<sup>(3)</sup> As described below, deposits for 2008 were deferred.

personal property (other than Operating Expenses) for which a currently effective resolution of the Authority has been adopted authorizing the deposit of Revenues to the credit of the Improvement Account for such System Expansion Project or acquisition, installation, construction, reconstruction, modification or enhancement including, without limitation, the cost of related feasibility studies, plans, designs or other related expenditures. The Authority has authorized the deposit of Revenues from time to time to the credit of the Improvement Account held under the Indenture for the purpose of funding the cost of each capital improvement that constitutes an "Improvement" under the Indenture. See "THE CAPITAL PROGRAM – The Move Illinois Program" and "– The Congestion-Relief Program" and APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Flow of Funds – Improvement Account."

#### FINANCIAL INFORMATION

#### **Financial Information Discussion**

General

Management of the Authority is responsible for establishing and maintaining an internal financial control structure designed to ensure that (i) the assets of the Authority are protected from loss, theft, or misuse and (ii) adequate accounting data are compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The Authority's internal financial control structure is designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that: (1) the cost of a control should not exceed the benefits likely to be derived from it; and (2) the evaluation of costs and benefits requires estimates and judgments by management.

The Authority issues audited financial statements (see APPENDIX A) annually, which are prepared in accordance with generally accepted accounting principles for public agencies. The Authority's accounting system is organized and operated on an "enterprise fund basis." The accounting practices of the Authority are more fully described in Note 1 to the audited financial statements. The notes provided in the audited financial statements included in APPENDIX A are an integral and essential part of adequate disclosures and fair presentation of the audited financial report. The notes include a summary of significant accounting policies for the Authority and other necessary disclosures of pertinent matters relating to the financial position of the Authority. The notes provide additional informative disclosures not reflected on the face of the financial statements. The audited financial statements should be read only in connection with the accompanying notes.

Financial Results – Audited, GAAP Basis – 2011 and 2010

The following summarizes and discusses the audited financial results of the Authority as presented in the audited financial statements included in **APPENDIX** A.

Operating revenues increased 4% during 2011, from \$673 million to \$698 million. Most of this increase was attributable to an increase in toll revenue, which increased 4% in 2011 over 2010, from \$629 million to \$653 million, as signs of improvement in the regional economy included increased traffic. Other operating revenues were flat at \$45 million in 2011 and 2010. A decline in toll evasion recovery, from \$35 million in 2010 to \$33 million in 2011, was offset by an increase in miscellaneous revenues, from \$7.3 million in 2010 to \$9.5 million in 2011. Concession revenue was steady at \$2.4 million. Operating expenses in total declined by 1% during 2011, to \$584.7 million in 2011 from \$592.2 million the previous year. The Tollway's single largest expense category remained depreciation and amortization, which increased slightly from \$315 million in 2010 to \$318 million in 2011. Depreciation

and amortization represents 54% of the Tollway's \$592 million of operating expense in 2011. Excluding depreciation and amortization, operating expenses declined \$10.7 million, a 4% decline from \$277.2 million in 2010 to \$266.5 million in 2011. Operating expenses for Services and Toll Collection declined \$6.1 million from \$112.6 million in 2010 to \$106.5 million in 2011, primarily due to lower payroll.

The resulting operating income for the year, \$113 million, was an increase of \$32 million over the previous year, due primarily to the toll revenue increase and the decreased operating expenses.

Net non-operating expenses increased 4% from \$178 million in 2010 to \$184 million in 2011, primarily due to a \$9 million increase in interest and other financing costs, from \$198 million in 2010 to \$207 million in 2011. Most of the increase in interest and other financing costs was the result of an increase in the cost of bank liquidity supporting variable rate bonds, consistent with increases in market rates for such facilities.

Financial Results – Preliminary and Unaudited, Trust Indenture Basis – 2012

In order to demonstrate compliance with requirements stated in the Indenture, the Authority prepares separate schedules (the "Trust Indenture Financials") in conformance with trust indenture basis accounting principles, which is an accounting basis that differs from GAAP. The Trust Indenture Financials are the basis for the financial information included in Table Five. Some of the primary differences in the information included in Table Five versus the Appendix A financials are: no depreciation/amortization is included in operating expenses; no earnings on construction fund bond proceeds are included in investment earnings; and Toll Evasion Recovery includes the netting of bad debt expense. The following discussion of unaudited 2012 results is based on the Trust Indenture basis of accounting.

Preliminary and unaudited 2012 revenues were \$963.8 million, an increase of \$266.3 million, or 38%, over the \$697.4 million in revenues in 2011 (determined on the Trust Indenture Basis). Most of the large increase is attributable to the 41% increase in toll revenues, from \$652.7 million in 2011 to \$922.4 million in 2012, that resulted from the significant increase in toll rates for cars that became effective on January 1, 2012 (see "THE TOLLWAY SYSTEM – Toll Rates"). There was a small decline in Toll Evasion Recovery revenues of \$0.7 million from \$33.3 million in 2011 to \$32.6 million in 2012. Toll Evasion Recovery revenues in 2012 include an accounting adjustment of (\$11.6 million) to remove fines receivable (net of bad debt expense) as of December 31, 2011. Other revenues (investment income, concessions, miscellaneous) declined by \$2.7 million from \$11.5 million in 2011 to \$8.8 million in 2012, primarily due to the inclusion of a reversal of bad debt expense in 2011 that did not recur in 2012.

# **Budgetary Controls**

The Authority is required by the Indenture to prepare a tentative budget of Operating Expenses for the ensuing Fiscal Year on or before October 31 of each Fiscal Year and to adopt the annual budget for such Fiscal Year on or before January 31 of such Fiscal Year. The adopted annual budget does not require the approval of the Illinois General Assembly. The Board of the Authority adopted the tentative annual budget for Fiscal Year 2013 on October 25, 2012 and the final annual budget for Fiscal Year 2013 on December 13, 2012. The budgeted amounts for 2013 are reflected in the information presented in Table Seven.

#### Toll Revenue Collection

The Authority experiences a difference between expected and actual toll revenue collected for a variety of reasons, such as non-payments (including toll evasion and non-payment as a result of improper transponder use), underpayments, insufficient funds in I-PASS accounts, and collection or VES equipment failures. The Authority has implemented systems and procedures to facilitate maximum realization of toll revenue. (See "THE TOLLWAY SYSTEM – Toll Collection.")

Expected revenue represents revenue that would be collected if every vehicle paid the exact published toll based on vehicle class, time of day and payment type. The toll revenue estimates in the Traffic Engineer's Report represent such expected revenue, and therefore do not account for overpayments, underpayments, exemptions or revenue lost due to toll avoidance, or for tolls and fines collected through the violation enforcement process. Amounts of revenue reported in the Authority's quarterly statements and annual financial reports reflect these adjustments.

From July 2006 through August 2007, the Tollway suspended the issuance of violation notices as it transitioned to a new system which integrated toll collection and violation enforcement. In addition to the system change there was also a change in the systems integrator. While these developments improved the Authority's ability to enforce its toll collection and violation enforcement in the long term, the temporary suspension of violation notices accompanying the transition resulted in a short-term increase in evaded tolls, which peaked in 2007 at 9.3% of expected revenue. Evidence pertaining to violations which occurred during the temporary suspension period, including photos, was captured and maintained, and the issuance of violation notices resumed late in 2007, which contributed to reducing the rate of evaded tolls. Evaded tolls as a percentage of expected revenue were 6.9% in 2008, 6.3% in 2009, 6.0% in 2010, 4.9% in 2011 and 5.7% in 2012. In 2013, the Authority budgeted evaded tolls at 5.7%.

Also as a result of the afore-mentioned suspension and subsequent resumption of the issuance of violation notices, toll evasion recovery revenues increased from \$10.1 million in 2007 to \$77.2 million in 2008 and \$54.8 million in 2009, as the Tollway worked through the notification and collection processes for its backlog of violations. Toll evasion recovery revenues in 2010, 2011 and 2012 were \$34.9 million, \$33.3 million and \$32.6 million, respectively.

The Authority implemented a video tolling (V-Tolling) program beginning in 2005 to facilitate revenue collection from I-PASS customers. Using the VES camera arrays to capture license plate images of users that utilize the system and do not pay the proper toll, the V-Tolling program automatically deducts tolls from I-PASS customer accounts when transponders do not demonstrate valid reads. V-Tolling matches license plates to I-PASS account holders to allow tolls to be collected from these motorists.

#### **Outstanding Indebtedness**

Set forth below is a summary of the outstanding indebtedness of the Authority, after the issuance of the 2013A Bonds. All of the following are Senior Bonds under the Indenture.

Series	Final Maturity	Principal Outstanding	Type of Issue
1998 Series A	1/1/2016	\$ 134,400,000	Fixed
1998 Series B	1/1/2017	123,100,000	Variable
2005 Series A	1/1/2023	770,000,000	Fixed
2006 Series A-1	1/1/2025	291,660,000	Fixed
2007 Series A-1	7/1/2030	350,000,000	Variable
2007 Series A-2	7/1/2030	350,000,000	Variable
2008 Series A-1	1/1/2031	383,100,000	Variable
2008 Series A-2	1/1/2031	95,800,000	Variable
2008 Series B	1/1/2033	350,000,000	Fixed
2009 Series A	1/1/2034	500,000,000	Fixed
2009 Series B	12/1/2034	280,000,000	Fixed
2010 Series A-1	1/1/2031	279,300,000	Fixed
2013 Series A	1/1/2038	500,000,000	Fixed
Total Outstan	ding Debt	\$4,407,360,000	

The 1998 Series A and the 1998 Series B Bonds were issued to advance refund a portion of the 1992 Series A Bonds, which were issued to finance the widening of the Tri-State Tollway. The 2005 Series A, 2006 Series A-1, 2007 Series A-1, 2007 Series A-2, 2008 Series B, 2009 Series A and 2009 Series B Bonds were issued to finance portions of the Congestion-Relief Program. The 2008 Series A-1 and 2008 Series A-2 Bonds were issued to advance refund (i) a portion of the 2006 Series A-1 Bonds and (ii) the Authority's 2006 Series A-2 Bonds, which were issued to finance a portion of the Congestion-Relief Program and are no longer outstanding. The 2010 Series A-1 Bonds were issued to current refund a portion of the Authority's 2008 Series A-2 Bonds.

The proceeds of the 2013A Bonds will be used to pay for a portion of the costs of the capital projects included in the Move Illinois Program. See "PLAN OF FINANCE" herein.

There are floating-to-fixed interest rate Swap Agreements in place relating to each series of the Authority's variable rate bonds. See "SWAP AGREEMENTS" for additional information.

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# **Annual Debt Service Requirements**

Set forth below is a schedule of the annual debt service associated with the 2013A Bonds and the other Senior Bonds Outstanding and the combined debt service thereon during the period January 1, 2014 through January 1, 2038.

Year Ending	Debt Service on Outstanding	2013A	2013A Bonds				
January 1	Senior Bonds <sup>(1)(2)(3)</sup>	Principal	Interest	Bonds <sup>(1)(2)(3)</sup>			
2014	\$ 283,313,756		\$ 15,625,000	\$ 298,938,756			
2015	283,313,681		25,000,000	308,313,681			
2016	283,225,256		25,000,000	308,225,256			
2017	283,322,581		25,000,000	308,322,581			
2018	281,862,181		25,000,000	306,862,181			
2019	302,814,096		25,000,000	327,814,096			
2020	302,765,162		25,000,000	327,765,162			
2021	302,472,415		25,000,000	327,472,415			
2022	302,229,178		25,000,000	327,229,178			
2023	301,967,409		25,000,000	326,967,409			
2024	301,743,209		25,000,000	326,743,209			
2025	292,016,021		25,000,000	317,016,021			
2026	292,006,829		25,000,000	317,006,829			
2027	299,672,412	\$ 13,605,000	25,000,000	338,277,412			
2028	300,116,482	14,285,000	24,319,750	338,721,232			
2029	301,533,766	15,000,000	23,605,500	340,139,266			
2030	302,369,631	15,745,000	22,855,500	340,970,131			
2031	302,796,548	16,535,000	22,068,250	341,399,798			
2032	297,913,800	17,360,000	21,241,500	336,515,300			
2033	296,633,972	18,230,000	20,373,500	335,237,472			
2034	295,291,004	19,140,000	19,462,000	333,893,004			
2035	296,382,800	20,100,000	18,505,000	334,987,800			
2036	-	111,025,000	17,500,000	128,525,000			
2037	-	116,575,000	11,948,750	128,523,750			
2038	-	122,400,000	6,120,000	128,520,000			
Total	\$6,505,762,189	\$500,000,000	\$548,624,750	\$7,554,386,939			

Debt service for the Authority's variable rate bonds (Series 1998B, 2007A-1, 2007A-2, 2008A-1 and 2008A-2) assumes the associated annual synthetic fixed interest rates, based on Swap Agreements entered into in connection with those variable rate bonds. See "FINANCIAL INFORMATION – Swap Agreements" herein.

The Authority's variable rate bonds, other than the Series 2007A Bonds, have liquidity support provided through standby bond purchase agreements with various liquidity providers and have bond insurance. The Series 2007A Bonds have liquidity and credit support provided through agreements with various providers. Debt service for the variable rate bonds does not include any liquidity fees, letter of credit fees or remarketing fees. As of the date hereof, no variable rate bonds were held by their respective liquidity or credit providers. See "FINANCIAL INFORMATION – Credit Facilities" herein.

<sup>(3)</sup> Debt service does not net out any Subsidy Payments received or anticipated to be received by the Authority in connection with the 2009A Bonds or 2009B Bonds issued as Build America Bonds. Rows and columns may not add due to rounding.

#### **Swap Agreements**

#### General

Significant terms of the Authority's existing swap agreements in effect on the date of issuance of the 2013A Bonds (each a "Swap Agreement" and collectively, the "Swap Agreements") are set forth in the following table. Estimated valuations of the Swap Agreements are shown as of December 31, 2012 and do not include accrued interest; however such valuations are only estimates and may change due to various factors, including changes in interest rates and differences in valuation methods.

Series	Current Notional Amount (000s)	Effective Date	Fixed Rate <sup>(1)</sup>	Variable Rate <sup>(2)</sup>	Termination Date	Counterparty	Estimated Valuation (000s) (as of 12/31/2012)
1998B	\$ 67,705	12/30/98	4.3250%	Bond rate <sup>(3)</sup>	01/01/17	Goldman Sachs Mitsui Marine Derivative Products, L.P.	\$ (9,182)
1998B	55,395	12/30/98	4.3250	Bond rate <sup>(3)</sup>	01/01/17	JPMorgan Chase Bank, National Association	(7,512)
2007A-1	175,000	11/01/07	3.9720	SIFMA <sup>(4)</sup>	07/01/30	Citibank N.A., New York	(45,039)
2007A-1	175,000	11/01/07	3.9720	SIFMA <sup>(4)</sup>	07/01/30	Goldman Sachs Bank USA <sup>(5)</sup>	(45,039)
2007A-2	262,500	11/01/07	3.9925	SIFMA <sup>(4)</sup>	07/01/30	Bank of America, N.A.	(68,264)
2007A-2	87,500	11/01/07	3.9925	SIFMA <sup>(4)</sup>	07/01/30	Wells Fargo Bank, N.A.	(22,755)
2008A-1	191,550	02/07/08	3.7740	SIFMA <sup>(4)</sup>	01/01/31	The Bank of New York	(44,435)
2008A-1	191,550	02/07/08	3.7740	SIFMA <sup>(4)</sup>	01/01/31	Deutsche Bank AG	(44,435)
2008A-2	95,775	02/07/08	3.7640	SIFMA <sup>(4)</sup>	01/01/31	Bank of America, N.A. <sup>(6)</sup>	(22,094)

<sup>(1)</sup> Fixed rate paid by the Authority. Fixed interest payments are made on a monthly or semi-annual basis according to each Swap Agreement.

Each of the above Swap Agreements is a Qualified Hedge Agreement under the Indenture. As a result, pursuant to the terms of the Indenture, the Authority is entitled to treat the Bonds related to a given Swap Agreement as bearing interest at the fixed rate of interest payable by the Authority to the counterparty under such Swap Agreement (each a Swap Provider), for purposes of calculating the Net Revenue Requirement to be used in demonstrating compliance with certain financial tests and requirements under the Indenture, including tests for the issuance of Additional Senior Bonds. Each of the Swap Agreements will amortize in such amounts and at such times that the notional amount of the Swap Agreement will at all times approximately match, but not exceed, the outstanding principal amount of the related Bonds.

The fixed interest payments made by the Authority under each of the Swap Agreements will be paid from amounts on deposit in the Interest Sub-Account of the Debt Service Account on a parity with the lien of the Net Revenues created with respect to the Senior Bonds.

Arrangements made in respect of the Swap Agreements do not alter the Authority's obligation to pay the principal of, premium, if any, and interest on the Authority's Outstanding Bonds.

<sup>(2)</sup> Variable rate received by the Authority.

<sup>(3)</sup> For each Swap Agreement relating to the 1998B Bonds, the variable payment is based upon the actual amount of interest paid bondholders (cost of funds). Upon the occurrence of certain events, the amounts payable by each Swap Provider under the Swap Agreements relating to the 1998B Bonds shall equal the Alternative Floating Rate (as defined in the Swap Agreements relating to the 1998B Bonds), which may be different than the interest rate on the 1998B Bonds.

<sup>(4)</sup> SIFMA 7-day Municipal Swap Index

<sup>(5)</sup> Guaranteed by The Goldman Sachs Group, Inc.

<sup>(6)</sup> Novation effective October 7, 2011 from Merrill Lynch Capital Services, Inc. to Bank of America, N.A. Guaranteed by Merrill Lynch & Co., Inc.

Payments pursuant to the Swap Agreements do not constitute Revenues and therefore the Swap Agreements do not provide a source of security for the Authority's Outstanding Bonds.

There are certain risks related to each Qualified Hedge Agreement. For a discussion of certain of these risks, see APPENDIX A – "FINANCIAL STATEMENTS – Note 6 – Revenue Bonds Payable – Interest Rate Exchange Agreements."

Sources of Funds for Swap Termination Payments

Under the Indenture, any termination payments with respect to the Swap Agreements relating to the 1998 Series B Bonds are payable from the Provider Payment Sub-Account of the Debt Service Account. Payments from the Provider Payment Sub-Account are made after payment of debt service on the Senior Bonds but prior to deposits to the Debt Reserve Account (although no deposit may be made to the Provider Payment Sub-Account for making any termination payment if there is a deficiency in the Debt Reserve Account). The Authority's obligation to make such payments is on a parity with the lien on the Net Revenues created with respect to the 2013A Bonds and is prior to payment of debt service on any Junior Bonds or Subordinated Indebtedness. Any termination payments with respect to Swap Agreements executed and delivered from and after the date of execution and delivery of the Seventh Supplemental Indenture, which include the Swap Agreements relating to the 2007 Bonds and the Swap Agreements relating to the 2008A Bonds, will be paid from amounts on deposit in the Termination Payment Account or other lawfully available funds of the Authority. Payments from the Termination Payment Account are made after payment of debt service on Senior Bonds, after deposits to the Debt Reserve Account and after payment of any amounts required by Supplemental Indentures authorizing Junior Bonds. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2013A **BONDS - Flow of Funds."** 

#### **Credit Facilities**

The Authority's variable rate bonds, other than the Series 2007A Bonds, have liquidity support provided through standby bond purchase agreements with the liquidity providers set forth below and have bond insurance. The Series 2007A Bonds have liquidity and credit support provided through agreements with the providers set forth below:

Series	Insurer	Liquidity and/or Credit Provider and Expiration Date of Liquidity and/or Credit Facility
1998B	Assured Guaranty Municipal Corp.	Landesbank Hessen-Thüringen Girozentrale, New York Branch (12/27/2013)
2007A-1a	None	Citibank, N.A. (1/31/2014)
2007A-1b	None	PNC Bank, National Association (3/18/2014)
2007A-2a	None	The Bank of Tokyo-Mitsubishi UFJ, Ltd. (3/17/2014)
2007A-2b	None	Harris N.A. (3/18/2014)
2007A-2c	None	The Northern Trust Company (3/18/2014)
2007A-2d	None	Wells Fargo Bank, National Association (3/18/2015)
2008A-1a	Assured Guaranty Municipal Corp.	JPMorgan Chase Bank, National Association (6/7/2013)
2008A-1b	Assured Guaranty Municipal Corp.	PNC Bank, National Association (2/7/2014)
2008A-2	Assured Guaranty Municipal Corp.	JPMorgan Chase Bank, National Association (6/7/2013)

As of the date hereof, no variable rate bonds are held by their respective liquidity or credit providers.

# **Pro Forma Debt Service Coverage**

Table Seven below sets forth the projected Pro Forma Debt Service Coverage for the years 2013 through 2026, based upon the assumptions set forth herein. In Table Seven, Projected

Revenues for the year 2013 is based on the Authority's 2013 Budget, and Projected Revenues for the years 2014 through 2026 are based upon the report of the Traffic Engineer as to toll revenue (see **APPENDIX C**). Projected Operating Expenses for the years 2013 through 2026 are based upon the Budget for 2013 and the report of the Consulting Engineer for 2014 through 2026 (see **APPENDIX B**). Selected portions of each report are summarized in the paragraphs that follow in this section and reference is made to **APPENDICES B** and **C** for the reports of the Consulting Engineer and Traffic Engineer, respectively.

As previously noted, the toll revenue estimates in the Traffic Engineer's Report represent expected revenue. Expected revenue represents the revenue that would be collected if every vehicle paid the exact published toll based on vehicle class, time of day and payment type. The expected revenue does not account for overpayments, underpayments, exemptions or toll avoidance nor does it account for tolls and fines collected through the violation enforcement system. In addition, estimates of toll revenues by the Traffic Engineer are based on various assumptions, including the assumption that the commercial vehicle toll rate increase that was approved in 2008 and affirmed in 2012 will go into effect as currently scheduled. The commercial vehicle toll rate increase is an increase of approximately 60% over the current toll rate schedule for commercial vehicles. The increase is scheduled to be implemented as follows: approximately two-thirds of the increase on January 1, 2015, approximately one-sixth of the increase on January 1, 2016, and approximately one-sixth of the increase on January 1, 2017. Additionally, the commercial vehicle toll rate increase includes an annual inflator based on the Consumer Price Index for All Urban Consumers, to be implemented beginning January 1, 2018, and every January 1<sup>st</sup> thereafter. The Traffic Engineer's Report assumes that for passenger vehicles, the present toll schedule will remain in effect through 2040. Critical revenue assumptions are stated in the report of the Traffic Engineer. See APPENDIX C.

Future Senior Bonds may be issued on a parity with Outstanding Senior Bonds provided that the Authority certifies, based upon certificates of Traffic Engineers and Consulting Engineers and in addition to certain other required certifications, that (1) Net Revenues as reflected in the books of the Authority for a period of 12 consecutive months out of the 18 months next preceding each issuance (as adjusted to reflect certain adjustments of toll rates, if applicable) exceeded the Net Revenue Requirement for such 12-month period, and (2) estimated Net Revenues for the current and each future Fiscal Year through at least the fifth full Fiscal Year after the date of issuance of such Additional Bonds, shall be at least equal to the estimated Net Revenue Requirement for such Fiscal Year. Other tests apply for Senior Bonds issued for the purposes of completing a Project or for refunding purposes. The Net Revenue Requirement means, with respect to any period of time, an amount necessary to cure deficiencies, if any, in the Debt Service Account, the Debt Reserve Account, any Junior Bond Debt Service Account and any Junior Bond Debt Reserve Account plus the greater of (i) the sum of Aggregate Debt Service (defined as the sum of the amounts of Debt Service with respect to all series of Senior Lien Bonds), the Junior Bond Revenue Requirement and the Renewal and Replacement Deposit for such period or (ii) 1.3 times the Aggregate Debt Service for such period. As of the date of this Official Statement, the Authority has no Junior Bonds or subordinated indebtedness outstanding. See APPENDIX D - "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE - Additional Indebtedness."

Pursuant to the Indenture, the Traffic Engineer is required to certify as a condition to the issuance of any Senior Bonds whether, to the best of its knowledge, any Federal, state or other agency is currently projecting or planning the construction, improvement or acquisition of any highway or other facility that, in its opinion, may be materially competitive with any part of the Tollway System. See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Additional Indebtedness."

Under the Indenture, the Authority is required to adopt an annual budget of its operating expenses for each Fiscal Year, which budget shall include the recommendations of the Consulting Engineers as to the Renewal and Replacement Deposit for such Fiscal Year. Estimates of Renewal and Replacement Deposits are based upon the Consulting Engineer's assessment of the Tollway System and the costs associated with necessary major replacement, repair, and rehabilitation projects. The Consulting Engineer's Report also contains estimates of the Renewal and Replacement Deposit for the years 2013 through 2031.

The following table sets forth Pro Forma Debt Service Coverage for the years 2013 through 2026, based upon the assumptions set forth in the footnotes thereto. This table should be considered in conjunction with the entire Consulting Engineer's Report and the entire Traffic Engineer's Report to understand the assumptions on which Projected Revenues, Projected Operating Expenses and Projected Renewal and Replacement Deposits are based. There will usually be differences between projected and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material.

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#### TABLE SEVEN

# PRO FORMA DEBT SERVICE COVERAGE (Dollars in thousands)

	2013	2014	2015	2016	2017	2018	2019
PROJECTED OPER. REVS	_				_	_	
Toll Revenues <sup>(1)</sup>							
Existing System Elgin O'Hare Corridor	\$990,351 -	\$1,016,228	\$1,165,872 -	\$1,231,659	\$1,324,133 19,259	\$1,363,204 19,705	\$1,404,291 34,085
Subtotal – Toll Revs	\$990,351	\$1,016,228	\$1,165,872	\$1,231,659	\$1,343,392	\$1,382,910	\$1,438,375
Evaded Tolls <sup>(2)</sup>	(56,351)	(50,811)	(58,294)	(61,583)	(67,170)	(69,146)	(71,919)
Evasion Recovery <sup>(3)</sup>	43,000	37,600	43,137	45,571	49,706	51,168	53,220
Concession and Miscellaneous Revenues	8,000	8,000	8,000	8,000	9,000	9,000	9,000
Investment Income	1,000	4,000	8,000	11,000	14,000	17,000	17,000
TOTAL	\$986,000	\$1,015,017	\$1,166,716	\$1,234,647	\$1,348,928	\$1,390,932	\$1,445,676
PROJ'D OPER. EXPENSES <sup>(4)</sup>	\$283,400	\$297,100	\$309,300	\$323,200	\$337,200	\$349,400	\$362,600
PROJECTED NET REVENUES	\$702,600	\$717,917	\$857,416	\$911,447	\$1,011,728	\$1,041,532	\$1,083,076
DEBT SERVICE INCLUDING BONDS <sup>(5)</sup>	\$298,939	\$308,314	\$308,225	\$308,323	\$306,862	\$327,814	\$327,765
PRO FORMA DEBT SERVICE COVERAGE	2.4	2.3	2.8	3.0	3.3	3.2	3.3
PROJECTED NET CASH FLOW <sup>(6)</sup>	\$403,661	\$409,603	\$549,190	\$603,125	\$704,866	\$713,718	\$755,311

Toll Revenues are based upon the report of the Traffic Engineer. See APPENDIX C.

Evaded tolls are based on the 2013 Budget for 2013, and revenue leakage of 5% of Toll Revenues thereafter. See "THE TOLLWAY SYSTEM -Toll Collection" for a discussion of Evaded Tolls.

Evasion Recovery is based on the 2013 Budget for 2013, and is estimated at 74% of Evaded Tolls thereafter.

Based upon the report of the Consulting Engineer. See **APPENDIX B**.

See "ANNUAL DEBT SERVICE REQUIREMENTS" for certain assumptions relating to debt service on the outstanding Senior Bonds. This table does not take into account, either as revenue or as a credit against debt service, the estimated 35% Direct Payment Subsidies expected in connection with the 2009A Bonds and 2009B Bonds. Payments due January 1 of each year are deemed payable in the preceding year. See the definition of "Debt Service" in APPENDIX A.

<sup>(6)</sup> In each year, the projected net cash flow exceeds the projected Renewal and Replacement Deposit for such year set forth in the Consulting Engineer's Report. Totals may not add due to rounding.

# TABLE SEVEN (continued) (Dollars in Thousands)

	2020	2021	2022	2023	2024	2025
PROJECTED OPER. REVS						
Toll Revenues <sup>(1)</sup>						
Existing System Elgin O'Hare Corridor Subtotal – Toll Revs	\$1,470,910 <u>34,733</u> \$1,505,643	\$1,509,198 <u>34,926</u> \$1,544,125	\$1,529,260 35,211 \$1,564,471	\$1,608,364 <u>35,622</u> \$1,643,987	\$1,658,746 36,036 \$1,694,782	\$1,699,380 <u>36,582</u> \$1,735,963
Evaded Tolls <sup>(2)</sup>	(75,282)	(77,206)	(78,224)	(82,199)	(84,739)	(86,798)
Evasion Recovery <sup>(3)</sup>	55,709	57,133	57,885	60,828	62,707	64,231
Concession and Miscellaneous Revenues	10,000	10,000	10,000	10,000	10,000	11,000
Investment Income	17,000	18,000	18,000	19,000	19,000	19,000
TOTAL	\$1,513,070	\$1,552,051	\$1,572,133	\$1,651,615	\$1,701,750	\$1,743,395
PROJ'D OPER. EXPENSES <sup>(4)</sup>	\$377,400	\$390,800	\$403,800	\$420,500	\$436,000	\$451,300
PROJECTED NET REVENUES	\$1,135,670	\$1,161,251	\$1,168,333	\$1,231,115	\$1,265,750	\$1,292,095
DEBT SERVICE INCLUDING BONDS <sup>(5)</sup>	\$327,472	\$327,229	\$326,967	\$326,743	\$317,016	\$317,007
PRO FORMA DEBT SERVICE COVERAGE	3.5	3.6	3.6	3.8	4.0	4.1
PROJECTED NET CASH FLOW <sup>(6)</sup>	\$808,197	\$834,022	\$841,365	\$904,372	\$948,734	\$975,089

Based upon the report of the Traffic Engineer. See APPENDIX C.

Assumes revenue leakage of 5% of Toll Revenues. See "THE TOLLWAY SYSTEM – Toll Collection" for a discussion of Evaded Tolls.

Evasion Recovery is estimated at 74% of Evaded Tolls in 2013 and thereafter.

Based upon the report of the Consulting Engineer. See **APPENDIX B**.

<sup>(5)</sup> See "ANNUAL DEBT SERVICE REQUIREMENTS" for certain assumptions relating to debt service on the outstanding Senior Bonds. This table does not take into account, either as revenue or as a credit against debt service, the estimated 35% Direct Payment Subsidies expected in connection with the 2009A Bonds and 2009B Bonds. Payments due January 1 of each year are deemed payable in the preceding year. See the definition of "Debt Service" in APPENDIX A.

In each year, the projected net cash flow exceeds the projected Renewal and Replacement Deposit for such year set forth in the Consulting Engineer's Report. Totals may not add due to rounding.

# TABLE SEVEN (continued) (Dollars in Thousands)

	2026	2027	2028	2029	2030	2031
PROJECTED OPER. REVS						
Toll Revenues <sup>(1)</sup>						
Existing System Elgin O'Hare Corridor Subtotal – Toll Revs	\$1,726,543 <u>82,276</u> \$1,808,819	\$1,769,060 <u>83,414</u> \$1,852,475	\$1,808,922 <u>84,715</u> \$1,893,637	\$1,843,932 <u>85,628</u> \$1,929,560	\$1,877,419 <u>86,775</u> \$1,964,195	\$1,909,931 <u>87,932</u> \$1,997,862
Evaded Tolls <sup>(2)</sup>	(90,441)	(92,624)	(94,682)	(96,478)	(98,210)	(99,893)
Evasion Recovery <sup>(3)</sup>	66,926	68,542	70,065	71,394	72,675	73,921
Concession and Miscellaneous Revenues	11,000	11,000	11,000	11,000	12,000	12,000
Investment Income	19,000	20,000	20,000	20,000	20,000	20,000
TOTAL	\$1,815,304	\$1,859,393	\$1,900,020	\$1,935,476	\$1,970,660	\$2,003,890
PROJ'D OPER. EXPENSES <sup>(4)</sup>	\$468,200	\$484,900	\$502,100	\$519,600	\$537,600	\$556,200
PROJECTED NET REVENUES	\$1,347,104	\$1,374,493	\$1,397,920	\$1,415,876	\$1,433,060	\$1,447,690
DEBT SERVICE INCLUDING BONDS <sup>(5)</sup>	\$338,277	\$338,721	\$340,139	\$340,970	\$341,400	\$336,515
PRO FORMA DEBT SERVICE COVERAGE	4.0	4.1	4.1	4.2	4.2	4.3
PROJECTED NET CASH FLOW <sup>(6)</sup>	\$1,008,827	\$1,035,772	\$1,057,780	\$1,074,906	\$1,091,661	\$1,111,174

Based upon the report of the Traffic Engineer. See APPENDIX C.

Assumes revenue leakage of 5% of Toll Revenues. See "THE TOLLWAY SYSTEM – Toll Collection" for a discussion of Evaded Tolls.

Evasion Recovery is estimated at 74% of Evaded Tolls in 2013 and thereafter.

Based upon the report of the Consulting Engineer. See **APPENDIX B**.

See "ANNUAL DEBT SERVICE REQUIREMENTS" for certain assumptions relating to debt service on the outstanding Senior Bonds. This table does not take into account, either as revenue or as a credit against debt service, the estimated 35% Direct Payment Subsidies expected in connection with the 2009A Bonds and 2009B Bonds. Payments due January 1 of each year are deemed payable in the preceding year. See the definition of "Debt Service" in APPENDIX A.

In each year, the projected net cash flow exceeds the projected Renewal and Replacement Deposit for such year set forth in the Consulting Engineer's Report. Totals may not add due to rounding.

#### **CERTAIN RISK FACTORS**

The following is a discussion of certain risk factors attendant to an investment in the 2013A Bonds. The discussion is a non-exclusive summary and is not intended to be exhaustive. In order for potential investors to identify risk factors and make an informed investment decision, potential investors should be thoroughly familiar with the entire Official Statement. The order in which risks are presented is not intended to reflect either the likelihood that a particular event will occur or the relative significance of such an event. Moreover, there may be other risks or considerations associated with an investment in the 2013A Bonds in addition to those set forth herein.

# **General Factors Affecting Authority Revenues**

The information provided with respect to toll revenues collected by the Authority is based on historical data. The amount of future toll revenues to be collected by the Authority depends upon a number of factors including rates established by the Authority and levels and composition of traffic on the Tollway System. The Authority is authorized under the Act to make and establish or repeal toll rates as it deems necessary, expedient and sufficient to maintain and operate the Tollway System, including the payment of administrative expenses and discharge of all obligations as they become due and payable. The Authority is obligated under the Indenture to set tolls at levels that are expected to, with other revenues of the Authority, generate Net Revenues sufficient to meet its obligations under the Indenture. It is currently anticipated that the existing and future toll rate structures specified in TABLE ONE –TOLL RATES BY VEHICLE CLASS will be sufficient to meet the toll covenant of the Authority contained in the Indenture. See "SECURITY AND SOURCES OF PAYMENTS FOR THE 2013A BONDS – Toll Covenant". However, the amount of traffic on the Tollway System cannot be predicted with certainty and may underperform Authority expectations due to general economic conditions, diversion of some traffic to alternative non-toll routes to avoid toll rate increases, increased fuel costs, increased mileage standards or other factors.

# Forward Looking Statements; Traffic Engineer's Report and Consulting Engineer's Report

This Official Statement, including particularly the Traffic Engineer's Report attached as **APPENDIX C**, the Consulting Engineer's Report attached as **APPENDIX B** and the statements of the Authority contained herein based on those reports, contains statements relating to future results that are "forward looking statements" as defined in the Private Securities Litigation Reform Act of 1995. When used in this Official Statement, the words "estimate," "anticipate," "forecast," "project," "intend," "propose," "plan," "expect," "assume" and similar expressions identify forward looking statements. Such statements are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated in such forward looking statements.

The Traffic Engineer's Report and the traffic forecasts contained therein incorporate numerous assumptions and projections as to estimated revenues. No assurances can be given that the assumptions contained in such report will occur. Inevitably, some assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances may occur. Therefore, the actual results achieved during the forecast period will vary, and the variations may be material. See **APPENDIX C – "TRAFFIC ENGINEER'S REPORT."** 

The Consulting Engineer's Report and the forecasts contained therein incorporate numerous assumptions and projections as to capital program costs, operating expenses and needs for deposits to the Renewal and Replacement Account. No assurances can be given that the assumptions contained in such report will occur. Inevitably, some assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances may occur. Therefore, the actual results achieved

during the forecast period will vary, and the variations may be material. See APPENDIX B – "CONSULTING ENGINEER'S REPORT."

# The Move Illinois Program

In connection with the Move Illinois Program, as is the case with all of the Authority's capital programs, there is a possibility of time delays and cost increases resulting from various factors. Those factors include, but are not limited to (i) design and construction issues and resulting change orders and project additions or changes to project scope, (ii) environmental litigation or environmental administrative matters, (iii) changes in the timeliness or cost of acquiring right of way, (iv) unidentified factors related to the physical condition of the Tollway System, (v) utility relocation problems, (vi) hazardous materials, (vii) force majeure events, (viii) litigation, (ix) inflation, (x) insurance coverage matters, (xi) labor actions or (xii) insolvency or bankruptcy of the contractors or other inability of the contractors to perform during construction of the Move Illinois Program. As a result, there can be no assurances that the costs of completion of the Move Illinois Program will not exceed current estimates, or that the completion of the projects will not be delayed beyond the scheduled completion date. Variations in cost estimates and delays in construction could be material.

Delays in construction completion could impact the collection of toll revenues on the affected portion of the system. The Traffic Engineer's Report forecasts revenues based on the timely completion of projects. Actual revenues may differ from such forecasts and the difference may be material. See APPENDIX C – "TRAFFIC ENGINEER'S REPORT."

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

Adverse changes in the financial condition of certain third-party financial institutions may adversely affect the Authority's financial position. See "FINANCIAL INFORMATION – Swap Agreements" and "– Credit Facilities." Certain of the Authority's obligations associated with its contractual arrangements may create exposure for the Authority to such institutions, including but not limited to:

- Counterparty risk related to Swap Agreements used by the Authority to hedge its cost of funds, including any termination events;
- Risk of rating changes of the Authority's liquidity or credit support providers which may adversely affect the interest costs on the Authority's variable rate debt or which may render such variable rate debt unmarketable; and
- Risk of non-renewal of one or more of the Authority's liquidity or credit support
  agreements and inability to replace such agreements, which could result in a
  mandatory tender of the associated variable rate bonds which may adversely affect
  the debt service of such bonds and/or cause the Authority to refinance or pre-pay
  some or all of such bonds.

#### **Technological and Other Risk Factors**

The Authority is dependent on technology to conduct general business operations, including toll collection and customer account services which are dependent on the ability to process, record and monitor a large number of electronic transactions generated by equipment located throughout the Tollway System which record transponder and license plate information on vehicles. See "THE TOLLWAY SYSTEM – Toll Collections." If the Authority's financial, accounting, or other data processing systems fail or have other significant shortcomings, the Authority could be materially adversely affected. The Authority is similarly dependent on its employees and contractors. It could be materially adversely affected if one or more of its employees/contractors cause a significant operational

breakdown or failure, either as a result of human error or purposeful sabotage or fraudulent manipulation of one or more systems. In addition, as the Authority changes processes or introduces new services, the Authority may not fully appreciate or identify new operational risks that may arise from such changes. Any of these occurrences could diminish the Authority's ability to operate or result in potential liability.

The Authority may be subject to disruptions of its operating systems arising from events that are wholly or partially beyond the Authority's control, which may include, for example, security breaches; electrical or telecommunications outages; failures of computer servers or other damage to the Authority's property or assets; natural disasters; or events arising from local or larger scale political events, including terrorist acts. While the Authority believes that its current resiliency plans are both sufficient and adequate, there can be no assurance that such plans will fully mitigate all potential business continuity risks. Any failures or disruptions of the Authority's systems or operations could cause reputational damage and/or give rise to losses or liability that may require the Authority to expend significant resources to correct the failure or disruption, as well as expose the Authority to litigation or losses not covered by insurance.

Although the Authority devotes significant resources to maintain and regularly upgrade its systems and processes that are designed to protect the security of its computer systems, software, networks and other technology assets and the confidentiality, integrity and availability of information belonging to customers, there is no assurance that all of these security measures will provide absolute security. These risks may increase in the future as the Authority continues to increase its mobile-payment and other internet-based applications both internally and externally.

In addition, the Authority is also a member of a consortium of toll collection agencies from various states across the country that relies on technology to collect tolls, which technology is subject to similar risks. See "THE TOLLWAY SYSTEM – Toll Collections."

# **Legislative Action**

Legislation is introduced from time to time in the Illinois General Assembly which, if adopted, may affect the Authority or the Tollway System. The Authority cannot predict whether or not any such bills will be enacted into law or how any such legislation may affect the Authority and its ability to meet its payment obligations under the Indenture and with respect to the 2013A Bonds.

#### LITIGATION

There is no litigation pending or, to the knowledge of the Authority, threatened in any court, (i) questioning the existence or organization of the Authority, the title of any of the present officers thereof to their respective offices, or the validity of the 2013A Bonds or any other Authority bonds, or seeking to restrain or enjoin the issuance or delivery of the 2013A Bonds or any other Authority bonds, or questioning the power of the Authority to pledge Net Revenues in accordance with the terms of the Indenture or (ii) questioning the power of the Authority to collect tolls, fees, charges and rents or receive other Revenues or questioning the Authority's other powers that in either case would have a material adverse effect on the financial condition of the Authority or the issuance of the 2013A Bonds.

Lawsuits have been filed and are currently pending against the Authority, including claims for breach of contract, wrongful discharge, worker's compensation and personal injury to employees and non-employees. The Authority, after taking into consideration legal counsel's evaluation of such actions, is of the opinion that the outcome of these matters will have no material adverse effect on the financial condition of the Authority. The Authority has insurance coverage for certain risks, including commercial general liability and property damage. Each of these insurance coverages is subject to a self-

insured retention and deductibles. These self-insured retentions and deductibles range from \$10,000 to \$500,000, depending on the type of coverage.

#### APPROVAL OF LEGAL PROCEEDINGS

Certain legal matters incident to the authorization, issuance and sale of the 2013A Bonds are subject to the approving legal opinion of Chapman and Cutler LLP, Chicago, Illinois, as Bond Counsel ("Bond Counsel"), who has been retained by, and acts as, Bond Counsel to the Authority. Bond Counsel has not been retained or consulted on disclosure matters and has not undertaken to review or verify the accuracy, completeness or sufficiency of this Official Statement or other offering material relating to the 2013A Bonds and assumes no responsibility for the statements or information contained in or incorporated by reference in this Official Statement, except that in its capacity as Bond Counsel, Chapman and Cutler LLP has, at the request of the Authority, reviewed only the information in this Official Statement involving the description of the 2013A Bonds and the Indenture, the security for the 2013A Bonds and the description of the federal tax exemption of interest on the 2013A Bonds, including APPENDIX D - "Summary of Certain Provisions of the Indenture". This review was undertaken solely at the request and for the benefit of the Authority and did not include any obligation to establish or confirm factual matters set forth herein. The opinion of Bond Counsel for the 2013A Bonds will be in substantially the form included herein as APPENDIX F.

Certain legal matters in connection with the 2013A Bonds will be passed upon for the Authority by the Authority's General Counsel, and by the Authority's special counsel, Quarles & Brady LLP, Chicago, Illinois and for the Underwriters by their counsel, Michael Best & Friedrich LLP, Chicago, Illinois. Certain documents to which the Authority is a party will be approved as to form and constitutionality by the Attorney General of Illinois as *ex officio* attorney for the Authority.

#### UNDERWRITING

J.P. Morgan Securities LLC and Loop Capital Markets LLC, jointly as the representatives on behalf of themselves and the other underwriters listed on the cover of this Official Statement (the "Underwriters"), are expected to enter into a purchase contract with the Authority pursuant to which the Underwriters will jointly and severally agree, subject to certain customary conditions precedent to closing, to purchase the 2013A Bonds from the Authority at a purchase price of \$562,161,868.71 (representing the par amount of the 2013A Bonds less an Underwriters' discount of \$1,439,421.34, plus original issue premium of \$63,601,290.05).

Under the purchase contract, the Underwriters will be obligated to purchase all the 2013A Bonds. The 2013A Bonds may be offered and sold to certain dealers (including the Underwriters and other dealers depositing such Bonds into investment trusts) at prices lower than the initial offering prices, and such public offering prices may be changed, from time to time, by the Underwriters.

J.P. Morgan Securities LLC ("JPMS"), one of the Underwriters of the 2013A 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 2013A Bonds, at the original issue prices. Pursuant to each Dealer Agreement (if applicable to this transaction), each of UBSFS and CS&Co. will purchase 2013A Bonds from JPMS at the original issue price less a negotiated portion of the selling concession applicable to any 2013A Bonds that such firm sells.

Wells Fargo Securities is the trade name for certain securities-related capital markets and investment banking services of Wells Fargo & Company and its subsidiaries, including Wells Fargo Bank, National Association.

Wells Fargo Bank, National Association ("WFBNA"), one of the underwriters of the 2013A Bonds, has entered into an agreement (the "Distribution Agreement") with its affiliate, Wells Fargo Advisors, LLC ("WFA"), for the distribution of certain municipal securities offerings, including the 2013A Bonds. Pursuant to the Distribution Agreement, WFBNA will share a portion of its underwriting or remarketing agent compensation, as applicable, with respect to the 2013A Bonds with WFA. WFBNA also utilizes the distribution capabilities of its affiliates, Wells Fargo Securities, LLC ("WFSLLC") and Wells Fargo Institutional Securities, LLC ("WFIS"), for the distribution of municipal securities offerings, including the 2013A Bonds. In connection with utilizing the distribution capabilities of WFSLLC, WFBNA pays a portion of WFSLLC's expenses based on its municipal securities transactions. WFBNA, WFSLLC, WFIS, and WFA are each wholly-owned subsidiaries of Wells Fargo & Company.

"US Bancorp" is the marketing name of U.S. Bancorp and its subsidiaries, including U.S. Bancorp Investments, Inc., which is serving as one of the Underwriters of the 2013A Bonds.

#### FINANCIAL ADVISORS

The Authority has engaged Public Financial Management, Inc., Chicago, Illinois, and Acacia Financial Group, Inc., Chicago, Illinois, as Financial Advisors in connection with the Authority's issuance and sale of the 2013A Bonds. Under the terms of their engagements, the Financial Advisors are not obligated to undertake any independent verification of or assume any responsibility for the accuracy, completeness, or fairness of the information contained in this Official Statement.

#### TRAFFIC AND CONSULTING ENGINEERS

The sections of this Official Statement entitled "THE TOLLWAY SYSTEM -Routes"; and "THE CAPITAL PROGRAM - The Move Illinois Program; The Congestion-Relief Program; Potential Additional Capital Projects; Condition and Maintenance; and Renewal and Replacement Program and Improvement Program" were prepared, in part, on the basis of information supplied by AECOM Technical Services, Inc., Chicago, Illinois, the Consulting Engineer. APPENDIX B of this Official Statement was prepared by AECOM Technical Services, Inc. and contains information on the condition of the existing Tollway System, the history of the major improvement programs, projects in the Capital Program, and the projected needs of the Tollway System in terms of renewal and replacement deposits and future maintenance and operating costs for 2013 and through 2031. Such projections are based upon certain assumptions made by AECOM Technical Services, Inc. as set forth in their report. The report in APPENDIX B reflects the scope, cost and schedule of completion of the sub-projects that make up the Move Illinois Program and the Congestion-Relief Program, as developed by the Authority's Program Management Office (the "PMO"), which costs vary in detail based upon the stage of implementation of each sub-project as more fully described therein. The report provides the Consulting Engineer's opinion on the reasonableness of the overall estimate of the cost of construction (\$12.1 billion for the Move Illinois Program and \$5.8 billion for the Congestion-Relief Program, the latter of which is 87% complete) as developed by the PMO, but not on individual cost estimates. As stated in the report, market conditions and unforeseen events may affect the implementation and cost of the Capital Program and, on an annual basis, the Consulting Engineer's recommendations for Renewal and Replacement Deposits will reflect consideration of any adjustments to the Capital Program by the Authority.

The sections of this Official Statement entitled "THE TOLLWAY SYSTEM – Toll Rates; Historical Trends in Toll Transactions and Toll Revenues; and Historical Trends in Net Operating Revenues" and "THE CAPITAL PROGRAM – The Move Illinois Program" and "– The Congestion-Relief Program" were prepared, in part, on the basis of information supplied by CDM Smith Inc., Lisle, Illinois, the Traffic Engineer. Such information includes historical information regarding traffic and revenues of the Tollway System. APPENDIX C of this Official Statement was prepared by CDM Smith Inc. and contains information regarding traffic and revenues and forecasts of future traffic and revenues of the Tollway System. The forecasts in APPENDIX C are based on assumptions made by CDM Smith Inc. concerning future events and circumstances it believes are significant to the forecasts.

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

#### RATINGS

The 2013A Bonds have been assigned ratings of "Aa3" by Moody's Investors Service, Inc., "AA-" by Standard & Poor's Ratings Services, and "AA-" by Fitch Ratings. Each such rating reflects only the views of such rating agency. Any explanation of the significance of such ratings may be obtained only from the respective rating agencies. Certain information and materials concerning the 2013A Bonds, the Authority and the Tollway System, some of which have not been included in this Official Statement, were furnished to the rating agencies by the Authority and others. There is no assurance that any such rating will be maintained for any given period of time or that it will not be lowered or withdrawn entirely. Any downward revision or withdrawal of any such rating may have an adverse effect on the prices at which the 2013A Bonds may be resold. The Underwriters have undertaken no responsibility either to bring any proposed revision or withdrawal of a rating to the attention of the owners of the 2013A Bonds or to oppose any such revision or withdrawal.

#### **TAX MATTERS**

Federal tax law contains a number of requirements and restrictions which apply to the 2013A Bonds, including investment restrictions, periodic payments of arbitrage profits to the United States, requirements regarding the proper use of bond proceeds and the facilities financed therewith, and certain other matters. The Authority has covenanted to comply with all requirements that must be satisfied in order for the interest on the 2013A Bonds to be excludable from gross income for federal income tax purposes. Failure to comply with certain of such covenants could cause interest on the 2013A Bonds to become includible in gross income for federal income tax purposes retroactively to the date of issuance of the 2013A Bonds.

Subject to the Authority's compliance with the above-referenced covenants, under present law, in the opinion of Bond Counsel, interest on the 2013A Bonds is excludable from the gross income of the owners thereof for federal income tax purposes, and is not included as an item of tax preference in computing the federal alternative minimum tax for individuals and corporations, but interest

on the 2013A Bonds is taken into account, however, in computing an adjustment used in determining the federal alternative minimum tax for certain corporations.

In rendering its opinion, Bond Counsel will rely upon certifications of the Authority with respect to certain material facts within the Authority's knowledge. Bond Counsel's opinion represents its legal judgment based upon its review of the law and the facts that it deems relevant to render such opinion and is not a guarantee of a result.

The Internal Revenue Code of 1986, as amended (the "Code"), includes provisions for an alternative minimum tax ("AMT") for corporations in addition to the corporate regular tax in certain cases. The AMT, if any, depends upon the corporation's alternative minimum taxable income ("AMTI"), which is the corporation's taxable income with certain adjustments. One of the adjustment items used in computing the AMTI of a corporation (with certain exceptions) is an amount equal to 75% of the excess of such corporation's "adjusted current earnings" over an amount equal to its AMTI (before such adjustment item and the alternative tax net operating loss deduction). "Adjusted current earnings" would include certain tax-exempt interest, including interest on the 2013A Bonds.

Ownership of the 2013A Bonds may result in collateral federal income tax consequences to certain taxpayers, including, without limitation, corporations subject to the branch profits tax, financial institutions, certain insurance companies, certain S corporations, individual recipients of Social Security or Railroad Retirement benefits and taxpayers who may be deemed to have incurred (or continued) indebtedness to purchase or carry tax-exempt obligations. Prospective purchasers of the 2013A Bonds should consult their tax advisors as to applicability of any such collateral consequences.

The issue price (the "Issue Price") for each maturity of the 2013A Bonds is the price at which a substantial amount of such maturity of the 2013A Bonds is first sold to the public. The Issue Price of a maturity of the 2013A Bonds may be different from the price set forth, or the price corresponding to the yield set forth, on the inside cover page hereof.

Owners of 2013A Bonds who dispose of 2013A Bonds prior to the stated maturity (whether by sale, redemption or otherwise), purchase 2013A Bonds in the initial public offering, but at a price different from the Issue Price or purchase 2013A Bonds subsequent to the initial public offering should consult their own tax advisors.

If a 2013A Bond is purchased at any time for a price that is less than the 2013A Bond's stated redemption price at maturity, the purchaser will be treated as having purchased a 2013A Bond with market discount subject to the market discount rules of the Code (unless a statutory *de minimis* rule applies). Accrued market discount is treated as taxable ordinary income and is recognized when a 2013A Bond is disposed of (to the extent such accrued discount does not exceed gain realized) or, at the purchaser's election, as it accrues. The applicability of the market discount rules may adversely affect the liquidity or secondary market price of such 2013A Bond. Purchasers should consult their own tax advisors regarding the potential implications of market discount with respect to the 2013A Bonds.

An investor may purchase a 2013A Bond at a price in excess of its stated principal amount. Such excess is characterized for federal income tax purposes as "bond premium" and must be amortized by an investor on a constant yield basis over the remaining term of the 2013A Bond in a manner that takes into account potential call dates and call prices. An investor cannot deduct amortized bond premium relating to a tax-exempt bond. The amortized bond premium is treated as a reduction in the tax exempt interest received. As bond premium is amortized, it reduces the investor's basis in the 2013A Bond. Investors who purchase a 2013A Bond at a premium should consult their own tax advisors regarding the amortization of bond premium and its effect on the 2013A Bond's basis for purposes of

computing gain or loss in connection with the sale, exchange, redemption or early retirement of the 2013A Bond.

There are or may be pending in the Congress of the United States legislative proposals, including some that carry retroactive effective dates, that, if enacted, could alter or amend the federal tax matters referred to above or affect the market value of the 2013A Bonds. It cannot be predicted whether or in what form any such proposal might be enacted or whether, if enacted, it would apply to bonds issued prior to enactment. Prospective purchasers of the 2013A Bonds should consult their own tax advisors regarding any pending or proposed federal tax legislation. Bond Counsel expresses no opinion regarding any pending or proposed federal tax legislation.

The Internal Revenue Service (the "Service") has an ongoing program of auditing tax-exempt obligations to determine whether, in the view of the Service, interest on such tax-exempt obligations is includible in the gross income of the owners thereof for federal income tax purposes. It cannot be predicted whether or not the Service will commence an audit of the 2013A Bonds. If an audit is commenced, under current procedures the Service may treat the Authority as a taxpayer and the Bondholders may have no right to participate in such procedure. The commencement of an audit could adversely affect the market value and liquidity of the 2013A Bonds until the audit is concluded, regardless of the ultimate outcome.

Payments of interest on, and proceeds of the sale, redemption or maturity of, tax-exempt obligations, including the 2013A Bonds, are in certain cases required to be reported to the Service. Additionally, backup withholding may apply to any such payments to any 2013A Bond owner who fails to provide an accurate Form W-9 Request for Taxpayer Identification Number and Certification, or a substantially identical form, or to any 2013A Bond owner who is notified by the Service of a failure to report any interest or dividends required to be shown on federal income tax returns. The reporting and backup withholding requirements do not affect the excludability of such interest from gross income for federal tax purposes.

Interest on the 2013A Bonds is not exempt from present State of Illinois income taxes. Ownership of the 2013A Bonds may result in other state and local tax consequences to certain taxpayers. Bond Counsel expresses no opinion regarding any such collateral consequences arising with respect to the 2013A Bonds. Prospective purchasers of the 2013A Bonds should consult their tax advisors regarding the applicability of any such state and local taxes.

#### CONTINUING DISCLOSURE

The Authority will enter into a Continuing Disclosure Undertaking (the "Agreement") for the benefit of the Owners of the 2013A Bonds to provide notice of certain events to certain information repositories pursuant to the requirements of paragraph (b)(5) of Rule 15c2-12 (the "Rule") adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934. The events which will be subject to notices on an occurrence basis and a summary of other terms of the Agreement, including termination, amendment and remedies, are set forth below.

The Authority is in compliance with undertakings previously entered into by it pursuant to the Rule. A failure by the Authority to comply with the Agreement will not constitute a default under the Indenture and Owners of the 2013A Bonds are limited to the remedies described in the Agreement. See "CONTINUING DISCLOSURE – Consequences of Failure of the Authority to Provide Information" below. A failure by the Authority to comply with the Agreement must be reported in accordance with the Rule and must be considered by any broker, dealer or municipal securities dealer

before recommending the purchase or sale of the 2013A Bonds in the secondary market. Consequently, such a failure may adversely affect the transferability and liquidity of the 2013A Bonds and their market price.

The following is a brief summary of certain provisions of the Agreement and does not purport to be complete. The statements made under this caption are subject to the detailed provisions of the Agreement, a copy of which is available upon request from the Underwriters.

#### **Annual Report**

The Authority will, not later than ten months after the end of each Fiscal Year, provide to the Municipal Securities Rulemaking Board (the "MSRB") through its Electronic Municipal Market Access system for municipal securities disclosure (accessible at http://emma.msrb.org/default.aspx) ("EMMA"), or through any other electronic format or system prescribed by the MSRB for purposes of Section (b)(5) of the Rule, an Annual Report. Notwithstanding the foregoing, the audited Financial Statements of the Authority prepared in accordance with generally accepted accounting principles ("GAAP Statements") may be submitted separately from the balance of the Annual Report when such GAAP Statements are available. In the event that the GAAP Statements are not included with the Annual Report and will be submitted at a later date, the Authority will include unaudited financial information in the Annual Report and will indicate in the Annual Report the date on which the GAAP Statements are expected to be submitted. If the Annual Report (or GAAP Statements which were to be separately submitted) is not available by the date required above, the Authority will send a notice to EMMA or through any other electronic format or system prescribed by the MSRB that the Annual Report (or GAAP Statements) has not been filed.

The Authority's Annual Report will contain or incorporate by reference the following:

- (a) Operating data and other information regarding the Authority for the prior Fiscal Year of the same type as included in Tables One through Six under the caption "THE TOLLWAY SYSTEM" in this Official Statement; and
  - (b) GAAP Statements for the prior Fiscal Year.

Any or all of the items listed above may be incorporated by reference from other documents, including official statements for debt issues with respect to which the Authority is an "obligated person" (as defined by the Rule), which have been filed with the MSRB or the Securities and Exchange Commission. If the document incorporated by reference is a final official statement, it must be available from the MSRB. The Authority shall clearly identify each such other document so incorporated by reference.

#### **Events Notification**

The Authority covenants that it will disseminate in a timely manner, not in excess of ten business days after the occurrence of the "Reportable Event" (as described below), to the MSRB in an electronic format as prescribed by the MSRB, accompanied by identifying information as prescribed by the MSRB, the disclosure of the occurrence of a Reportable Event. Certain Reportable Events are required to be disclosed only to the extent that such Reportable Event is material, as materiality is interpreted under the Securities Exchange Act of 1934, as amended. The "Reportable Events," certain of which may not be applicable to the 2013A Bonds, are:

1. principal and interest payment delinquencies;

- 2. non-payment related defaults, if material:
- 3. unscheduled draws on debt service reserves reflecting financial difficulties;
- 4. unscheduled draws on credit enhancements reflecting financial difficulties;
- 5. substitution of credit or liquidity providers, or their failure to perform;
- 6. adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, notices of proposed issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the security, or other material events affecting the tax status of the security;
- 7. modifications to rights of security Owners, if material;
- 8. 2013A Bond calls, if material, and tender offers;
- 9. defeasances;
- 10. release, substitution or sale of property securing repayment of the securities, if material;
- 11. rating changes;
- bankruptcy, insolvency, receivership or similar event of the Authority (such an Event will be considered to have occurred in the following instances: the appointment of a receiver, fiscal agent or similar officer for the Authority in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the Authority, or if the jurisdiction of the Authority has been assumed by leaving the Authority and the Authority's officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Authority);
- 13. the consummation of a merger, consolidation, or acquisition involving the Authority or the sale of all or substantially all of the assets of the Authority, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and
- 14. appointment of a successor or additional trustee or the change of name of a trustee, if material.

# **Consequences of Failure of the Authority to Provide Information**

The Authority agrees in the Agreement to give notice in a timely manner to the MSRB of any failure to provide disclosure of the Annual Report when the same are due under the Agreement.

In the event of a failure of the Authority to comply with any provision of the Agreement, the Owner of any Bond may seek mandamus or specific performance by court order to cause the

Authority to comply with its obligations under the Agreement. A failure to comply under the Agreement shall not be deemed a default under the Indenture, and the sole remedy under the Agreement in the event of any failure of the Authority to comply with the Agreement shall be an action to compel performance.

#### **Amendment; Waiver**

Notwithstanding any other provision of the Agreement, the Authority may amend the Agreement, and any provision of the Agreement may be waived if:

- (1) The amendment or the waiver is 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 the Authority, or type of business conducted;
- (2) The Agreement, as amended, or the provision, as waived, would have complied with the requirements of the Rule at the time of the primary offering, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and
- (3) The amendment or waiver does not materially impair the interests of the Owners of the 2013A Bonds, as determined by parties unaffiliated with the Authority (such as the Trustee or Bond Counsel) at the time of the amendment.

# **Termination of Agreement**

The Agreement shall be terminated if the Authority shall no longer have any legal liability for any obligation on or relating to repayment of the 2013A Bonds under the Indenture. The Authority shall give notice to EMMA or through any other electronic format or system prescribed by the MSRB in a timely manner if this paragraph is applicable.

#### Additional Information

Nothing in the Agreement shall be deemed to prevent the Authority from disseminating any other information, using the means of dissemination set forth in the Agreement or any other means of communication, or including any other information in any notice of occurrence of a Reportable Event, in addition to that which is required by the Agreement. If the Authority chooses to include any information in any notice of occurrence of a Reportable Event in addition to that which is specifically required by the Agreement, the Authority shall have no obligation under the Agreement to update such information or include it in any future notice of occurrence of a Reportable Event.

#### **Dissemination Agent**

The Authority may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under the Agreement, and may discharge any such Agent, with or without appointing a successor Dissemination Agent.

## LEGALITY FOR INVESTMENT

Under the Act, the 2013A Bonds are eligible in the State of Illinois for investment of sinking funds, moneys or other funds belonging to or within the control of banks, bankers, trust companies, savings banks and institutions, building and loan associations, savings and loan associations,

investment companies, insurance associations, executors, administrators, guardians, trustees and other fiduciaries, municipal corporations, political subdivisions, public bodies, and public officers thereof.

#### FINANCIAL STATEMENTS

The financial statements of the Authority at December 31, 2011 and for the year then ended, included in **APPENDIX A** of this Official Statement, have been audited by KPMG LLP, independent auditors as set forth in their report thereon relating to such respective years appearing in **APPENDIX A** to this Official Statement.

The Authority has not requested nor did the Authority obtain any consent from the auditors to include the audited financial statements as an appendix to this Official Statement. KPMG LLP has not been engaged to perform and has not performed, since the date of its report included herein, any procedures on the financial statements addressed in that report. KPMG LLP also has not performed any procedures relating to this Official Statement.

#### ACCOUNTING AND INVESTMENT PRACTICES

Audited financial statements of the Authority conforming to generally accepted accounting principles at December 31, 2011 and for the year then ended are included herein in **APPENDIX A**.

The Authority's permitted investments are governed by the provisions of the Indenture. See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Definitions – *Investment Securities.*" See also Note 2 to Notes to Financial Statements included in APPENDIX A to this Official Statement for a description of the Authority's investments at December 31, 2011.

#### **MISCELLANEOUS**

The financial data and other information contained herein have been obtained from the Authority's records, audited financial statements and other sources that are believed to be reliable. There is no guarantee that any of the assumptions or estimates contained herein will be realized.

The summaries or descriptions of provisions of the Act, the Indenture, the 2013A Bonds and all references to other materials not purporting to be quoted in full, are only brief outlines of certain provisions thereof, are qualified in their entirety by reference to the complete documents relating to such matters and are subject to the full texts thereof.

The authorization, agreements and covenants of the Authority are set forth in the Indenture, and neither this Official Statement nor any advertisement of the 2013A Bonds is to be construed as a contract with the owners of the 2013A Bonds.

Any statements made in this Official Statement involving matters of opinion or of estimates, whether or not expressly so identified, are intended merely as such and not as representations of fact.

# **AUTHORIZATION**

The Authority has duly authorized the use and distribution of this Official Statement and the execution and delivery of this Official Statement by its Chair.

THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY

By: /s/ Paula Wolff Chair

# APPENDIX A FINANCIAL STATEMENTS

Audited Financial Statements for 2011





KPMG LLP Aon Center Suite 5500 200 East Randolph Drive Chicago, IL 60601-6436

#### Independent Auditors' Report

Honorable William G. Holland Auditor General State of Illinois and

The Board of Directors
Illinois State Toll Highway Authority:

As Special Assistant Auditors for the Auditor General, we have audited the accompanying basic financial statements of the Illinois State Toll Highway Authority (the Tollway), a component unit of the State of Illinois, as of and for the year ended December 31, 2011, as listed in the table of contents. These financial statements are the responsibility of the Tollway's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. 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 consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Tollway's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Illinois State Toll Highway Authority as of December 31, 2011, and the changes in its financial position and its cash flows for the year then ended in conformity with U.S. generally accepted accounting principles.

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 3 through 11 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic



financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Our audit for the year ended December 31, 2011 was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Tollway's basic financial statements. The accompanying supplementary information in Schedules 1 through 4 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The supplementary information for the year ended December 31, 2011 in Schedules 1 through 4 has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information for the year ended December 31, 2011 in Schedules 1 through 4 is fairly stated in all material respects in relation to the basic financial statements as a whole.

The introductory section and statistical section are presented for the purposes of additional analysis and are not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.



August 8, 2012

(A Component Unit of the State of Illinois)

Management's Discussion and Analysis (Unaudited)

December 31, 2011

This section offers readers a discussion and analysis of the financial performance of the Illinois State Toll Highway Authority (the Tollway), provides an overview of its financial activities, and identifies changes in the Tollway's financial position for the year ended December 31, 2011. Readers should use this section of this report in conjunction with the Tollway's basic financial statements.

#### 2011 Financial Highlights

- In August of 2011, the Tollway's Board of Directors approved a \$12 billion capital plan, called "Move Illinois, the Illinois Tollway Driving the Future", which established a guide for infrastructure investments to be made by the Tollway beginning in 2012 through 2026.
- To fund the capital outlays approved for "Move Illinois", the Tollway board set new toll rates for passenger vehicles using the system; these higher rates are effective January 1, 2012. Previous board action approved rate increases for commercial vehicles beginning in 2015. The capital plan also calls for new revenue bonds to be issued beginning in 2012 through 2022 totaling \$5 billion.
- Design and construction work on the Tollway's \$6 billion Congestion-Relief Program, initiated in 2005, totaled just \$122 million in 2011, with the bulk of that program's work completed.
- No bonds were issued in 2011. The Tollway significantly diversified the liquidity support for its variable rate bonds outstanding, replacing one provider of liquidity supporting its 2007A and 2008A series with seven new liquidity providers. The Tollway's underlying ratings of Aa3, AA-, and AA- from Moody's, S&P, and Fitch, respectively, were each confirmed in the first quarter of 2011 in connection with the re-offerings of the Tollway's 2007A and 2008A series of bonds that resulted in the previously-described liquidity provider replacements.
- Amounts on deposit on behalf of I-PASS account holders increased by 5.3% at year-end to \$147 million; the percentage of Tollway users paying by I-PASS was 84% in 2011. In 2004—the year before vehicles began to pay a penalty for not using I-PASS—the percentage was 54% of users.

#### **Basic Financial Statements**

The Tollway accounts for its operations and financial transactions in a manner similar to that used by private business enterprises: the accrual basis of accounting. In these statements revenue is recognized in the period in which it is earned, and an expense is recognized in the period in which it is incurred, regardless of the timing of its related cash flow.

(A Component Unit of the State of Illinois)

Management's Discussion and Analysis (Unaudited)

December 31, 2011

#### **Overview of the Financial Statements**

This discussion and analysis are intended to serve as an introduction to the Tollway's basic financial statements. For each fiscal year the Tollway's basic financial statements are comprised of the following:

- Balance Sheet
- Statement of Revenues, Expenses and Changes in Net Assets
- Statement of Cash Flows
- Notes to the Financial Statements

The Balance Sheet presents information on all of the Tollway's assets and liabilities, with the difference between the two reported as net assets. Increases or decreases in net assets, over time, may serve as a useful indicator of whether the financial position of the Tollway is improving or deteriorating.

The Statement of Revenues, Expenses and Changes in Net Assets presents revenue and expense information and how the Tollway's net assets changed during the measurement period as a result of these transactions.

The Statement of Cash Flows presents sources and uses of cash for the fiscal year, displayed in the following categories: cash flows from operating activities, cash flows from non-capital financing activities, cash flows from investing activities.

The notes provide additional information that is essential to a full understanding of the data provided in the basic financial statements. They are an integral part of the basic financial statements.

## Financial Analysis

#### 2011 Results Compared to 2010

#### **Operating Revenue**

The Tollway's total 2011 operating revenues exceeded those of the previous year, up \$24 million (almost 4%) at \$698 million, versus \$673 million in 2010. Almost all of this increase came from toll revenue which totaled \$653 million this year (up from \$629 million last year); as the regional economy showed signs of potential strength, traffic returned to the Tollway's roads and revenue grew. Revenue from evasion recovery was \$33 million for the year (versus \$35 million in 2010).

Concession revenue was steady at \$2.4 million and miscellaneous income (largely coming from reversal of prior year bad debt expense) was up slightly at \$10 million (from \$7 million in 2010).

(A Component Unit of the State of Illinois)

Management's Discussion and Analysis (Unaudited)

December 31, 2011

## **Operating Expenses**

Operating expenses, excluding depreciation, declined \$11 million (4%) in 2011, a reduction that was budgeted in line with a conservative revenue forecast for the year. The decreased operating budget was made possible by reducing funding for vacant personnel positions. Depreciation expense was stable year over year, 1% higher at \$318 million, up from \$315 million last year. The resulting operating income for the year, \$113 million, was up by \$32 million from the previous year due to the toll revenue increase and decreased operating expenses in 2011.

#### Non-operating Revenue and Expense

Net non-operating expense increased again this year (by 4%) from \$178 million last year to \$184 million for 2011, primarily the result of a \$9 million (5%) increase in interest and other financing costs which totaled \$207 million this year versus \$198 million in 2010. For 2011 the costs of bank liquidity supporting variable rate bonds increased with market rates for these types of facilities; this issue alone was responsible for the largest share of the finance cost increase. Again this year the Tollway received an interest rebate from the federal treasury relating to bonds which were issued as Build America Bonds. The 2011 rebate totaled \$16.2 million, up from \$16.1 million for 2010.

Also of note in this category of revenue and expense was another drop in investment income, from \$1.7 million last year to \$1.1 million in 2011, as a result of lower interest rates earned in the money markets.

(A Component Unit of the State of Illinois)

Management's Discussion and Analysis (Unaudited)

December 31, 2011

# ILLINOIS STATE TOLL HIGHWAY AUTHORITY

Changes in Net Assets

December 31, 2011 and 2010

		2011	2010
Revenues:			
Operating revenues:			
Toll revenue	\$	652,673,895	628,753,508
Toll evasion recovery		33,268,033	34,923,828
Concessions		2,421,164	2,387,581
Miscellaneous		9,507,791	7,385,229
Nonoperating revenues:			
Investment income		1,064,068	1,749,894
Capital contributed under intergovernmental agreements		2,262,302	
Revenues under intergovernmental agreements		6,753,264	10,734,092
Net increase in fair value of investments			287,425
Bond interest subsidy (Build America Bonds)		16,244,130	16,132,636
Miscellaneous	_	4,383,831	4,007,969
Total revenues		728,578,478	706,362,162
Expenses:			
Operating expenses:			
Engineering and maintenance of roadway and structures		44,803,170	45,768,938
Services and toll collection		106,466,995	112,640,323
Traffic control, safety patrol, and radio communications		23,071,556	22,821,776
Procurement, IT, finance, and administration		22,176,542	24,369,106
Insurance and employee benefits		69,987,945	71,681,922
Depreciation and amortization		318,165,918	314,933,275
Nonoperating expenses:			
Expenses under intergovernmental agreement		6,753,264	10,734,092
Intergovernmental expense (contributions)			1,858,125
Net increase in fair value of investments		299,150	
Net gain on disposal of property		1,157,639	26,357
Interest expense and amortization of financing cost	_	206,933,905	197,804,008
Total expenses	_	799,816,084	802,637,922
Decrease in net assets		(71,237,606)	(96,275,760)
Capital contributions		_	369,821
Net assets, beginning of year	_	1,921,987,538	2,017,893,477
Net assets, end of year	\$	1,850,749,932	1,921,987,538

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#### **Balance Sheet**

Though operating income increased in 2011 by \$32 million to a \$113 million result, this level was not sufficient to fund this year's net nonoperating expense of \$184 million. Thus the Tollway again posted a decrease in net assets for the year of \$71 million, but this result was improved from the \$96 million such decrease in 2010. These negative changes are the results of the increased depreciation expense recorded (a near doubling as a result of the Congestion-Relief Program) as assets from that program have been placed in service and the coincidental increases in interest expense for the bonds issued to fund these infrastructure projects from the Congestion-Relief Program. After this year's result, the Tollway's net assets totaled \$1.85 billion.

#### ILLINOIS STATE TOLL HIGHWAY AUTHORITY

#### Balance Sheet

December 31, 2011 and 2010

_	2011	2010
\$ -	1,478,879,860 5,112,248,814	1,294,685,301 5,263,500,475
\$ _	6,591,128,674	6,558,185,776
\$_	176,140,000 3,840,217,373 724,021,369	49,910,000 4,017,017,496 569,270,742
\$ _	4,740,378,742	4,636,198,238
\$	1,095,891,441 295,857,893 69,473 458,931,125	1,196,572,979 272,539,329 74,407 452,800,823
\$ _	1,850,749,932	1,921,987,538
	\$ = \$ = \$ =	5,112,248,814 \$ 6,591,128,674 \$ 176,140,000 3,840,217,373 724,021,369 \$ 4,740,378,742 \$ 1,095,891,441 295,857,893 69,473 458,931,125

#### Capital Assets and Debt Administration

#### **Capital Assets**

Capital assets continue to represent the largest category of Tollway assets, totaling \$5.1 billion at year-end (\$5.3 billion a year ago) comprising 78% of total Tollway assets.

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2011

2010

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#### **IILLINOIS STATE TOLL HIGHWAY AUTHORITY**

# Capital Assets

# December 31, 2011 and 2010

	<b>January 1, 2011</b>		2011	2011	December 31, 2011	
		Net Balance	Net Activity	Depreciation	Net Balance	
Land	\$	313,258,059	1,870,889		315,128,948	
Construction in progress		74,417,230	1,460,794	_	75,878,024	
Buildings		12,349,235	4,940,338	(2,531,846)	14,757,727	
Infrastructure		4,781,311,271	145,998,450	(303,987,539)	4,623,322,182	
Machinery and equipment		82,164,680	12,643,786	(11,646,533)	83,161,933	
Total	\$	5,263,500,475	166,914,257	(318,165,918)	5,112,248,814	

	•	January 1, 2010 Net Balance	2010 Net Activity	2010 Depreciation	December 31, 2010 Net Balance
Land	\$	304,331,535	8,926,524		313,258,059
Construction in progress		232,930,401	(158,513,171)	_	74,417,230
Buildings		14,211,662	532,596	(2,395,023)	12,349,235
Infrastructure		4,724,986,846	358,047,677	(301,723,252)	4,781,311,271
Machinery and equipment		87,304,318	5,675,362	(10,815,000)	82,164,680
Total	\$	5,363,764,762	214,668,988	(314,933,275)	5,263,500,475

#### **Long-Term Debt**

At year-end 2011, total revenue bonds payable had been reduced by \$53 million (from \$4.017 billion to \$3.963 billion), the result of a principal payment for 2011 (and thus a current liability at December 31, 2010). All debt issues and related transactions are described more fully in note 8.

#### Other Debt-Related Information

The 1998 Series B, 2007 Series A-1 and A-2, and 2008 Series A-1 and A-2 bonds were issued as variable rate bonds. In connection with the issuance of these variable rate series, the Tollway entered into ten separate variable-to-fixed interest rate exchange (swap) agreements in total notional amounts and with amortizations approximately matching the total principal amounts and amortizations of the Tollway's three variable rate bond issues. In connection with a refunding of a portion of the 2008 Series A-2 Bonds, one of the ten swap agreements was terminated on July 1, 2010, leaving nine swap agreements outstanding as of December 31, 2011. Two swap agreements are associated with the 1998 Series B bonds, in original amounts totaling \$123.1 million, all of which

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December 31, 2011

is outstanding as of December 31, 2011. Four swap agreements are associated with the 2007 Series A-1 and A-2 bonds, in original amounts totaling \$700 million, all of which is outstanding as of December 31, 2011. Three swap agreements are associated with the 2008 Series A-1 and A-2 bonds, in original amounts totaling \$478.875 million, all of which is outstanding as of December 31, 2011. The Tollway utilized these nine swap agreements in order to hedge against rising interest rates and to reduce its borrowing rate (as compared to the borrowing rate obtainable by issuing fixed rate bonds). The risks associated with these types of arrangements and the strategies employed by the Tollway to mitigate those risks are discussed in note 9 of the financial statements.

As more fully described in Note 8, liquidity support for the Tollway's \$478,900,000 2008 Series A Bonds was provided by a Standby Bond Purchase Agreement from Dexia Credit Local, New York Branch, until February 7, 2011, on which date the 2008 Series A Bonds were mandatorily tendered and subsequently remarketed as three separate sub-series, each sub-series liquidity supported by a standby bond purchase agreement that qualified as a Substitute Liquidity Facility under the Supplemental Indenture for the 2008 Series A Bonds. The Substitute Liquidity Facilities were provided by: JPMorgan Chase Bank, National Association; and PNC Bank, National Association.

As more fully described in Note 8, liquidity support for the Tollway's \$700,000,000 2007 Series A Bonds was provided by a Standby Bond Purchase Agreement from Dexia Credit Local, New York Branch, until March 18, 2011, on which date the 2007 Series A Bonds were mandatorily tendered and subsequently remarketed as six separate sub-series, each sub-series secured by a letter of credit that qualified as a Substitute Credit Facility under the Supplemental Indenture for the 2007 Series A Bonds. The Substitute Credit Facilities were provided by: Citibank, N.A.; PNC Bank, National Association; The Bank of Tokyo-Mitsubishi UFJ, Ltd., acting through its New York Branch; Harris N.A.; Northern Trust Company and Wells Fargo Bank, National Association.

Governmental Accounting Standards Board Statement No. 53, Accounting and Financial Reporting for Derivative Instruments (GASB 53) establishes accounting and financial reporting standards for the recognition, measurement, and disclosure of information regarding derivative instruments entered into by state and local governments. In accordance with the provisions of GASB 53 requiring its use in financial statements for periods beginning after June 15, 2009, the Tollway adopted the standard beginning with its fiscal year 2010 financial statements. Prior to adopting GASB 53, the Tollway accounted for its derivative contracts under the provisions of GASB Technical Bulletin 2003-1 (GASB TB 03-1). The requirements of GASB TB 03-1 have been superseded by GASB 53.

As of December 31, 2011, fair market value analyses of the swap agreements estimate that if the Tollway had terminated the swap contracts on that date, the Tollway would have been required to make payments of: a total of \$21.366 million for the two 1998 Series B swap agreements; a total of \$182.613 million for the four 2007 Series A-1 and A-2 swap agreements; and a total of \$103.329 million for the three 2008 Series A-1 and A-2 swap agreements.

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The amount of additional bonds that the Tollway may issue at any time is limited by the requirement that the projected net revenues are sufficient to meet the Net Revenue Requirement, after giving effect to the debt service attributable to such additional bonds. The Net Revenue Requirement is comprised of the amount necessary to cure deficiencies, if any, in debt service accounts and debt reserve accounts established under the Trust Indenture, plus the greater of (i) the sum of Aggregate Debt Service on Senior Bonds, the Junior Bond Revenue Requirement, and the Renewal and Replacement Deposit for such period, and (ii) 1.3 times the Aggregate Debt Service on Senior Bonds for such period (all capitalized terms as defined in the Trust Indenture). Under the terms of the Trust Indenture the revenue bond debt service coverage ratio for 2011 was 1.8x.

#### **IILLINOIS STATE TOLL HIGHWAY AUTHORITY**

Long Term Debt Analysis
December 31, 2011

		2011				
	Noncurrent	Current	Total			
Revenue bonds payable:						
Issue of 1992 Series A	\$	51,870,000	51,870,000			
Issue of 1998 Series A	190,765,000	1,170,000	191,935,000			
Issue of 1998 Series B	<del></del>	123,100,000	123,100,000			
Issue of 2005 Series A	770,000,000		770,000,000			
Issue of 2006 Series A-1	291,660,000		291,660,000			
Issue of 2007 Series A-1	350,000,000	_	350,000,000			
Issue of 2007 Series A-2	350,000,000	_	350,000,000			
Issue of 2008 Series A-1	383,100,000		383,100,000			
Issue of 2008 Series A-2	95,800,000	-	95,800,000			
Issue of 2008 Series B	350,000,000		350,000,000			
Issue of 2009 Series A	500,000,000		500,000,000			
Issue of 2009 Series B	280,000,000		280,000,000			
Issue of 2010 Series A-1	279,300,000		279,300,000			
Total revenue bonds payable	\$3,840,625,000	176,140,000	4,016,765,000			

Note: Amounts presented in this table exclude unamortized bond premiums and amounts deferred on refunding. Additional information concerning long-term debt can be found in note 8. Issue of 1998 Series B has been classified as a Current Liability due to a supporting liquidity facility that expires on December 28, 2012. The scheduled 1998 Series B principal payments are \$53,900,000 on January 1, 2016 and \$69,200,000 on January 1, 2017.

## **Factors Impacting Future Operations**

In 2012 the passenger vehicle toll increase takes effect and the Tollway commences the work of its \$12 billion Move Illinois capital program. Land acquisition and design work will begin for: the widening and rebuilding of the Jane Addams Memorial Tollway (I-90), including an interchange project at Illinois 47; the construction of the I-294/I-57 interchange; and the development of the Elgin-O'Hare West Bypass. The impact of these initiatives may include:

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2011

(A Component Unit of the State of Illinois)

Management's Discussion and Analysis (Unaudited)

December 31, 2011

- Significantly increased toll revenues which should lead to the Tollway posting a positive change in net assets for the year. Tollway forecasts for the fifteen-year span of the Move Illinois program call for about 60% of the program's costs to be funded by toll revenues.
- A small bond issue, the first of several that will finance the Move Illinois projects for which funds will be borrowed.

## Contacting the Tollway's Financial Management

This financial report is designed to provide our customers, bondholders, employees, and other stakeholders with an overview of the Tollway's finances and to demonstrate the Tollway's accountability for the funds it receives and deploys. Questions concerning this report or requests for additional financial information should be directed to the Controller, Illinois State Toll Highway Authority, 2700 Ogden Avenue, Downers Grove, Illinois 60515.

# ILLINOIS STATE TOLL HIGHWAY AUTHORITY (A Component Unit of the State of Illinois)

## Balance Sheet

December 31, 2011

## **Assets and Deferred Outflows of Resources**

Current assets: Current unrestricted assets: Cash and cash equivalents Accounts receivable, less allowance for doubtful accounts of \$307,177,981 Intergovernmental receivables Accrued interest receivable	\$	453,263,176 15,988,036 19,417,580 774
Risk management reserved cash and cash equivalents Prepaid insurance	_	15,024,842 10,182,438
Total current unrestricted assets		513,876,846
Current restricted assets: Cash and cash equivalents restricted for debt service Cash and cash equivalents – I-PASS accounts Accrued interest receivable Supplemental pension benefits assets		177,231,234 146,510,701 3,425 31,800
Total current restricted assets	_	323,777,160
Total current assets	-	837,654,006
Noncurrent assets and deferred outflow of resources:  Capital assets:  Land, improvements and construction in progress Other capital assets, net of accumulated depreciation		391,006,972 4,721,241,842
Total capital assets, net	_	5,112,248,814
Other noncurrent assets: Accounts receivable less current portion Deferred bond issuance costs, net of accumulated amortization of \$10,967,644 Deferred outflow of resources – accumulated decrease in fair	_	115,369,210 15,421,503
value of hedging derivatives	_	307,308,634
Total other noncurrent assets	_	438,099,347
Noncurrent restricted assets  Cash and cash equivalent - debt service reserve  Supplemental pension benefit assets		202,870,537 255,970
Total noncurrent restricted assets	_	203,126,507
Total noncurrent assets and deferred outflow of resources	_	5,753,474,668
Total assets and deferred outflow of resources	\$_	6,591,128,674

See accompanying notes to the financial statements.

(A Component Unit of the State of Illinois)

Balance Sheet

December 31, 2011

## Liabilities and Net Assets

Diameter and Tree 11996	
Liabilities:	
Current liabilities	
Payable from unrestricted current assets:	
Accounts payable	\$ 8,460,515
Accrued liabilities	61,966,498
Accrued compensated absences	4,690,858
Intergovernmental agreement payable	67,688,724
Risk management claims payable	13,377,479
Deposits and retainage	7,848,313
Total current liabilities payable from unrestricted	
current assets	164,032,387
Payable from current restricted assets:	
Supplemental pension benefit obligation	218,297
Current portion of revenue bonds payable	176,140,000
Accrued interest payable	84,247,303
Deposits and deferred revenue – I-PASS accounts	146,510,701
•	
Total current liabilities payable from current restricted	407 116 201
assets	407,116,301
Total current liabilities	571,148,688
Noncurrent liabilities:	
Revenue bonds payable, less current portion	3,840,625,000
Bond premium, less deferred amount on refunding	(407,627)
Accrued compensated absences	5,289,691
Derivative instrument liability	307,308,634
Deferred revenue, less accumulated amortization of	
\$28,452,184	16,414,356
Total noncurrent liabilities	4,169,230,054
Total liabilities	4,740,378,742
Net assets:	
Invested in capital assets, net of related debt	1,095,891,441
Restricted under trust indenture agreements	295,857,893
Restricted for supplemental pension benefits obligations	69,473
Unrestricted	458,931,125
Total net assets	1,850,749,932
Total liabilities and net assets	\$ 6,591,128,674
rotal machines and not assets	Ψ _ 0,3/1,120,0/7

See accompanying notes to the basic financial statements.

(A Component Unit of the State of Illinois)

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

Year ended December 31, 2011

Operating revenues:		
Toll revenue	\$	652,673,895
Toll evasion recovery		33,268,033
Concessions		2,421,164
Miscellaneous		9,507,791
Total operating revenues		697,870,883
Operating expenses:		
Engineering and maintenance of roadway and structures		44,803,170
Services and toll collection		106,466,995
Traffic control, safety patrol and radio communications		23,071,556
Procurement, IT, finance, and administration		22,176,542
Insurance and employee benefits		69,987,945
Depreciation and amortization		318,165,918
Total operating expenses	•	584,672,126
Operating income		113,198,757
Nonoperating revenues (expenses):		
Revenues under intergovernmental agreements		6,753,264
Expenses under intergovernmental agreements		(6,753,264)
Capital contributed under intergovernmental agreements		2,262,302
Investment income		1,064,068
Net decrease in fair value of investments		(299,150)
Net loss on disposal of property		(1,157,639)
Interest expense and amortization of financing costs		(206,933,905)
Bond interest subsidy (Build America Bonds)		16,244,130
Miscellaneous revenue		4,383,831
Total nonoperating revenues (expenses), net		(184,436,363)
Change in net assets		(71,237,606)
Net assets at beginning of year		1,921,987,538
Net assets at end of year	\$	1,850,749,932

See accompanying notes to the basic financial statements.

# ILLINOIS STATE TOLL HIGHWAY AUTHORITY (A Component Unit of the State of Illinois)

## Statement of Cash Flows

## Year ended December 31, 2011

Cash flows from operating activities: Cash received from sales and services	\$	766 204 571
Cash received from other governments for services	Ф	766,304,571 34,158,585
Cash paid for intergovernmental services		(1,278,111)
Cash payments to suppliers		(1,270,111) $(134,221,172)$
Cash payments to employees		(140,565,396)
Net cash provided by operating activities		524,398,477
Cash flows from capital and related financing activities:		
Acquisition and construction of capital assets		(196,030,399)
Cash paid for intergovernmental capital projects		984,191
Proceeds from sale of property		995,761
Principal paid on revenue bonds		(49,910,000)
Bond subsidy (Build America Bonds)		16,244,130
Interest expense and issuance costs paid on revenue bonds	,	(211,492,881)
Net cash used in capital and related financing activities		(439,209,198)
Cash flows from investing activities:		
Proceeds from sales and maturities of investments		25,150,950
Interest on investments		1,292,158
Net cash provided by investing activities		26,443,108
Net increase in cash and cash equivalents		111,632,387
Cash and cash equivalents at beginning of year		883,555,873
Cash and cash equivalents at end of year	\$	995,188,260
Reconciliation of cash and cash equivalents:		
Cash and cash equivalents	\$	453,263,176
Risk management reserved cash and cash equivalents		15,024,842
Cash and cash equivalents restricted for debt service		380,101,771
Cash and cash equivalents – I-PASS accounts		146,510,701
Supplemental pension benefit assets		287,770
Total cash and cash equivalents at end of year	\$	995,188,260

(A Component Unit of the State of Illinois)

## Statement of Cash Flows

Year ended December 31, 2011

Reconciliation of operating income to net cash provided by operating activities:		
Operating income	\$	113,198,757
Adjustments to reconcile operating income to net cash provided		
by operating activities:		
Depreciation and amortization		318,165,918
Provision for bad debt		47,642,875
Amortization of deferred revenue		(27,523,698)
Intergovernmental revenues		6,753,264
Intergovernmental expenses		(6,753,264)
Miscellaneous revenue		4,383,831
Effects of changes in operating assets and liabilities:		
Decrease in accounts receivable		7,881,080
Decrease in intergovernmental receivables		25,356,952
Decrease in lease receivable		28,444,750
Decrease in prepaid expenses		1,658,112
Decrease in net assets available for pension benefits		35,436
Increase in accounts payable		922,608
Decrease in accrued liabilities		(9,252,240)
Increase in accrued compensated absences		297,583
Decrease in supplemental pension obligation		(30,502)
Increase in intergovernmental agreement payable		7,523,522
Increase in deposits and deferred revenue – I-PASS		7,381,718
Decrease in risk management claims payable	_	(1,688,225)
Net cash provided by operating activities	\$ _	524,398,477

The fair value of investments increased by \$586,575 in 2011.

See accompanying notes to the basic financial statements.

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Notes to the Financial Statements

December 31, 2011

## (1) Summary of Significant Accounting Policies

The accounting policies and financial reporting practices of the Illinois State Toll Highway Authority (the Tollway), a component unit of the State of Illinois, conform to U.S. generally accepted accounting principles (GAAP), as promulgated by of the Governmental Accounting Standards Board (GASB). Additionally, the Tollway follows pronouncements of the Financial Accounting Standards Board (FASB) issued before December 1, 1989, which are not in conflict with GASB pronouncements. As permitted by GASB Statement No. 20, Accounting and Financial Reporting for Proprietary Funds and Other Governmental Entities That Use Proprietary Fund Accounting, the Tollway has elected to not apply FASB pronouncements issued after November 30, 1989.

## (a) Financial Reporting Entity

The Illinois State Toll Highway Authority, a component unit of the State of Illinois, was created by an Act of the General Assembly of the State of Illinois – the Toll Highway Act – for the purpose of constructing, operating, regulating, and maintaining a toll highway or a system of toll highways and, in connection with the financing of such projects, is authorized to issue revenue bonds which shall be retired from revenues derived from the operation of the Tollway. Under the provisions of the Act, no bond issue of the Tollway, or any interest thereon, is an obligation of the State of Illinois. In addition, the Tollway is empowered to issue refunding bonds for the purpose of refunding any revenue bonds issued under the provisions of the Act, which are then outstanding.

The enabling legislation empowers the Tollway's Board of Directors with duties and responsibilities which include, but are not limited to, the ability to approve and modify the Tollway's budget, the ability to approve and modify toll rates and fees charged for use of the system, the ability to employ and discharge employees as necessary in the judgment of the Tollway, and the ability to acquire, own, use, hire, lease, operate, and dispose of personal property, real property, and any interest therein.

Component units are separate legal entities for which the primary government is legally accountable. The Tollway is a component unit of the State of Illinois for financial reporting purposes because exclusion would cause the State's financial statements to be incomplete. The governing body of the Tollway is an 11 member Board of Directors of which nine members are appointed by the Governor of Illinois with the advice and consent of the Illinois Senate. The Governor and the Secretary of the Illinois Department of Transportation are also members of the Tollway's Board of Directors. These financial statements are included in the State's comprehensive annual financial report and the State's separately issued basic financial statements. The Tollway itself does not have any component units.

## (b) Basis of Accounting

The Tollway accounts for its operations and financings in a manner similar to private business enterprises; the intent is that costs of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges.

Accordingly, the Tollway is accounted for as a proprietary fund (enterprise fund) using the flow of economic resources measurement focus and the accrual basis of accounting. Under this measurement

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#### Notes to the Financial Statements

December 31, 2011

focus, all assets and all liabilities associated with the Tollway's operations are included in the Balance Sheet. Revenue is recognized in the period in which it is earned and expenses are recognized in the period in which incurred.

Nonexchange transactions, in which the Tollway receives value without directly giving equal value in return, include fines for toll evasion.

## (c) Cash Equivalents

With the exception of \$29.7 million in locally held funds, all cash and investments are held for the Tollway either by the Illinois State Treasurer (the Treasurer) as custodian or by the bond trustee under the Tollway's Trust Indenture.

For purposes of the Statement of Cash Flows, the Tollway considers all highly liquid investments, including assets with a maturity of three months or less when purchased, repurchase agreements and all other investments held on its behalf by the Treasurer to be cash equivalents, as these investments are available upon demand.

#### (d) Investments

The Tollway reports investments at fair value in its Balance Sheet with the corresponding changes in fair value being recognized as an increase or decrease to nonoperating revenue in the Statement of Revenues, Expenses and Changes in Net Assets. All investments are held for the Tollway either by the Treasurer as custodian or by the bond trustee under the Tollway's Trust Indenture.

The primary objectives in the investment of Tollway funds is to ensure the safety of principal, while managing liquidity to meet the financial obligations of the Tollway, and to provide the highest investment return using authorized instruments.

All investments in U.S. Treasury and agency issues owned by the Tollway are reported at fair value. Fair value for the investments in Illinois Funds (a state-operated money market fund, sponsored by the Treasurer in accordance with Illinois state law that is rated AAAm by Standard & Poor's rating agency) is equal to the value of the pool shares. State statute requires that Illinois Funds comply with the Illinois Public Funds Investment Act. Other funds held for the Tollway by the Treasurer and the bond trustee are invested in U.S. Treasury and agency issues at the direction of the Tollway and in repurchase agreements which are recorded at face value which approximates fair value.

The Trust Indenture, as amended, under which the Tollway's revenue bonds were issued, authorizes the Tollway to invest in U.S. Treasury and agency issues, money market funds comprised of U.S. Treasury and agency issues, repurchase agreements thereon, time deposits, and certificates of deposit. All funds held by the Tollway's bond trustee were held in compliance with these restrictions for the year ended December 31, 2011.

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Notes to the Financial Statements

December 31, 2011

### (e) Accounts Receivable

The Tollway's accounts receivable consist of various toll charges and amounts due from individuals and commercial, governmental and other entities. A provision for doubtful accounts has been recorded for the estimated amount of uncollectible accounts.

## (f) Prepaid Expenses and Inventory

Certain payments made to vendors reflect costs applicable to future accounting periods and are recorded as prepaid expenses. The Tollway's inventory items consist mostly of consumable supplies that are quickly turned over and therefore the payments for such are directly expensed.

#### (g) Noncurrent Cash and Investments

Cash and investments that are externally restricted for sinking or reserve funds for the purchase or construction of capital or other noncurrent assets are classified as noncurrent assets in the balance sheet.

#### (h) Capital Assets

Capital assets include the historical cost of land and improvements, easements, roadway and transportation structures (infrastructure), buildings and related improvements, software and equipment. Most expenses for the maintenance and repairs to the roadway and transportation structures, buildings, and related improvements are charged to operations when incurred. All expenses for land, buildings, infrastructure, and construction in progress that increase the value or productive capacities of assets are capitalized. The Tollway capitalizes interest related to construction in progress.

Building 20 Years Infrastructure 5 to 40 Years Machinery, equipment and software 5 to 30 Years

## (i) Accounting for Leases

The Tollway makes a distinction between 1) capital leases that effectively transfer from the lessor to the lessee substantially all the risks and benefits incidental to ownership of the leased assets and 2) operating leases under which the lessor effectively retains all such risks and benefits.

When the Tollway is lessee: Assets acquired under capital leases are included as capital assets in the Balance Sheet. Assets acquired under capital leases are recorded at the lesser of the present value of the future minimum lease payments or the fair value of the asset at the beginning of the lease term and depreciated on a straight-line basis to the Statement of Revenues, Expenses and Changes in Net Assets, over the useful life of the asset. A corresponding liability is established and minimum lease payments are allocated between the liability and interest expense. Capital lease liabilities are classified as current and noncurrent, depending on when the principal component of the lease payment is due. The Tollway is currently not a lessee under any capital leases.

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When the Tollway is lessor: A lease receivable (current and noncurrent) is established on the Balance Sheet which represents the future minimum rental payments guaranteed under the terms of the capital lease. Lease receipts are credited to the Statement of Revenues, Expenses and Changes in Net Assets in the periods in which they are earned over the term of the lease, as this represents the pattern of benefits derived from the leased assets. A bad debt reserve is recorded for any amounts whose collectibility is uncertain. The Tollway is currently not a lessor under any capital leases.

## (j) Long-Term Accounts Receivable

In the course of business the Tollway may enter into contracts with various parties that call for payments to the Tollway to be made at a date more than one year in the future. These receivables are classified as long-term. See note 7.

## (k) Deferred Bond Issuance Costs

Costs incurred in connection with the issuance of the bonds are amortized over the lives of the bonds, using the straight line method.

## (l) Debt Refunding

In accordance with GASB Statement No. 23, Accounting and Financial Reporting for Refundings of Debt Reported by Proprietary Activities, when the Tollway refunds any of its bonds the difference between the carrying amount of the new bonds and the reacquisition price of the old bonds is deferred and amortized over the lesser of the life of the old debt or the life of the new debt, using the straight line method.

## (m) Deferred Revenue

The Tollway recognizes revenue when earned. Amounts received in advance of the periods in which related services are rendered are recorded as a liability under "Deferred Revenue."

## (n) Swap Agreements

In accordance with GASB Statement No. 53, Accounting and Financial Reporting for Derivative Instruments, the Tollway records changes in fair values of the hedging derivative instruments (swaps) as deferred outflows of reserves or deferred inflows in the Balance Sheet.

#### (o) Net Assets

The Balance Sheet presents the Tollway's assets and liabilities with the difference reported in three categories:

Invested in capital assets, net of related debt consists of capital assets, net of accumulated depreciation and reduced by outstanding balances for revenue bonds and other debt that is attributable to the acquisition, construction, or improvement of those assets.

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Restricted Net Assets results when constraints placed on net asset use are either externally imposed by creditors, grantors, contributors, and the like, or imposed by law through constitutional provisions or enabling legislation.

Unrestricted net assets consist of net assets that do not meet the criteria of the two preceding categories.

At December 31, 2011, restrictions on net assets consisted of:

Restricted for Supplemental Pension Obligation reflects monies set aside for a retirement plan established in 1990 and suspended in 1994.

Restricted under Trust Indenture Agreements result when constraints placed on net assets use either externally imposed creditors, grantors, contributors, and the like, or imposed by law through constitutional provisions or enabling legislations.

When both restricted and unrestricted resources are available for a specific use, it is the Tollway's policy to use restricted resources first, then unrestricted resources as they are needed.

## (p) Toll Revenue

Toll Revenue is recognized in the month in which the transaction occurs. Revenue from Toll Evasion Recovery is recognized when the notice is issued. Both tolls and fines recovered under the evasion recovery enforcement system are recorded as Toll Evasion Recovery revenue.

#### (q) Classification of Operating Revenues and Expenses

The Tollway's operating revenues and expenses consist of revenues earned and expenses incurred relating to the operation and maintenance of its tollway system. All other revenues and expenses are reported as nonoperating revenues and expenses or as special items.

Toll Evasion revenue is shown net of bad debt expense; concession revenue includes only oasis revenue.

## (r) Risk Management

The Tollway has self-insured risk retention programs with stop-loss limits for current employee group health and workers' compensation claims and has provided accruals for estimated losses arising from such claims.

## (s) Use of Estimates in Preparing Financial Statements

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

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## (2) Cash and Investments

#### (a) Custodial Credit Risk -Deposits

Custodial credit risk is the risk that an institution holding Tollway deposits may fail and expose the Tollway to a loss if the Tollway's deposits were not returned upon maturity or demand. State law (30 ILCS 230/2C) requires that all deposits of public funds be covered by FDIC insurance or eligible collateral. The Tollway has no policy that would further limit the requirements under state law. As of December 31, 2011, the Tollway's deposits were not exposed to custodial credit risk.

## (b) Schedule of Investments

As of December 31, 2011, the Tollway had the following investments and maturities:

			Investment matur	rities (in years)
Investment type	·	Fair Value	Less Than 1	1-5
Repurchase agreements	\$	435,070,000	435,070,000	<del></del>
Money market funds*		380,101,772	380,101,772	
Illinois Funds*		149,229,810	149,229,810	<del></del>
	\$	964,401,582	964,401,582	

<sup>\*</sup>Weighted average maturity is less than one year.

## (c) Interest Rate Risk

Interest rate risk is the risk that the fair value of investments will decrease as a result of an increase in interest rates. As a means of limiting its exposure to fair value losses from rising interest rates, and as a means of managing liquidity, the Tollway's investment policy requires that the majority of Tollway funds be invested in instruments with maturities of less than one year. No investment is to exceed a ten-year maturity.

## (d) Credit and Concentration Risks

Credit risk is the risk that the Tollway will not recover its investments due to the ability of the counterparty to fulfill its obligation. The Tollway's investment policy limits investment of Tollway funds to securities guaranteed by the United States government; obligations of agencies and instrumentalities of the United States; municipal bonds with credit ratings not lower than the credit rating of the Tollway's senior bonds outstanding; interest-bearing savings accounts, certificates of deposit, or bank time deposits with institutions which meet specified capitalization requirements; money market mutual funds registered under the Investment Company Act of 1940; the Illinois Funds; and repurchase agreements of government securities as defined in the Government Securities Act of 1986. Investment policy further requires that the investment portfolio be diversified in terms of specific maturity, specific issuer, or specific class of securities. Final maturities are limited to

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ten years; the majority of Tollway funds should be invested in maturities of less than one year. The Tollway was in compliance with these policies during 2011.

The Tollway's investments in debt securities (or the securities underlying the repurchase agreements) were rated by Moody's/Standard & Poors as follows for the year ended December 31, 2011:

	2011 ( Mo	oody's/S&P)
Investment type	Fair value	Rating
Repurchase agreements	\$ 435,070,000	Aaa/AA+
Money market funds	380,101,772	Aaa-mf/AAAm
Illinois Funds	149,229,810	N/R/AAAm

## (3) Current Accounts Receivable

The Tollway's accounts receivable consist of various toll charges and other amounts due from individuals and commercial and other entities. A provision for doubtful accounts has been recorded for estimated uncollectible amounts. As of December 31, 2011, the Tollway's accounts receivable balance consists of the following:

	_	Gross accounts receivables	Allowance for doubtful accounts	Net accounts receivables
Tolls	\$	2,360,302	(426,330)	1,933,972
Toll evasion recovery		316,090,767	(303,216,202)	12,874,565
Oases receivable		125,875	_	125,875
Damage claims/emergency service		188,597	(154,627)	33,970
Insufficient I-PASS		2,016,684	(1,435,547)	581,137
Over dimension vehicle permit		35,410		35,410
Fiber optic agreements		53,593	<del></del>	53,593
Workers' compensation		7,891	_	7,891
Other	_	2,286,898	(1,945,275)	341,623
Total non-governmental receivables	_	323,166,017	(307,177,981)	15,988,036
Various local and municipal government		9,065,877		9,065,877
IAG Agencies		5,922,329		5,922,329
Other agencies of the state of Illinois	_	4,429,374		4,429,374
Total intergovernmental receivables	_	19,417,580		19,417,580
Total receivables	\$ _	342,583,597	(307,177,981)	35,405,616

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## (4) Prepaid Insurance

In the normal course of business the Tollway pays for services that will be consumed beyond the current year. These are established as prepaid expenses. As of December 31, 2011 the Tollway has \$10.2 million in prepaid insurance.

#### (5) Leases Receivable

In 2011, the Tollway reviewed its leases with oasis operators and determined that they should be recorded as operating leases. This caused removal of assets and liabilities each in the amount of \$28.4 million for leases previously deemed capital leases; no change in net assets resulted.

During 2002, the Tollway, as lessor, entered into two 25-year lease agreements for the oasis system (a retail lease and a fuel lease). Under the terms of each lease, the lessee is financially responsible for rebuilding and renovating the oasis structures. At the end of each lease, ownership of the improvements reverts to the Tollway. In the retail lease, the lessee is responsible for the payment of all expenses associated with administration and operation of the facilities including the securing of tenants. In the fuel lease, the lessee is responsible for the operation of the service station and car wash facilities.

The fuel lease agreement requires the parties to complete a remediation program to ensure that the oasis system is in compliance with current environmental laws and that compliance continues for the term of the lease. The Tollway is solely responsible for the remediation program until it has received "No Further Remediation" (NFR) letters from the Illinois Environmental Protection Agency (IEPA), except for the DeKalb oases and the Belvidere North, which are the responsibility of ExxonMobil. The IEPA issues the letters along with approval for reimbursement of approved expenses from the LUST (Leaking Underground Storage Tank) Fund established by Congress. Remediation work has been completed at all oasis sites. NFR letters have been received for seven remediation sites controlled by the Tollway and by ExxonMobil for the DeKalb Oasis. The remaining sites are being contested over reimbursement and other technical issues. The Tollway believes that the remaining NFR letters, relating to five additional sites, will be issued without further material remediation costs being incurred.

The future minimum lease payments receivable under these agreements as of December 31, 2011 are as follows:

Year ended December 31		Retail lease	Fuel lease	Total leases
2012	\$	814,333	900,250	1,714,583
2013		850,000	900,250	1,750,250
2014		850,000	900,250	1,750,250
2015		850,000	900,250	1,750,250
2016		850,000	900,250	1,750,250
Thereafter	-	8,783,332	9,302,586	18,085,918
	\$ _	12,997,665	13,803,836	26,801,501

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The future minimum leases receivable do not include contingent rents that maybe owed under these leases should the lessees generate revenues in excess of specific target amounts. The future minimum lease amounts above will be treated as revenue in the year they are earned.

## (6) Capital Assets

Changes in capital assets for the year ended December 31, 2011 are as follows:

	Balance January 1	Additions and transfers in	Deletions and transfers out	Balance December 31
Nondepreciable capital assets:				
Land and improvements	\$ 313,258,059	1,870,889	_	315,128,948
Construction in progress	74,417,230	114,539,658	(113,078,864)	75,878,024
Total nondepreciable capital assets	387,675,289	116,410,547	(113,078,864)	391,006,972
Depreciable capital assets:				
Buildings	47,126,097	4,940,338	<del>-</del>	52,066,435
Infrastructure	6,803,140,467	145,998,450	(70,996,903)	6,878,142,014
Machinery and equipment	201,813,099	14,797,186	(7,592,616)	209,017,669
Total depeciable capital assets	7,052,079,663	165,735,974	(78,589,519)	7,139,226,118
Less accumulated depreciation:				
Buildings	(34,776,862)	(2,531,846)	_	(37,308,708)
Infrastructure	(2,021,829,196)	(303,987,539)	70,996,903	(2,254,819,832)
Machinery and equipment	(119,648,419)	(11,646,533)	5,439,216	(125,855,736)
Total accumulated depreciation	(2,176,254,477)	(318,165,918)	76,436,119	(2,417,984,276)
Total depreciable capital assets, net	4,875,825,186	(152,429,944)	(2,153,400)	4,721,241,842
Total capital assets, net	\$ 5,263,500,475	(36,019,397)	(115,232,264)	5,112,248,814

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## (7) Long-Term Accounts Receivable

As of December 31, 2012, long-term accounts receivable consisted of the following:

	-	2011 Long-term receivables
Will County – I-355 South Intergovernmental Agreement	\$	642,857
Village of Lemont – I-355 South Intergovernmental Agreement		642,857
City of Lockport – I-355 South Intergovernmental Agreement		642,857
Village of Homer Glen – I-355 South Intergovernmental Agreement		642,857
Village of New Lenox – I-355 South Intergovernmental Agreement		642,857
Various Other Intergovernmental Agreements		1,949,439
Illinois Department of Transportation	_	110,205,486
	\$ _	115,369,210

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## (8) Revenue Bonds Payable

Changes in revenue bonds payable for the year ended December 31, 2011 are as follows:

	Balance January 1	Additions	Deletions	Balance December 31	due within one year
1992 Series A	\$ 100,665,000		(48,795,000)	51,870,000	51,870,000
1998 Series A	193,050,000		(1,115,000)	191,935,000	1,170,000
1998 Series B	123,100,000			123,100,000	123,100,000
2005 Series A	770,000,000			770,000,000	_
2006 Series A-1	291,660,000	_		291,660,000	
2007 Series A-1 & A-2	700,000,000		_	700,000,000	
2008 Series A-1 & A-2	478,900,000			478,900,000	
2008 Series B	350,000,000			350,000,000	
2009 Series A	500,000,000	_	_	500,000,000	
2009 Series B	280,000,000	<del></del>	<del></del>	280,000,000	
2010 Series A-I	279,300,000			279,300,000	
Totals	4,066,675,000		(49,910,000)	4,016,765,000 \$	176,140,000
Unamortized deferred					
amounts on refunding	(58,351,768)		4,458,174	(53,893,594)	
Unamortized bond premium	58,604,264	378,290	(5,496,587)	53,485,967	
Current portion of					
revenue bonds payable	(49,910,000)	(176,140,000)	49,910,000	(176,140,000)	
Revenue bonds payable, net of current					
portion	\$ 4,017,017,496	(175,761,710)	(1,038,413)	3,840,217,373	

#### (a) Series 1992A Bonds

On October 14, 1992, the Tollway issued \$459,650,000 of Priority Revenue Bonds (1992 Series A). The bonds financed certain capital projects, a deposit to the Debt Reserve Account and costs of issuance. A portion of the bonds were advance refunded. The bonds that remain outstanding were sold bearing an interest rate of 6.30% at a price of 99.75% and mature on January 1, 2012. Such outstanding bonds in the amount of \$51,870,000 are not subject to redemption prior to maturity and are not insured.

## (b) Series 1998A and 1998B Bonds

On December 30, 1998, the Tollway issued \$325,135,000 of Refunding Revenue Bonds, consisting of \$202,035,000 of Fixed Rate Bonds (1998 Series A) and \$123,100,000 of Variable Rate Bonds (1998 Series B). The bonds financed the refunding of a portion (\$313,105,000) of the Tollway's Series 1992A Bonds and also financed costs of issuance and accrued interest on the Series 1998 Series A Bonds. The Series 1998A Bonds were sold with fixed interest rates ranging from 4.0% to 5.5% at yields which produced a net Original Issue Premium of \$17,414,484. The Series 1998A

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Amounts

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Bonds, of which \$191,935,000 were outstanding as of December 31, 2011, are not subject to redemption prior to maturity. The Series 1998B Bonds were initially issued in a weekly mode and were in a weekly mode during all of 2011. Interest rates on the Series 1998B Bonds are set pursuant to the terms of a remarketing agreement. While in the weekly mode, the Series 1998B Bonds are subject to demand for purchase from bondholders. Any such Series 1998B Bonds tendered for purchase are remarketed pursuant to the terms of a remarketing agreement. Series 1998B Bonds tendered for purchase that are not remarketed to new bondholder(s) are funded, subject to certain conditions, under a Standby Bond Purchase Agreement among the Tollway, the Trustee, and Helaba Landesbank Hessen Thuringen Girozentale, New York Branch.

Any such funded bonds that remain unremarketed on the expiration date of the Standby Bond Purchase Agreement and such Standby Bond Purchase Agreement is not replaced are required to be repaid by the Tollway on the earlier of: (i) their originally scheduled payment date; and (ii) over a five-year period in five equal annual installments, commencing on the expiration date of the Standby Bond Purchase Agreement. The cost of the Standby Bond Purchase Agreement is a per annum fee of 60 basis points times the commitment amount of \$129,339,315, which consists of \$123,100,000 for payment of principal and \$6,239,315 for payment of interest. While in the weekly mode, the Series 1998B Bonds are subject to optional redemption by the Tollway. The expiration date of the Standby Bond Purchase Agreement is December 28, 2012. The Series 1998B Bonds are classified as a current liability due to the supporting liquidity facility expiring on December 28, 2012. The scheduled 1998 Series B principal payments are \$53,900,000 on January 1, 2016 and \$69,200,000 on January 1, 2017. The final maturity of the 1998A and 1998B bonds is January 1, 2016 and January 1, 2017. respectively. The scheduled payments of principal and interest of the Series 1998A Bonds and the Series 1998B Bonds are insured by Assured Guaranty Municipal Corp., pursuant to the acquisition of the original bond insurer, Financial Security Assurance Inc., by Assured Guaranty Ltd. on July 1, 2009. The variable interest rate of the Series 1998B Bonds as of December 31, 2011 was 0.20%.

## (c) Series 2005A Bonds

On June 22, 2005, the Tollway issued \$770,000,000 of Senior Priority Revenue Bonds (2005 Series A). This issuance was the first bond sale utilized to fund capital projects in the Congestion-Relief Program. The bonds also financed a deposit to the Debt Reserve Account and costs of issuance. All maturities of the bonds were sold bearing 5.0% interest rates except for the \$101,935,000 par amount maturing on January 1, 2020 which was sold bearing an interest rate of 4.125%. The bonds were sold at yields which produced a net Original Issue Premium of \$60,405,414. The bonds are subject to optional redemption on or after July 1, 2015 at a redemption price of 100% of the principal amount plus accrued interest. The scheduled payments of principal and interest of this bond series are insured by Assured Guaranty Municipal Corp., pursuant to the acquisition of the original bond insurer, Financial Security Assurance Inc., by Assured Guaranty Ltd. on July 1, 2009, except for the principal and interest of the \$101,935,000 maturing January 1, 2020, which is not insured. The final maturity of the bonds is January 1, 2023.

## (d) Series 2006A Bonds

On June 7, 2006, the Tollway issued \$1,000,000,000 of Senior Priority Revenue Bonds (2006 Series A-1 and Series A-2). This issuance was the second bond sale utilized to fund capital

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projects in the Congestion-Relief Program. The bonds also financed a deposit to the Debt Reserve Account and costs of issuance. All maturities of the bonds were sold bearing 5.0% interest rates at yields which produced an Original Issue Premium of \$40,019,000. The bonds are subject to optional redemption on or after July 1, 2016 at a redemption price of 100% of the principal amount plus accrued interest. The scheduled payments of principal and interest of the bonds are insured by Assured Guaranty Municipal Corp., pursuant to the acquisition of the original bond insurer, Financial Security Assurance Inc., by Assured Guaranty Ltd. on July 1, 2009. On February 7, 2008, \$708,340,000 of the 2006 Series A bonds was advance refunded by the Tollway's \$766,200,000 Variable Rate Senior Refunding Revenue Bonds (2008 Series A-1 and Series A-2). The final maturity of the bonds is January 1, 2025.

#### (e) Series 2007A Bonds

On November 1, 2007, the Tollway issued \$700,000,000 of Variable Rate Senior Priority Revenue Bonds (2007 Series A-1 and Series A-2). This issuance was the third bond sale utilized to finance capital projects in the Congestion-Relief Program. The bonds also financed a deposit to the Debt Reserve Account and costs of issuance. The bonds were sold at par and initially issued in a weekly mode and remained in a weekly mode through fiscal year end 2011. Interest rates on the bonds are set pursuant to the terms of a remarketing agreement. While in the weekly mode, the bonds are subject to optional redemption by the Tollway. While in the weekly mode, the bonds are subject to bondholder tender for purchase. Any such bonds tendered for purchase are remarketed pursuant to the terms of a remarketing agreement. Funding for any bonds tendered for purchase that failed to be remarketed was available, under certain circumstances, from a Liquidity Facility in the form of a Standby Bond Purchase Agreement provided by Dexia Credit Local, New York Branch, through March 18, 2011, the effective expiration date of that Standby Bond Purchase Agreement. On March 18, 2011, the 2007 Series A Bonds were mandatorily tendered and, on the same day, subsequently remarketed as six separate sub-series, each sub-series secured by a direct-pay letter of credit that qualified as a Substitute Credit Facility under the Supplemental Indenture for the 2007 Series A Bonds. The following provides information regarding each of those sub-series and their respective letters of credit.

## (f) Series 2007A-1a Bonds

On March 18, 2011 the Tollway remarketed \$175,000,000 of the 2007 Series A-1 Bonds as 2007 Series A-1a (the "Series 2007A-1a Bonds"). While in the weekly mode, the Series 2007A-1a Bonds are secured by a direct-pay letter of credit from Citibank, N.A. pursuant to the terms of the Letter of Credit Reimbursement Agreement dated as of March 1, 2011 between the Tollway and such bank (the "2007A-1a Credit Facility"). The 2007A-1a Credit Facility provides up to \$175,000,000 for payment of principal and up to \$3,595,891 for payment of interest (equivalent to 50 days' accrued interest at 15%), including for the purpose of paying the principal and interest portions of the purchase price of any bonds tendered and not remarketed. To the extent the 2007A-1a Credit Facility is utilized to purchase bonds tendered and not remarketed, and such bonds continue to fail to be remarketed, then such bonds are required to be repaid by the Authority thirteen months after the termination date of the 2007A-1a Credit Facility. The 2007A-1a Credit Facility, if not extended, is currently scheduled to expire on January 31, 2014. The cost of the 2007A-1a Credit Facility is a per

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annum fee of 75 basis points times the stated amount of \$178,595,891. The variable interest rate of the Series 2007A-1a Bonds as of December 31, 2011 was 0.10%.

#### (g) Series 2007A-1b Bonds

On March 18, 2011 the Tollway remarketed \$175,000,000 of the 2007 Series A-1 Bonds as 2007 Series A-1b (the "Series 2007A-1b Bonds"). While in the weekly mode, the Series 2007A-1b Bonds are secured by a direct-pay letter of credit from PNC Bank, National Association pursuant to the terms of the Reimbursement Agreement dated as of March 1, 2011 between the Tollway and such bank (the "2007A-1b Credit Facility"). The 2007A-1b Credit Facility provides up to \$175,000,000 for payment of principal and up to \$3,236,302 for payment of interest (equivalent to 45 days' accrued interest at 15%), including for the purpose of paying the principal and interest portions of the purchase price of any bonds tendered and not remarketed. To the extent the 2007A-1b Credit Facility is utilized to purchase bonds tendered and not remarketed, and to the extent such bonds continue to either (a) remain unremarketed for 180 days or (b) remain unremarketed on the termination date of the Series 2007A-1b Credit Facility, then such funded bonds are required to be repaid by the Authority in equal semi-annual principal installments commencing on the earlier of (i) 180 days after the date the bonds were purchased and (ii) the termination date of the 2007A-1b Credit Facility, and ending on the date three years following the date the bonds were purchased. The 2007A-1b Credit Facility, if not extended, is currently scheduled to expire on March 18, 2014. The cost of the 2007A-1b Credit Facility is a per annum fee of 75 basis points times the stated amount of \$178,236,302. The variable interest rate of the Series 2007A-1b Bonds as of December 31, 2011 was 0.08%.

## (h) Series 2007A-2a Bonds

On March 18, 2011 the Tollway remarketed \$100,000,000 of the 2007 Series A-2 Bonds as 2007 Series A-2a (the "Series 2007A-2a Bonds"). While in the weekly mode, the Series 2007A-2a Bonds are secured by a direct-pay letter of credit from The Bank of Tokyo-Mitsubishi UFJ, Ltd., acting through its New York Branch pursuant to the terms of the Reimbursement Agreement dated as of March 1, 2011 between the Tollway and such bank (the "2007A-2a Credit Facility"). The 2007A-2a Credit Facility provides up to \$100,000,000 for payment of principal and up to \$1,849,316 for payment of interest (equivalent to 45 days' accrued interest at 15%), including for the purpose of paying the principal and interest portions of the purchase price of any bonds tendered and not remarketed. To the extent the 2007A-2a Credit Facility is utilized to purchase bonds tendered and not remarketed, and to the extent such bonds continue to remain unremarketed on the first business day of the fourth calendar month immediately succeeding the date the bonds were purchased, then such funded bonds are required to be repaid by the Authority in equal quarterly principal installments commencing on such first business day of the fourth calendar month immediately succeeding the date the bonds were purchased, and ending on the date four (4) years after the date the bonds were purchased. The 2007A-2a Credit Facility, if not extended, is currently scheduled to expire on March 17, 2014. The cost of the 2007A-2a Credit Facility is a per annum fee of 75 basis points times the stated amount of \$101,849,316. The variable interest rate of the Series 2007A-2a Bonds as of December 31, 2011 was 0.09%.

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#### (i) Series 2007A-2b Bonds

On March 18, 2011 the Tollway remarketed \$107,500,000 of the 2007 Series A-2 Bonds as 2007 Series A-2b (the "Series 2007A-2b Bonds"). While in the weekly mode, the Series 2007A-2b Bonds are secured by a direct-pay letter of credit from Harris, N.A. pursuant to the terms of the Reimbursement Agreement dated as of March 1, 2011 between the Tollway and such bank (the "2007A-2b Credit Facility"). The 2007A-2b Credit Facility provides up to \$107,500,000 for payment of principal and up to \$1,988,014 for payment of interest (equivalent to 45 days' accrued interest at 15%), including for the purpose of paying the principal and interest portions of the purchase price of any bonds tendered and not remarketed. To the extent the 2007A-2b Credit Facility is utilized to purchase bonds tendered and not remarketed, and to the extent such bonds continue to either (a) remain unremarketed for 180 days or (b) remain unremarketed on the termination date of the Series 2007A-2b Credit Facility, then such funded bonds are required to be repaid by the Authority in equal quarterly principal installments commencing on the date one year following the earlier of (i) 180 days after the date the bonds were purchased and (ii) the termination date of the 2007A-2b Credit Facility, and ending on the date two years following the earlier of (i) 180 days after the date the bonds were purchased and (ii) the termination date of the 2007A-2b Credit Facility. The 2007A-2b Credit Facility, if not extended, is currently scheduled to expire on March 18, 2014. The cost of the 2007A-2b Credit Facility is a per annum fee of 75 basis points times the stated amount of \$109,488,014. The variable interest rate of the Series 2007-2b Bonds as of December 31, 2011 was 0.08%.

## (j) Series 2007A-2c Bonds

On March 18, 2011 the Tollway remarketed \$55,000,000 of the 2007 Series A-2 Bonds as 2007 Series A-2c (the "Series 2007A-2c Bonds"). While in the weekly mode, the Series 2007A-2c Bonds are secured by a direct-pay letter of credit from The Northern Trust Company pursuant to the terms of the Reimbursement Agreement dated as of March 1, 2011 between the Tollway and such bank (the "2007A-2c Credit Facility"). The 2007A-2c Credit Facility provides up to \$55,000,000 for payment of principal and up to \$1,017,123 for payment of interest (equivalent to 45 days' accrued interest at 15%), including for the purpose of paying the principal and interest portions of the purchase price of any bonds tendered and not remarketed. To the extent the 2007A-2c Credit Facility is utilized to purchase bonds tendered and not remarketed, and to the extent such bonds continue to either (a) remain unremarketed for 270 days or (b) remain unremarketed on the termination date of the Series 2007A-2c Credit Facility, then such funded bonds are required to be repaid by the Authority in equal semi-annual principal installments commencing on the next ensuing January 1 or July 1 after the earlier of (i) 270 days after the date the bonds were purchased and (ii) the termination date of the 2007A-2c Credit Facility, and ending on the date three years following the earlier of (i) 270 days after the date the bonds were purchased and (ii) the termination date of the 2007A-2c Credit Facility. The 2007A-2c Credit Facility, if not extended, is currently scheduled to expire on March 18, 2014. The cost of the 2007A-2c Credit Facility is a per annum fee of 70 basis points times the stated amount of \$56,017,123. The variable interest rate of the Series 2007A-2c Bonds as of December 31, 2011 was 0.07%.

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#### (k) Series 2007A-2d Bonds

On March 18, 2011 the Tollway remarketed \$87,500,000 of the 2007 Series A-2 Bonds as 2007 Series A-2d (the "Series 2007A-2d Bonds"). While in the weekly mode, the Series 2007A-2d Bonds are secured by a direct-pay letter of credit from Wells Fargo Bank, National Association pursuant to the terms of the Reimbursement Agreement dated as of March 1, 2011 between the Tollway and such bank (the "2007A-2d Credit Facility"). The 2007A-2d Credit Facility provides up to \$87,500,000 for payment of principal and up to \$1,618,151 for payment of interest (equivalent to 45 days' accrued interest at 15%), including for the purpose of paying the principal and interest portions of the purchase price of any bonds tendered and not remarketed. To the extent the 2007A-2d Credit Facility is utilized to purchase bonds tendered and not remarketed, and to the extent such bonds continue to either (a) remain unremarketed for 181 days or (b) remain unremarketed on the termination date of the Series 2007A-2d Credit Facility, then such funded bonds are required to be repaid by the Authority in equal semi-annual principal installments commencing on the earlier of (i) 181 days after the date the bonds were purchased and (ii) the termination date of the 2007A-2d Credit Facility, and ending on the date three years following the date the bonds were purchased. The 2007A-2d Credit Facility, if not extended, is currently scheduled to expire on March 18, 2013. The cost of the 2007A-2d Credit Facility is a per annum fee of 85 basis points times the stated amount of \$89,118,151. The variable interest rate of the Series 2007A-2d Bonds as of December 31, 2011 was 0.08%.

## (1) Series 2008A Bonds

On February 7, 2008, the Tollway issued \$766,200,000 of Variable Rate Senior Refunding Revenue Bonds (\$383,100,000 2008 Series A-1 and \$383,100,000 2008 Series A-2). The bonds advance refunded \$708,340,000 of the then-outstanding 2006 Series A Bonds and financed costs of issuance. Payments of principal when due at maturity and interest are insured by Assured Guaranty Municipal Corp., pursuant to the acquisition of the original bond insurer, Financial Security Assurance Inc., by Assured Guaranty Ltd. on July 1, 2009. The bonds were sold at par and initially issued in a weekly mode and have remained in a weekly mode through fiscal year end 2011. On July 1, 2010, \$287,300,000 of the 2008 Series A-2 bonds was refunded by the Tollway's \$279,300,000 Toll Highway Senior Refunding Revenue Bonds (2010 Series A-1). \$383,100,000 of the 2008 Series A-1 Bonds and \$95,800,000 of the 2008 Series A-2 Bonds remain outstanding. Interest rates on the bonds are set pursuant to the terms of a remarketing agreement. While in the weekly mode, the bonds are subject to optional redemption by the Tollway. While in the weekly mode, the bonds are subject to bondholder tender for purchase. Any such bonds tendered for purchase are remarketed pursuant to the terms of a remarketing agreement. Funding for any bonds tendered for purchase that failed to be remarketed was available, under certain circumstances, from a Liquidity Facility in the form of a Standby Bond Purchase Agreement provided by Dexia Credit Local, New York Branch, through February 7, 2011, the effective expiration date of that Standby Bond Purchase Agreement. On February 7, 2011, the 2008 Series A Bonds were mandatorily tendered and, on the same day, subsequently remarketed as three separate sub-series, each sub-series secured by a standby bond purchase agreement that qualified as a Substitute Liquidity Facility under the Supplemental Indenture for the 2008 Series A Bonds. The following provides information regarding each of those sub-series and their respective standby bond purchase agreements.

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#### (m) Series 2008A-1a Bonds

On February 7, 2011 the Tollway remarketed \$191,500,000 of the 2008 Series A-1 Bonds as 2008 Series A-1a (the "Series 2008A-1a Bonds"). While in the weekly mode, liquidity support is provided for the Series 2008A-1a Bonds by a Standby Bond Purchase Agreement dated February 1, 2011 among the Tollway, the Trustee, and JPMorgan Chase Bank, National Association (the "2008A-1a Liquidity Facility"). The 2008A-1a Liquidity Facility provides up to \$191,500,000 for payment of principal and up to \$2,203,562 for payment of interest (equivalent to 35 days' accrued interest at 12%) for the purpose of paying the principal and interest portions of the purchase price of any bonds tendered and not remarketed. To the extent the 2008A-1a Liquidity Facility is utilized to purchase bonds tendered and not remarketed, and to the extent such bonds continue to remain unremarketed for 91 days, then such funded bonds are required to be repaid by the Authority in ten equal semi-annual principal installments commencing on the first business day of the sixth full month following the date 91 days after the date the bonds were purchased. The 2008A-1a Liquidity Facility, if not extended, is currently scheduled to expire on February 7, 2013. The cost of the 2008A-1a Liquidity Facility is a per annum fee of 75 basis points times the commitment amount of \$193,703,562. The variable interest rate of the Series 2008A-1a Bonds as of December 31, 2011 was 0.13%.

#### (n) Series 2008A-1b Bonds

On February 7, 2011 the Tollway remarketed \$191,600,000 of the 2008 Series A-1 Bonds as 2008 Series A-1b (the "Series 2008A-1b Bonds"). While in the weekly mode, liquidity support is provided for the Series 2008A-1b Bonds by a Standby Bond Purchase Agreement dated February 1, 2011 among the Tollway, the Trustee, and PNC Bank, National Association (the "2008A-1b Liquidity Facility"). The 2008A-1b Liquidity Facility provides up to \$191,600,000 for payment of principal and up to \$2,141,721 for payment of interest (equivalent to 34 days' accrued interest at 12%) for the purpose of paying the principal and interest portions of the purchase price of any bonds tendered and not remarketed. To the extent the 2008A-1b Liquidity Facility is utilized to purchase bonds tendered and not remarketed, and to the extent such bonds continue to remain unremarketed for 180 days, then such funded bonds are required to be repaid by the Authority in equal semi-annual principal installments commencing on the first business day of the sixth full month following the date 180 days after the date the bonds were purchased and ending on the date five years after the date the bonds were purchased. The 2008A-1b Liquidity Facility, if not extended, is currently scheduled to expire on February 7, 2014. The cost of the 2008A-1b Liquidity Facility is a per annum fee of 75 basis points times the commitment amount of \$193,741,721. The variable interest rate of the Series 2008A-1b Bonds as of December 31, 2011 was 0.12%.

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#### (o) Series 2008A-2 Bonds

On February 7, 2011 the Tollway remarketed \$95,800,000 of the 2008 Series A-2 Bonds (the "Series 2008A-2 Bonds"). While in the weekly mode, liquidity support is provided for the Series 2008A-2 Bonds by a Standby Bond Purchase Agreement dated February 1, 2011 among the Tollway, the Trustee, and JPMorgan Chase Bank, National Association (the "2008A-2 Liquidity Facility"). The 2008A-2 Liquidity Facility provides up to \$95,800,000 for payment of principal and up to \$1,102,357 for payment of interest (equivalent to 35 days' accrued interest at 12%) for the purpose of paying the principal and interest portions of the purchase price of any bonds tendered and not remarketed. To the extent the 2008A-2 Liquidity Facility is utilized to purchase bonds tendered and not remarketed, and to the extent such bonds continue to remain unremarketed for 91 days, then such funded bonds are required to be repaid by the Authority in ten equal semi-annual principal installments commencing on the first business day of the sixth full month following the date 91 days after the date the bonds were purchased. The 2008A-2 Liquidity Facility, if not extended, is currently scheduled to expire on February 7, 2013. The cost of the 2008A-2 Liquidity Facility is a per annum fee of 75 basis points times the commitment amount of \$96,902,357. The variable interest rate of the Series 2008A-2 Bonds as of December 31, 2011 was 0.09%.

## (p) Series 2008B Bonds

On November 18, 2008, the Tollway issued \$350,000,000 of Toll Highway Senior Priority Revenue Bonds (2008 Series B). This issuance was the fourth bond sale utilized to finance capital projects in the Congestion-Relief Program. The bonds also financed capitalized interest through June 30, 2009 and costs of issuance. The bonds were sold as a term bond maturing on January 1, 2033 bearing a 5.50% interest rate and priced to yield 5.70%, which produced an Original Issue Discount of \$9,142,000. The bonds are subject to optional redemption on or after January 1, 2018 at a redemption price of 100% of the principal amount plus accrued interest. The bonds are not insured. In connection with the bond issue, a Surety Policy in the face amount of \$100,000,000 was purchased from Berkshire Hathaway Assurance Corporation for deposit in the Debt Reserve Account. The Surety Policy expires on January 1, 2033.

#### (a) Build America Bonds

The American Recovery and Reinvestment Act of 2009 authorized the Tollway to issue taxable bonds known as "Build America Bonds" to finance capital expenditures for which it could issue tax-exempt bonds and to elect to receive a subsidy payment from the federal government equal to 35% of the amount of each interest payment on such taxable bonds. The receipt of such subsidy payments by the Tollway is subject to certain requirements, including the filing of a form with the Internal Revenue Service prior to each interest payment date. The subsidy payments are not full faith and credit obligations of the United States of America. The Series 2009A Bonds and Series 2009B Bonds are taxable Build America Bonds. All other Tollway bonds are tax-exempt bonds.

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#### (r) Series 2009A Bonds

On May 21, 2009, the Tollway issued \$500,000,000 of Toll Highway Senior Priority Revenue Bonds (Taxable 2009 Series A) (Build America Bonds - Direct Payment). The Tollway made an irrevocable election to designate the bonds as Build America Bonds pursuant to the provisions of Section 54AA(g) of the Internal Revenue Code of 1986. The Tollway covenanted to apply Build America Bonds subsidy payments to the payment of debt service. This issuance was the fifth bond sale utilized to finance capital projects in the Congestion-Relief Program. The bonds also financed a deposit to the Debt Reserve Account and costs of issuance. The bonds were sold as two term bonds maturing on January 1, 2024 and January 1, 2034. The bonds maturing January 1, 2024 bear an interest rate of 5.293%, were sold at a price of 100% of the par amount of the bonds, and are subject to optional redemption on or after January 1, 2019 at a redemption price of 100% of the principal amount plus accrued interest. The bonds maturing January 1, 2034 bear an interest rate of 6.184%, were sold at a price of 100% of the par amount of the bonds, and are subject to optional redemption at a redemption price equal to the greater of: (i) 100% of the principal amount of the bonds to be redeemed; and (ii) the sum of the present value of the remaining scheduled payments of principal and interest to the maturity date of the bonds to be redeemed, discounted to the date on which the bonds are to be redeemed on a semi-annual basis at the yield(s) to maturity as of such redemption date of the United States Treasury security(ies) with a constant maturity(ies) most nearly equal to the period from the redemption date to the maturity date(s) of the bonds to be redeemed, plus 30 basis points, plus, in each case, accrued interest. The bonds are not insured.

## (s) Series 2009B Bonds

On December 8, 2009, the Tollway issued \$280,000,000 of Toll Highway Senior Priority Revenue Bonds (Taxable 2009 Series B) (Build America Bonds - Direct Payment). The Tollway made an irrevocable election to designate the bonds as Build America Bonds pursuant to the provisions of Section 54AA(g) of the Internal Revenue Code of 1986. The Tollway covenanted to apply Build America Bonds subsidy payments to the payment of debt service. This issuance was the sixth bond sale utilized to finance capital projects in the Congestion-Relief Program. The bonds also financed a deposit to the Debt Reserve Account and costs of issuance. In connection with the issuance of the bonds, the Tollway deposited \$12,000,000 funds on hand into the debt service account to pay the bond interest due on June 1, 2010 and a portion of the bond interest due on December 1, 2010. The bonds mature on December 1, 2034. The bonds bear an interest rate of 5.851% and were sold at a price of 100% of the par amount of the bonds. The bonds are subject to optional redemption at a redemption price equal to the greater of: (i) 100% of the principal amount of the bonds to be redeemed; and (ii) the sum of the present value of the remaining scheduled payments of principal and interest to the maturity date of the bonds to be redeemed, discounted to the date on which the bonds are to be redeemed on a semi-annual basis at the yield to maturity as of such redemption date of the United States Treasury security with a constant maturity most nearly equal to the period from the redemption date to the maturity date of the bonds, plus 25 basis points. The bonds are not insured.

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#### (t) Series 2010A-1 Bonds

On July 1, 2010, the Tollway issued \$279,300,000 of Toll Highway Senior Refunding Revenue Bonds (2010 Series A-1). The bonds refunded \$287,300,000 of the Tollway's \$383,100,000 then-outstanding 2008 Series A-2 Bonds. The bonds also financed costs of issuance. Maturities of the bonds ranging from January 1, 2018 through January 1, 2031 were sold bearing interest rates ranging from 3.50% to 5.25%. The bonds were sold at yields which produced a net Original Issue Premium of \$9,648,275. The bonds are subject to optional redemption on or after January 1, 2020 at a redemption price of 100% of the principal amount plus accrued interest. In connection with the refunding, the Tollway terminated a variable-to-fixed interest rate exchange (swap) agreement with Depfa Bank plc. The swap agreement was in a notional amount of \$287,325,000 and was terminated in its entirety on June 10, 2010. The Tollway made a termination payment of \$10,331,527 from Tollway funds on hand in connection with the termination of the swap agreement.

#### (u) Defeased Bonds

On February 7, 2008, the Tollway issued \$766.2 million of Variable Rate Senior Refunding Bonds (2008 Series A-1 and A-2) to advance refund \$708.3 million of the 2006A (\$208.3 million of A-1 and \$500 million of A-2) Senior Priority Revenue Bonds with an interest rate of 5.0%. The net proceeds of \$758.6 million (after payment of \$7.6 million in underwriting fees, insurance and other issuance costs) plus an additional \$8.8 million of 2006A Trustee-held monies were used to purchase U.S. government securities. Those securities were deposited into an irrevocable trust with an escrow agent to provide for all future debt service payments on the refunded portion of 2006A Senior Priority Revenue Bonds is considered to be defeased and the liability for those bonds was removed from the Balance Sheet in 2008.

As of December 31, 2011 the principal amount of Tollway defeased bonds outstanding is \$708.3 million.

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## (v) All Series

Details of outstanding revenue bonds as of December 31, 2011, are as follows:

Issue of 1992 Series A, 6.30%, due on various dates through		
January 1, 2012	\$	51,870,000
Issue of 1998 Series A, 5.00% to 5.50%, due on various	*	,-,-,
dates through January 1, 2016		191,935,000
Issue of 1998 Series B, variable rates, due on various dates		
through January 1, 2017		123,100,000
Issue of 2005 Series A, 4.125% to 5.00%, due on various		
dates through January 1, 2023		770,000,000
Issue of 2006 Series A-1, 5.00%, due on various dates through		
January 1, 2025		291,660,000
Issue of 2007 Series A-1, variable rates, due on various dates		
through July 1, 2030		350,000,000
Issue of 2007 Series A-2, variable rates, due on various dates		250 000 000
through July 1, 2030		350,000,000
Issue of 2008 Series A-1, variable rates, due on various dates		202 100 000
through January 1, 2031		383,100,000
Issue of 2008 Series A-2, variable rates, due on various dates		95,800,000
through January 1, 2031 Issue of 2008 Series B, 5.50%, due on various dates		93,800,000
through January 1, 2033		350,000,000
Issue of 2009 Series A, 5.293% to 6.184%, due on various		330,000,000
dates through January 1, 2034		500,000,000
Issue of 2009 Series B, 5.851%, due on various dates		300,000,000
through December 1, 2034		280,000,000
Issue of 2010 Series A-1, 3.50%, to 5.25% due on various dates		200,000,000
through January 1, 2031		279,300,000
Totals		4,016,765,000
Less current maturities		(176,140,000)
Less unamortized deferred amount on refunding		(53,893,595)
Plus unamortized bond premium		53,485,968
Total long-term portion	e.	3,840,217,373
rotal folig-torm portion	Φ	2,070,217,272

Accrued interest payable for the year ended December 31, 2011, was \$84,247,303.

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The annual requirements to retire the principal and interest amount for all bonds outstanding at December 31, 2011, are as follows:

Year ended			Total debt
December 31,	Principal	Interest	service
2012	\$ 53,040,000	195,249,343	248,289,343
2013	56,365,000	191,950,985	248,315,985
2014	92,855,000	187,973,493	280,828,493
2015	97,795,000	182,901,743	280,696,743
2016	102,910,000	177,921,276	280,831,276
2017	107,850,000	172,952,072	280,802,072
2018	111,315,000	167,735,342	279,050,342
2019	137,785,000	161,521,928	299,306,928
2020	144,640,000	154,936,177	299,576,177
2021	150,695,000	147,910,700	298,605,700
2022	157,980,000	140,239,276	298,219,276
2023	165,615,000	132,153,899	297,768,899
2024	223,660,000	123,726,708	347,386,708
2025	198,605,000	113,557,786	312,162,786
2026	181,350,000	105,852,728	287,202,728
2027	246,565,000	97,873,162	344,438,162
2028	206,045,000	89,094,937	295,139,937
2029	215,850,000	80,346,158	296,196,158
2030	225,550,000	71,189,600	296,739,600
2031	110,295,000	61,617,710	171,912,710
2032	237,545,000	53,606,386	291,151,386
2033	249,790,000	39,734,988	289,524,988
2034	542,665,000	24,504,402	567,169,402
Total	\$ 4,016,765,000	2,874,550,799	6,891,315,799

The table above was prepared assuming the Tollway will renew the standby bond purchase agreement for the 1998B variable rate bonds prior to its expiration on December 28, 2012. In the event the Tollway is unable to renew or replace this agreement, the bonds will be subject to a mandatory tender and repayment in accordance with the terms described in footnote 8(b). The outstanding principal of \$123,100,000 has been classified as a current liability on the balance sheet.

## (w) Capitalized Interest

In 2011 the Tollway's total interest accrued for revenue bonds equaled \$196.9 million, of which \$3.1 million was capitalized in respect of construction in progress.

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#### (x) Trust Indenture Agreement

On March 31, 1999, the Tollway executed an Amended and Restated Trust Indenture with the Trustee acting as fiduciary for bondholders. The Indenture establishes the conditions under which the Tollway may issue bonds and the security to be pledged to bondholders. The Indenture establishes two funds: (i) a Construction Fund to account for the spending of Tollway bond proceeds; and (ii) a Revenue Fund to account for the deposit of Tollway revenues. The Construction Fund is divided into different Project Accounts – one for each bond issue that finances new project(s). The Revenue Fund is divided into six different Accounts (some of which are further divided into Sub-Accounts) which establish an order of funding priority through which Tollway revenues flow. Revenues first fund the Operation and Maintenance Account, which is the only Account in the Revenue Fund in which bondholders do not have a security interest. Remaining revenues fund the other Accounts of the Revenue Fund in the following order of priority: the Debt Service Account, the Debt Reserve Account, the Renewal and Replacement Account, the Improvement Account, and the System Reserve Account. (the Indenture also allows for the creation of Junior Lien Bond Accounts; to date the Tollway has never issued Junior Lien Bonds.)

All Accounts of the Construction Fund and the Debt Service Account and Debt Reserve Account of the Revenue Fund are held by the Trustee. The classification of Trustee-held funds in these financial statements is detailed in note 11.

#### (y) Arbitrage Rebate

In the 1980's, Congress determined that arbitrage rebate rules were needed to curb issuance of investment motivated tax-exempt bonds. These rules were designed to create additional safeguards against issuers obtaining an arbitrage benefit by issuing bonds either prematurely or in excess of actual need in order to benefit from an expected spread between tax-exempt borrowing cost and return on investment of bond proceeds. As a result, under certain conditions gain from arbitrage must be rebated to the United States Government. The Tollway determined that as of December 31, 2011, no arbitrage rebate liability had accrued.

## (9) Derivative Instruments

The fair value balances and notional amounts of derivative instruments outstanding as of December 31, 2011, classified by type, and the changes in fair value of such derivatives instruments for the year then ended as reported in the 2011 financial statements are as follows (amounts in thousands; debit (credit))

	Changes in fair value		December 31, 201	Notional	
Cash flow hedges:	Classification	Amount	Classification	Amount	amount
Pay fixed, receive variable,					
interest rate swaps	Deferred outflow \$	187,843	Derivative instrument liability	\$ (307,308) \$	\$ 1,301,975

As a means of lowering its borrowing costs, the Tollway had entered into ten separate variable-to-fixed interest rate exchange agreements (swaps) in connection with its three variable rate bond issues. Per the terms of the swaps, the Tollway pays a fixed rate of interest to the swap provider in exchange for a variable rate of interest expected to match or closely approximate the variable rate of interest owed by the Tollway

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to bondholders. At the time each of the swaps was entered into by the Tollway, the Tollway's fixed rate obligation in the swap was less than the fixed rate of interest obtainable by the Tollway from issuing fixed rate bonds.

Four of the swaps became effective February 7, 2008, two of which are associated with the 2008 Series A-1 bonds and two of which were associated with the 2008 Series A-2 bonds. One of the swaps associated with the 2008 Series A-2 Bonds was terminated on June 10, 2010 in connection with the Tollway's refunding of a portion of its 2008 Series A-2 Bonds on July 1, 2010. Four of the swaps became effective November 1, 2007, two of which are associated with the 2007 Series A-1 bonds and two of which are associated with the 2007 Series A-2 bonds. Two of the swaps became effective December 30, 1998 and are associated with the 1998 Series B bonds.

Details of these derivative instruments outstanding are as follows (amounts in thousands):

Bond Series		Current notional amount	Effective date	Fixed rate paid	Variable rate received	_	air value of 12/31/11	Swap Termination Date	Counterparty	Estimated counterparty credit ratings
1998B	· s -	67,705	12/30/98	4.3250%	Actual bond rate	\$	(11,751)	1/1/17	Goldman Sachs Mitsui Marine Derivatives Products, L.P.	. Aal/AAA
1998B		55,395	12/30/98	4.3250%	Actual bond rate		(9,615)	1/1/17	JPMorgan Chase Bank, National Association	Aal/A+
2007A-1		175,000	11/1/07	3.9720%	SIFMA		(45,400)	7/1/30	Citibank N.A.	A1/A
2007A-1		175,000	11/1/07	3.9720%	SIFMA		(45,400)	7/1/30	Goldman Sachs Bank USA	Aa3/A-
2007A-2		262,500	11/1/07	3.9925%	SIFMA		(68,860)	7/1/30	Bank of America, N.A.	A2/A
2007A-2		87,500	11/1/07	3.9925%	SIFMA		(22,953)	7/1/30	Wells Fargo Bank, N.A.	Aa3/AA-
2008A-1		191,550	2/7/08	3.7740%	SIFMA		(41,396)	1/1/31	The Bank of New York Mellon, N.A.	Aa1/AA-
2008A-1		191,550	2/7/08	3.7740%	SIFMA		(41,375)	1/1/31	Deutsche Bank AG, New York Branch	Aa3/A+
2008A-2		95,775	2/7/08	3.7640%	SIFMA		(20,558)	1/1/31	Bank of America, N.A.	A2/A
Totals	\$	1,301,975				\$	(307,308)			

The swap counterparty ratings included in the chart are from Moody's Investors Service and Standard & Poor's Corporation, respectively.

The notional amounts of the swaps match the outstanding principal amounts of the associated bonds, with the exception that the swap associated with the Tollway's \$95,800,000 outstanding 2008 Series A-2 bonds is in a notional amount of \$95,775,000. The amortizations of the 2008 Series A-2 Bonds and the related swap result in the bond amount outstanding always exceeding the swap notional amount outstanding, with the difference between the two never exceeding \$25,000.

Interest rate swaps are not normally valued through exchange-type markets with easily accessible quotation systems and procedures. The fair market values of the swaps were calculated using the zero coupon method as described in GASB 53.

#### Risks

#### (a) Credit Risk

Counterparty credit risk is the risk that a swap is terminated and the counterparty fails to make one or more required payments. The termination payment is a market-based payment approximating the value of the swap at the time of termination. The Tollway was not exposed to termination payment

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credit risk as of December 31, 2011 because the negative market values of each swap would render no payments owing by the counterparties in the event of a termination. If changes in interest rates were to create positive market values for the swaps in the future, the Tollway would be exposed to counterparty credit risk in the amount of those positive fair values. The swaps require full collateralization from the counterparty of any positive fair value of the swaps in the event the counterparty's credit rating falls below a Standard & Poor's rating of A- or a Moody's Investor Services' rating of A3. The swaps require full collateralization from the counterparty of positive market value of the swaps in the event the counterparty's credit rating falls below a Standard & Poor's rating of AA- or a Moody's Investor Services' rating of Aa3 and the amount of the positive market value exceeds certain thresholds as specified in the swap agreements. The swaps require such collateral to be held by a third party custodian in the form of cash, debt obligations issued by the U.S. Treasury or debt issued by federally sponsored agencies. The nine swaps outstanding as of December 31, 2011 are with eight different counterparties from seven different financial firms. The financial firm with the largest notional amount holds 28% of the total notional amount of the outstanding swaps.

#### Basis Risk **(b)**

Basis risk is the extent to which the Tollway's variable rate interest payments to bondholders differs from the variable rate payments received from the swap counterparties. The Tollway's variable rate interest payments to bondholders are determined by rates established by remarketing agents on a weekly basis. In the case of the 1998 Series B swaps, the variable rate interest payments received from the swap counterparties are equal to the variable rate interest payments owed to bondholders, which renders this swap to be currently without basis risk. Under certain circumstances as specified in the 1998 Series B swap agreements and upon notice from the swap counterparties, the variable rate payments received from swap counterparties may change from a basis of the actual bond interest rate to the SIFMA 7-day Municipal Swap Index plus eight basis points. During 2011, the average interest rate paid to 1998 Series B bondholders was 0.29%, compared to a SIFMA 7-day Municipal Swap Index of 0.18%. In the case of the 2007 Series A-1 and Series A-2 swaps, the variable rate payments received from the swap counterparties is equal to the SIFMA 7-day Municipal Swap Index, so basis risk is incurred to the extent the rates set by remarketing agents on the Tollway's 2007 Series A-1 and A-2 bonds exceed the SIFMA 7-day Municipal Swap Index. During 2011, the average interest rate paid to Series 2007A bondholders was 0.18%, compared to a SIFMA 7-day Municipal Swap Index of 0.18%. In the case of the 2008 Series A-1 and Series A-2 swaps, the variable rate payments received from the swap counterparties are equal to the SIFMA 7-day Municipal Swap Index, so basis risk is incurred to the extent the rates set by remarketing agents on the Tollway's 2008 Series A-1 and A-2 bonds exceed the SIFMA 7-day Municipal Swap Index. During 2011, the average interest rate paid to Series 2008A bondholders was 0.20%, compared to a SIFMA 7-day Municipal Swap Index of 0.18%.

Low interest rates contributed to the negative December 31, 2011 market valuations (fair values) included in the preceding chart for the Tollway's swaps. At the time of the swaps, the synthetic fixed rates achieved by the swaps were less than the fixed rates that could have been achieved by issuing fixed rate bonds.

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Notes to the Financial Statements

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## (c) Termination Risk

The Tollway's swap agreements do not contain any out-of-the-ordinary termination provisions that would expose it to significant termination risk. Consistent with agreements of this type, the Tollway and the counterparty each have the ability to terminate a swap agreement if the other party fails to perform under the terms of the agreement. The agreements allow either party to terminate in the event of a significant loss of creditworthiness by the other party. If a swap were to be terminated, the associated variable rate bonds would no longer be hedged and the Tollway would be subject to variable rate risk, unless it entered into a new hedge following termination. In addition, if the swap were to have a negative market value at the time of termination, the Tollway would be liable to the counterparty for a payment approximately equal to the market value of the swap.

#### (d) Rollover Risk

There is no rollover risk, given that the swap agreements have final maturities and amortizations that approximately match the final maturities and amortizations of the related bond issues.

## **Derivative Instrument Payments and Hedged Debt**

As of December 31, 2011, aggregate projected debt service requirements of the Tollway's hedged debt and net receipts/payments on associated hedging derivative instruments are presented below. The projected amounts assume that the interest rates on variable-rate debt and reference rates on associated hedging derivative instruments as of December 31, 2011 will remain the same for their terms. As these rates vary, interest payments on variable-rate bonds and net receipts/payments on the associated hedging derivative instruments will vary. The hedging derivative instruments column reflects only the net receipts/payments on derivative instruments that qualify for hedge accounting. All of the Tollway's derivative instruments as of December 31, 2011 qualified for hedge accounting.

Fiscal year ending		Hedge	d debt	Hedging derivative instruments –	
December 31,		Principal	Interest	net payments	Total
2012	\$	<del></del>	1,410,768	49,837,915	51,248,683
2013			1,410,768	49,837,915	51,248,683
2014			1,410,768	49,837,915	51,248,683
2015		_	1,410,768	49,837,915	51,248,683
2016		53,900,000	1,302,968	47,614,540	102,817,508
2017 - 2021		79,450,000	5,793,358	222,882,200	308,125,558
2022 - 2026		349,125,000	5,230,775	202,019,107	556,374,882
2027 - 2031	_	819,500,000	1,603,662	62,052,842	883,156,504
	\$_	1,301,975,000	19,573,835	733,920,349	2,055,469,184

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## (10) Deferred Revenue

During 2002, the Tollway, as lessor, entered into two 25-year capital lease agreements for the refurbishing and operation of the oasis system. Rental payments earned have been recorded as concession revenue. In 2011, the Tollway reviewed these leases and determined that they should be recorded as operating leases. This caused removal of assets and offsetting liabilities for leases previously deemed capital leases. This removal is illustrated in the table below. There was no effect to the Statement of Revenues, Expenses and Changes in Net Assets.

In the year 2000, the Tollway upgraded its communications network with the addition of a fiber optic system. Excess capacity on the fiber optic lines was leased to other organizations in order to offset the cost of the system. In 1999 and 2000, the Tollway entered into eight twenty-year fiber optic system lease agreements and at those times collected \$26,086,389 in total upfront payments; the related revenue was deferred and has been and is being amortized over the lease terms. From 2002 through 2011 the Tollway entered into additional fiber optic leases in the total amount of \$6,439,816. As before monies were collected at the beginning of each lease. These leases are being accounted for in the same manner.

The total deferred revenue balance for the fiber optic system was \$32,526,205 at December 31, 2011, and accumulated amortization of deferred revenue was \$16,111,853 as of December 31, 2011.

A summary of changes in deferred revenue for the year ended December 31, 2011, is as follows:

		Balance at January 1	Current year activity	Balance at December 31
Deferred revenue:				
Fiber optics Accumulated amortization	\$	29,995,988 (14,502,684)	2,530,217 (1,609,169)	32,526,205 (16,111,853)
	_	15,493,304	921,048	16,414,352
Lease receivable Accumulated amortization	_	42,394,250 (13,949,500)	(42,394,250) 13,949,500	
Totals	_	28,444,750	(28,444,750)	
Deferred revenue Accumulated amortization	_	72,390,238 (28,452,184)	(39,864,033) 12,340,331	32,526,205 (16,111,853)
Net deferred revenue	\$	43,938,054	(27,523,702)	16,414,352

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## (11) Restricted Net Assets

As of December 31, 2011, the Tollway reported the following restricted net assets:

Description	 December 31, 2011
Revenue bond trust indenture agreement restrictions Portion classified as invested in capital	\$ 242,817,893
assets net of related debt	53,040,000
Net assets restricted under trust indenture	205.055.002
agreement	295,857,893
Restricted for pension benefit obligations	69,473
Total	\$ 295,927,366

## (12) Contributions to State Employees' Retirement System

Plan Description: Substantially all of the Tollway's full-time employees, as well as the State Police assigned to the Tollway who are not eligible for any other state-sponsored retirement plan, participate in the State Employees' Retirement System (SERS), which is a component unit of the State of Illinois reporting entity. SERS is a single-employer defined benefit public employee retirement system (PERS) in which state employees participate, except those covered by the State Universities, Teachers, General Assembly and Judges' Retirement Systems. SERS issues a separate comprehensive annual financial report (CAFR). The financial position and results of operations for SERS for fiscal year 2011 are also included in the state's Comprehensive Annual Financial Report (CAFR) for the year ended June 30, 2011.

A summary of SERS' benefit provisions, changes in benefit provisions, employee eligibility requirements including eligibility for vesting, and the authority under which benefit provisions are established are included as an integral part of the SERS' CAFR. Also included therein is a discussion of employer and employee obligations to contribute and the authority under which those obligations are established.

To obtain a copy of SERS' CAFR, write, call, or email:

State Employees Retirement System 2101 S. Veterans Parkway Springfield, IL. 62794-9255 (217) 785-2340 sers@mail.state.il.us

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December 31, 2011

Funding Policy: The contribution requirements of SERS members and the State are established by State statute and may be amended by action of the General Assembly and the Governor. Tollway employees covered by SERS contribute between 4.0% and 8.5% of their annual covered payroll. The State contribution rates for the State's fiscal years ended June 30, 2011 and 2010 were determined according to the statutory schedule.

Tollway contribution rates to SERS for the Tollway's SERS covered employees for the State fiscal years ended June 30, 2012, 2011 and 2010 were 34.190%, 30.253%, (revised on January 1, 2011 to 27.988% retroactive to July 1, 2010) and 28.377% respectively. Tollway contributions for the calendar years ended December 31, 2011, 2010 and 2009 were \$32,790,627, \$30,279,821 and \$33,618,063, respectively. The retroactive contribution rate adjustment did result in approximately a \$1.2 million reduction of Tollway contributions.

In addition to contributions to this retirement plan, effective July 1, 1990, the Tollway adopted, under the provisions of the Tollway Act (605 ILCS 10/1 et. seq.), a noncontributory defined-benefit pension plan which covered employees who were members of SERS and who were not members of any collective bargaining unit. The plan was intended to meet the requirements of a tax-qualified plan under Section 401(a) of the Internal Revenue Code. The plan provided benefits based upon years of service and employee compensation levels. The Tollway's policy was to make contributions consistent with sound actuarial practice. Annual cost was determined using the projected unit credit actuarial method. The Tollway suspended the plan's benefits as of September 15, 1994, and terminated the plan effective December 31, 1994. As of December 31, 2011 the net assets available for these benefits were \$287,770, (valued at the lesser of market value or actuarial value) and the pension benefit obligation was recorded as \$218,297. As of December 31, 2011, 7 beneficiaries remained in the plan.

Other Post Employment Benefits (OPEB): Under provisions of SERS, the State of Illinois provides certain health, dental, and life insurance benefits to annuitants who are former Tollway employees. Substantially all Tollway employees may become eligible for post-employment benefits if they eventually become annuitants. Currently, 921 retirees meet the eligibility requirements. Life insurance benefits are limited to \$5,000 per annuitant age 60 or older. For the year ended December 31, 2011, the Tollway contributed \$4,317,857 towards the state's current cost of benefits.

The actuarially determined annual OPEB cost for providing these benefits and the related OPEB obligations are recorded in the financial statements of the state agencies responsible for paying these benefits. The Department of Healthcare and Family Services (HFS) administers the Health Insurance Reserve Fund (for payment of health benefits), and the Department of Central Management Services (CMS) administers the Group Life Insurance Funds (for payment of life insurance benefits).

A summary of OPEB benefit provisions, changes in benefit provisions, and the authority under which benefit provisions are established are included as an integral part of the state's CAFR. Also included therein is a discussion of employer and employee obligations to contribute and the authority under which those obligations are established.

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#### (13) Risk Management

The Tollway has self-insured risk retention programs for workers' compensation claims. The Tollway's exposure under this program is limited to self-insured retentions per workers' compensation incident. Claims liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated. The estimated liabilities for asserted workers' compensation claims of \$12,931,689 and both asserted and unasserted employee health claims of \$445,790 are included in the accompanying financial statements. Amounts are reported as current because the Tollway generally pays the self-insured retention portion in the subsequent fiscal year.

Year	 Estimated laims payable January 1	Current claims	Claims payments	Estimated claims payable December 31
2011	\$ 15,065,704	3,571,763	5,259,988	13,377,479
2010	16,022,848	6,064,517	7,021,661	15,065,704

Additionally, the Tollway purchases commercial insurance policies for general liability insurance and vehicle liability insurance which have a level of retention of \$250,000 per occurrence. Property insurance coverage for damages to capital assets other than vehicles includes retention of \$1,000,000 per occurrence. The Tollway has not had significant reductions in insurance coverage during the current or prior year nor did settlements exceed insurance coverage in any of the last three years.

#### (14) Compensated Absences

The liability reported in the Balance Sheet represents the vacation and 50% of unused sick time for the period beginning January 1, 1984, and ending December 31,1997, accrued by the employees, and is payable upon termination or death of the employee. The payment provided shall not be allowed if the purpose of the separation from employment and any subsequent re-employment is for the purpose of obtaining such payment. The Tollway's liability for unused annual vacation leave and sick leave as defined above is recorded in the accompanying financial statements at the employee's pay rate.

Amounts accrued as compensated absences payable at December 31, 2011 are as follows:

Balance at		Try 1	Balance at	Due within
 January 1	Accrued	Used	December 31	one year
\$ 9,682,966	5,042,837	4,745,254	9,980,549	4,690,858

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#### (15) Pledges of Future Revenues

All revenue bonds issued under the Tollway's Trust Indenture are secured by a pledge of and lien on Tollway revenues and certain other funds (excluding amounts reserved for the payment of maintenance and operating expenses) as provided in the Trust Indenture.

Bond issue	Purpose	_	Future pledged revenues	Term of commitment
1992 Series A Priority Revenue Bonds 1998 Series A Priority Refunding Revenue Bonds	Fund Construction for Tri-State Tollway Widening Project Refund Outstanding Bonds	\$	53,503,905 219,886,788	2012 2016
(Fixed Rate) 1998 Series B Priority Refunding Revenue Bonds (Variable Rate)	Refund Outstanding Bonds		150,051,238	2017
2005 Series A Senior Priority Revenue Bonds	Fund Congestion Relief Program		1,077,631,836	2023
2006 Series A-1 Senior Priority Revenue Bonds	Fund Congestion Relief Program		454,280,500	2025
2007 Series A-1 & A-2 Variable Rate Senior Priority Revenue Bonds	Fund Congestion Relief Program		1,159,335,274	2030
2008 Series A-1 & A-2 Variable Rate Senior Refunding Revenue Bonds	Refund Outstanding Bonds		764,355,401	2031
2008 Series B Senior Priority Revenue Bonds	Fund Congestion Relief Program		754,507,675	2033
2009 Series A Senior Priority Revenue Bonds (Build America Bonds – Direct Payment)	Fund Congestion Relief Program		1,095,429,910	2034
2009 Series B Senior Priority Revenue Bonds (Build America Bonds – Direct Payment)	Fund Congestion Relief Program		656,804,400	2034
2010 Series A-1 Senior Priority Refunding Revenue Bonds	Refund Outstanding Bonds		505,528,872	2031
		\$	6,891,315,799	

Proceeds from the bonds identified above provided financing for the construction and/or improvement of the various toll highway systems in Illinois. Annual principal and interest payments on the bonds are expected to require approximately 25 percent of the currently projected pledged net revenues (based on approved future rate scheduled for passenger and commercial vehicles). The total principal and interest remaining to be paid on the bonds is \$6.9 billion. Principal and interest paid in the current year and total pledged net revenues were \$248.4 million and \$451.4 million, respectively. Annual principal and interest

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December 31, 2011

payments for synthetic fixed rate bonds (1998 Series B, 2007 Series A and 2008 Series A) are estimated based on rates applicable on December 31, 2011.

#### (16) Commitments

At December 31, 2011, there remain open for capital projects contracts totaling \$84 million. The Tollway plans to fund remaining payments under these contracts through revenues and accumulated cash.

#### (17) Pending Litigation

There are lawsuits pending against the Tollway claiming, among other things, damages for wrongful discharge, personal injuries and from the operation of the Tollway's evasion recovery Workers' compensation lawsuits are also pending. The Tollway's exposure is limited to the self-insured retention of \$250,000 per general liability incident.

Management, after taking into consideration legal counsel's evaluation of such actions, is of the opinion that the outcome of these matters will have no material adverse effect on the financial position of the Tollway.

#### (18) Contingent Liabilities

A contingent liability is defined as a liability that is not sufficiently predictable to permit recording in the accounts but in which there is a reasonable possibility of an outcome which might affect financial position or results of operations. It is the opinion of management that the Tollway has no contingent liabilities as of December 31, 2011.

#### (19) New Governmental Accounting Standards

The Governmental Accounting Standards Board (GASB) has issued the following statements:

Statement No. 57 - *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans* (provisions related to the frequency and timing of measurements). The provisions of this Statement related to the frequency and timing of measurements are effective for actuarial valuations first used to report funded status information in OPEB plan financial statements for periods beginning after June 15, 2011.

Statement No. 60 – Accounting and Financial Reporting for Service Concession Arrangements. The objective of this Statement is to improve financial reporting by addressing issues related to service concession arrangements (SCAs), which are a type of public-private or public-public partnership. As used in this Statement, an SCA is an arrangement between a transferor (a government) and an operator (governmental or nongovernmental entity) in which (1) the transferor conveys to an operator the right and related obligation to provide services through the use of infrastructure or another public asset (a facility) in exchange for significant consideration and (2) the operator collects and is compensated by fees from third parties. The Tollway is required to implement the provisions of this Statement for the year ending December 31, 2012.

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Statement No. 61 – The Financial Reporting Entity: Omnibus – an amendment of GASB Statements No. 14 and No. 34. This Statement modifies certain requirements for inclusion of component units in the financial reporting entity. This Statement also amends the criteria for reporting component units as if they were part of the primary government (that is, blending) in certain circumstances. This Statement also clarifies the reporting of equity interests in legally separate organizations. The Tollway is required to implement the provisions of this Statement for the year ending December 31, 2013.

Statement No. 62 – Codification of Accounting and Financial Reporting Guidance contained in pre-November 1989 FASB and AICPA Pronouncements, was established to incorporate into the GASB's authoritative literature certain accounting and financial reporting guidance that is included in certain FASB and AICPA pronouncements issued on or before November 30, 1989, which does not conflict with or contradict GASB pronouncements. The Tollway is required to implement the provisions of this Statement for the year ending December 31, 2012.

Management has not yet determined what impact these Statements will have on the financial position and results of operations of the Tollway.

#### (20) Related Parties

The Tollway has entered into various intergovernmental agreements with the State of Illinois, through the Illinois Department of Transportation (IDOT). Intergovernmental receivables of approximately \$111 million are recorded at December 31, representing construction projects performed by the Tollway that pertain to the infrastructure owned by IDOT. Accrued liabilities totaling approximately \$60 million are recorded for amounts owed to IDOT for construction projects IDOT has performed for infrastructure assets owned by the Tollway.

#### (21) Subsequent Events

Effective January 1, 2012 a toll rate increase for passenger vehicles took effect. The rate increase was approved by the Tollway board of directors in 2011.

Also on January 1, 2012 the Tollway established a department of Diversity and Strategic Development.



# APPENDIX B

# CONSULTING ENGINEER'S REPORT





AECOM 303 East Wacker Drive Suite 1400 Chicago, IL 60601 www.aecom.com 312 373 7700 tel 312 373 6800 fax

April 5, 2013

Illinois State Toll Highway Authority 2700 Ogden Avenue Downers Grove, IL 60515

Attention: Ms. Kristi Lafleur

**Executive Director** 

Subject: Consulting Engineer's Report

Dear Ms. Lafleur,

AECOM Technical Services, Inc. is pleased to submit this report as the Consulting Engineer in anticipation of the marketing of The Illinois State Toll Highway Authority's Series 2013A Bonds supporting the Move Illinois Program.

This report provides a summary of the condition of the existing Tollway system and identifies the projects to be undertaken to rebuild, modernize and expand the 54-year old, 286 mile system. This report also provides estimates of operating expenses, renewal and replacement deposits, and construction costs and schedules.

The report reflects the scope, cost and schedule of completion of the sub-projects that make up the Move Illinois Program and the Congestion-Relief Program, as developed by the Authority's Program Management Office (the "PMO"), which costs vary in detail based upon the stage of implementation of each sub-project as more fully described therein.

The Consulting Engineer has reviewed the forecasts provided by the PMO and believes that forecasted costs are appropriate for the types of projects described and that the overall cost of the program at \$12.15 billion appears reasonable. In addition, costs to complete the remaining portions of the CRP are identified, which depicts the ongoing success the Tollway has had delivering significant capital projects.

Utilizing information provided by Tollway Finance Department staff and project scopes and schedules from the PMO, we have developed estimates of Operating Expenses. Renewal and Replacement Deposit recommendations were developed based upon the types of projects included in the Congestion-Relief Program and other needs of the Tollway.

We wish to acknowledge the cooperation and assistance provided to us by the Tollway staff in the preparation of this report. We appreciate the opportunity to be of service to the Tollway.

Sincerely,

Denise M. Casalino, P.E. Senior Vice President



# **Consulting Engineer's Report**

Prepared by:



# **CONSULTING ENGINEER'S REPORT**

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## 1.0 History and Status

The Illinois State Toll Highway Authority is a user-financed administrative agency of the State of Illinois whose purpose is to operate, maintain and service a system of toll roads located in northern Illinois. The Illinois State Toll Highway Authority began in 1953 as the Illinois State Toll Highway Commission, created by an act of the Illinois State legislature. The Illinois State Toll Highway Commission was directed by the legislature to construct the original 187 miles of the Tollway system that included the Tri-State, Northwest (now the Jane Addams Memorial) and East-West (now the Ronald Reagan Memorial) Tollways. These routes opened to traffic in 1958. On April 1, 1968 the Illinois State Toll Highway Commission became the Illinois State Toll Highway Authority, (hereafter referred to as the Tollway).

The Tollway has been an important component of the transportation network in northern Illinois. When it opened in 1958, it was envisioned as a high-speed bypass around the urban core of Chicago. However, over the last four decades, the Tollway system has evolved to not only continue this function, but to also serve both commercial and commuter-oriented traffic within the Chicago metropolitan region. Expansion of the system through the construction of extensions and new routes was initiated to keep pace with overall traffic growth in the region. Improvements have been made in coordination with and in response to transportation planning efforts at both the regional and state levels.

The Tollway has grown over the last four decades as a result of Legislative directives:

- In 1970, the Governor approved the construction of the Ronald Reagan Memorial Extension (originally called the East-West Extension), between IL Route 56 west of Aurora and US Route 30 near Sterling Rock Falls, which added an additional 69.5 miles to the system. This extension was included in the original authorization for the Tollway system but was not included in the original construction. This route was opened to traffic in 1974.
- In 1984, the Illinois State legislature directed the Illinois State Toll Highway Authority to construct the Veterans Memorial Tollway (originally called the North-South Tollway), which added an additional 17.5 miles to the system. This route opened to traffic in 1989.
- In July 1993, the Illinois General Assembly authorized the Tollway to construct the South Extension of the Veterans Memorial Tollway from I-55 to I-57 (the portion from I-55 to I-80 opened to traffic in November 2007), the North Extension of the North-South Tollway from Lake-Cook Road to IL-120 in Grayslake and east to I-94, and the Richmond Extension from IL-120 in Grayslake to the Illinois-Wisconsin border near Richmond, Illinois. In 1995, the Tollway was further authorized to construct the Elgin-O'Hare Extension and the Western O'Hare Bypass. Studies by the Illinois Department of Transportation have been completed for the Elgin-O'Hare Extension and the Western O'Hare Bypass. The projects are now collectively known as the "Elgin O'Hare Western Access" (EOWA) project and are identified within the Move Illinois program described below. In addition, Move Illinois includes studies for North Extension of the North-South Tollway.

Effective March 31, 1999, the "Amended and Restated Trust Indenture" (the "Indenture") renamed the Capital Improvement Program as the Improvement Program (I) and the Major Improvement Program as the Renewal and Replacement Program (RR). Improvement



projects are those that add to or improve the existing Tollway infrastructure while Renewal and Replacement projects are those that maintain, repair or improve the existing infrastructure. Funding for these programs is provided entirely through user fees (i.e., tolls), concession revenues, interest earnings, and revenue bonds.

There are currently 286 miles of mainline roadway consisting of 1,665.0 mainline lane miles, 76.4 auxiliary lane miles, 245.9 ramp lane miles, 59.1 plaza cash lane miles, 105 interchanges, and 642 bridges.

In mid-2004, the Tollway unveiled a 10-Year Congestion-Relief Plan that addressed the condition of the existing infrastructure, congestion relief, the need of growing communities, and enhancement of local economies. As part of the long-range planning process, a comprehensive re-evaluation of the entire system and an extensive review of the condition of the Tollway's then 274-miles of roadways and structures were completed. Tollway staff met with various community leader groups to develop concepts and to validate ideas of the proposed 10-year program. The Congestion-Relief Plan was approved by the Tollway Board at the September 2004 Board meeting. Upon board approval, it became known as the Congestion-Relief Program (CRP).

The Tollway reassessed the CRP during the spring of 2007. A number of projects were reevaluated and were modified or enhanced due to the condition of the roadway and overpass bridges or to accommodate input from municipalities. Also, due to increased material and overall construction costs during the 2005 and 2006 construction seasons, the estimates for projects in design were adjusted. Finally, several significant additions were made to the CRP to address portions of the system and to provide access improvements to the Tollway. Based upon these CRP changes, the overall budget for the CRP was increased by approximately \$1.0 Billion and the schedule was lengthened by two years. The revised Congestion-Relief Program was approved by the Tollway Board at the September 7, 2007 Board meeting. Since that time, costs and schedules for projects have been modified based upon market dynamics. Information detailing the completion of CRP projects is included in a later section. The completion of projects remaining under the CRP program is expected to be paid for entirely with revenue funds.

In November 2008, the Tollway Board of Directors approved an additional \$1.8 billion capital program entitled Congestion-Relief Program Phase II — Tomorrow's Transportation Today ("TTT"). The program contained two major components: Green Lanes and Interchange Improvements. The goal of Green Lanes was to promote ride-sharing and transit options. Interchange improvements considered were (i) a new interchange at the crossing of the Tri-State (I-294) and I-57, (ii) an upgrade of the Jane Addams Memorial Tollway (I-90) interchange with I-290 and IL-53 and (iii) adding new or expanded arterial interchanges in conformance with the Tollway Cost Share Policy. The \$1.8 billion plan was intended to be financed by bonds backed by toll revenues including a toll increase for commercial vehicles to become effective in 2015 and variable toll rates to be established for single-occupant passenger vehicles using the Green Lanes. At this time, the TTT program has been terminated with no expenditure of funds or project progress.

On August 25, 2011, the Tollway Board of Directors approved a \$12.1 billion long range plan for the Tollway System known as "Move Illinois: The Illinois Tollway Driving the Future" (as approved, the "Move Illinois Program"). The key goals of the Move Illinois Program (MI) are to:

- Save drivers time and money
- Drive the economic engine



- Build a 21st century transportation system
- Take care of the existing system
- Be the "cleanest and greenest" program in history

The program includes two elements – maintaining the existing Tollway system and enhancing regional mobility with new priority projects. The program and the projects that make up the program are described in detail in later sections of this report.

## 2.0 Condition of the Existing Tollway System

The Tollway continues to function as an essential component of the transportation network in northern Illinois. As part of the CRP to date, approximately 45% of the system mainline pavement has been constructed, reconstructed, or reconstructed and widened, approximately 15% of the system mainline pavement has been rehabilitated, Open Road Tolling (ORT) has been implemented at all 22 mainline toll plazas systemwide, and the Veterans Memorial Tollway (I-355) South Extension to I-80 has been completed. An additional 39% of the system mainline pavement is programmed for rehabilitation as part of the remaining CRP between 2012 and 2016.

Though significant progress has been made with regard to the Tollway infrastructure, there are still many challenges that remain. Although the original system continues to be maintained at high levels, some infrastructure elements are reaching the end of predictable usefulness due to the effects of age and increasing traffic volumes. The remaining original mainline pavement has had three to four cycles of pavement rehabilitations and/or asphalt overlays. Pavement rehabilitations typically include repair of the concrete base and the placement or replacement of a bituminous overlay. These types of pavement rehabilitations typically extend the remaining service life of the pavement by six to eight years. Many of the original bridge decks have had bituminous overlays (now removed), concrete overlays (existing) and have been widened to respond to the increasing traffic demand.

The geometry of the existing roadway system generally meets or exceeds Federal highway design criteria.

A majority of the system mainline pavement (approximately 32% systemwide), not reconstructed or reconstructed and widened as part of the CRP, is programmed for reconstruction or reconstruction and widening as part of the Move Illinois program between 2012 and 2026. Additionally, sections of pavement rehabilitated as part of the CRP (approximately 21% systemwide) are programmed for rehabilitation required by the pavement preservation program as part of Move Illinois program between 2012 and 2026.

At the conclusion of the current Capital Programs, the Tollway will have:

- Reconstructed approximately 62.6 centerline miles or 22.9% of the mainline pavement systemwide;
- Reconstructed and widened approximately 145.1 centerline miles or 53.2% of the mainline pavement systemwide;
- Rehabilitated approximately 57.9 centerline miles or 21.2% of the mainline pavement systemwide;
- Rehabilitated and widened approximately 5.5 centerline miles or 2.0% of the mainline pavement systemwide;
- Added approximately 29.3 centerline miles or 10.7% of mainline pavement systemwide.

NOTE: The above percentages are based upon the approximately 272.8 centerline miles of mainline pavement existing prior to the CRP and do not include expansion of ramp, auxiliary or plaza pavements.

In addition, it is anticipated that the Tollway will have increased the systemwide lane mileage by approximately 28% at the conclusion of the current Capital Programs. This will be accomplished through various widening projects, construction of route extensions, and the inclusion of the



Elgin O'Hare Western Access.

Inspections are performed annually throughout the entire Tollway System (Annual Inspections) pursuant to requirements of the Amended and Restated Trust Indenture of the Illinois State Toll Highway Authority, effective March 31, 1999 (Trust Indenture). The purpose of these inspections is to evaluate Tollway assets which include but are not limited to pavement, bridges, overhead sign structures, noise abatement and retaining walls, drainage structures, slopes, ditches, safety appurtenances and facilities. Certain Tollway assets including bridges, noise abatement and retaining walls, overhead sign structures, and facilities are inspected on multi-year cycles which are described in further detail later in this report.

At the time of this report, final results of the 2012 Annual Inspection were not yet available. Field data collection for most roadway segments and facilities has been completed, with analysis and condition report development currently underway. The condition of the existing system as described is based on the results of the 2011 Annual Inspections. Early results of the 2012 Annual Inspections indicate that the overall condition of the pavement, bridges, retaining walls, noise abatement walls and overhead sign structures has improved due to the completion of capital program projects through 2011 and the intermittent pavement repair projects on each of the Tollway routes. The overall condition of the Tollway facilities has also improved due to ongoing rehabilitations at the maintenance yard facilities and repairs performed by Tollway Maintenance personnel.

As in previous years, the 2011 Annual Inspection was completed by the Consulting Engineer on the entire 286 miles of the Tollway System. The following sections summarize the 2011 Annual Inspection findings of the Consulting Engineer. The deficiencies noted will be addressed by the Tollway Maintenance Division or as part of the current Capital Programs and in some cases, have already been addressed.

#### 2.1 Pavement

The Tollway roadway pavement is inspected annually. The inspection includes: a structural evaluation, a pavement surface evaluation, and a visual inspection that detail areas for repair to be completed by contract or by the Tollway Division of Maintenance and Traffic (Maintenance Division).

## **Visual Inspection**

Visual inspection of the Tollway roadway pavement was conducted by the Tollway's Consulting Engineer during the spring and summer of 2011. The inspection consists of the recording of visible deficiencies of the mainline and ramp pavements from edge-of-shoulder to edge-of-shoulder including all bridge decks, shoulders, gutter and curb. Prior to the visual inspection, the Inspectors interview each Maintenance Section Manager/Supervisor and document any concerns. Through the results of these interviews and subsequent visual inspections, repair quantities are estimated and prioritized based on the level of severity and repair recommendations are created. These repair quantities and recommendations are utilized to assist the Tollway Maintenance Division in scheduling work activities; to aid the Engineering Division in ensuring that all necessary repairs are included in upcoming construction contracts; and to aid the Planning Division in the determination and creation of future repair programs. An overall condition rating is then assigned for the areas inspected based upon the estimated repair quantities and level of severity. This overall condition rating typically coincides with the CRS rating discussed elsewhere within this report.



# **Structural Evaluation**

The structural evaluation of the Tollway roadway system was performed during the summer and fall of 2011. This evaluation assesses the structural integrity of mainline pavements and assists in identifying deficiencies. The structural evaluation consists of Falling Weight Deflectometer (FWD) testing, pavement coring and FWD data analysis. The FWD testing and data analysis is used to determine pavement layer and subgrade structural parameters, to evaluate load transfer characteristics at pavement joints and to identify subsurface voids. The pavement coring program is utilized to verify pavement layer thickness and to inspect material and bonding conditions.

# **Pavement Surface Evaluations**

The pavement surface evaluation of the Tollway roadway system was performed during the summer and fall of 2011. This evaluation utilizes electronic and visual surveillance of the pavement surface to determine the extent of pavement distress. The Tollway utilizes a pavement inspection and evaluation system similar to that developed by the Illinois Department of Transportation (IDOT) which categorizes pavement conditions using Condition Rating System (CRS) values. This system is a subjective measurement of pavement surface condition based on a 1 to 9 scale; with 9 representing a newly constructed or resurfaced pavement and 1 representing a completely failed pavement. While both the Tollway and IDOT consider a CRS rating of less than 4.5 "poor", IDOT may consider it tolerable on a rural route. On the Tollway system and other higher level facilities, a CRS of 5.5 or less indicates a riding surface that has become uncomfortable and inconsistent with Tollway operations and user expectations. Therefore, a CRS of 5.5 or less on the Tollway system is a candidate for repairs or rehabilitation.

Based on the Tollway's maintenance and repair histories and pavement age, the Consulting Engineer considers pavement with a CRS value between 6.0 and 6.5 as "transitional" likely requiring repairs in the following two to seven years due to the diminishing life span of repeated repair cycles. The CRS ratings utilized for the Tollway pavement surface evaluation are provided in the following table.

Table 1: CRS Rating System

CRS Rating	General Pavement Surface Condition
ONO Nating	Surface Condition
< 4.5	Poor
4.5 – 5.9	Fair
6.0 - 6.5	Transitional
6.6 to 7.4	Good
>7.5	Excellent

It should be noted that while the riding surface may reflect a high CRS rating, the aging pavement substructure, drainage problems, or other unknown conditions that may exist below the pavement surface are unaccounted for by the CRS rating. For example, a section of the recently constructed Veterans Memorial Tollway (I-355) South Extension and one on the recently resurfaced portion of the Jane Addams Memorial Tollway (I-90) would both exhibit a high CRS rating; however, the age and condition of the pavement substructures on these two sections are entirely different.

CRS values are determined by digitally recording surface conditions and measuring certain types of surface distress and rideability of pavements through the collection of electronic sensor data. This data is collected by a semi-automatic survey process which utilizes a survey vehicle outfitted with cameras that capture continuous images of the pavement surface and panoramic images of the roadway. The images and sensor data are processed by trained CRS rating personnel who assign CRS values. A summary of the most recent systemwide CRS ratings is included in the following table:

Table 2: Summary of Pavement Surface CRS Ratings from 2011 Annual Inspection, Lane Miles

Tollway Route	Excellent >7.5	Good 6.6-7.4	Transitional 6.0-6.5	Fair 4.5-5.9	Poor 0-4.4	Not rated **
Tri-State	249.0	29.0	70.8	69.6	0.0	7.6
Edens Spur	172.0	13.5	10.2	11.7	0.0	0.0
Jane Addams Memorial	229.2	4.6	53.1	96.8	0.0	1.6
Ronald Reagan Memorial	187.6	204.8	67.3	7.8	0.0	0.0
Veterans Memorial	157.8	9.7	6.3	3.0	0.0	7.7
Total*	995.5	261.7	207.8	189.0	0.0	16.9
% of Total	59.6%	15.7%	12.4%	11.3%	0.0%	1.0%

<sup>\*</sup> Lane Miles Surveyed does not equal total actual mainline mileage (2064.4) due to approximate beginning and ending points of the field survey, and the exclusion of auxiliary lanes and other lane types.

Note: This evaluation does not include auxiliary or ramp lanes that are required for entering and exiting the Tollway. Due to this, route and system totals, may not match information in other sections of the report. Percentages may not total to 100% due to rounding.

Ramp lanes are evaluated on a three year basis due to the reduced traffic and anticipated improved condition compared to the mainline, though the Tollway may begin to monitor the ramps more closely since the current programs are not expected to address many of the system's ramps. Auxiliary lanes are generally in better condition than the adjacent mainline lanes due to reduced traffic and are generally maintained in conjunction with the mainline lanes.

As previously stated, CRS ratings are a subjective measurement of the pavement surface condition. These ratings are only one indicator of overall pavement condition and if used alone can be misleading. A newly resurfaced roadway will likely be rated "excellent" even though the underlying concrete pavement and base could be largely deteriorated. In such a case the "excellent" rating will very quickly deteriorate to a "transitional" or "poor" rating and the pavement will require additional work in a relatively short period of time. For Tollway sections not reconstructed as part of the CRP that were rated "good" to "excellent" in 2011, rapid deterioration to a transitional or lower rating is expected due to the condition of the underlying concrete base pavement.

Considering this, the Remaining Service Life (RSL) rating system was developed. The RSL takes into account current CRS ratings, traffic volumes, and pavement thickness information. This data is projected to determine how many theoretical years are remaining before a terminal level is reached and major repairs would be required. The RSL categories are developed using

<sup>\*\*</sup> Sections that contained construction and the long bridges such as the Mile Long and Bensenville bridges on I-294 were excluded from the survey and listed as "Not Rated"

specific pavement performance models, historical condition data for a specific pavement type, and assumed rehabilitation treatments. The RSL categories have been found to be a reliable indicator of pavement performance. However, if there is any deviation from the future rehabilitation treatments assumed in developing the performance model, then the model will no longer accurately predict pavement performance, and the RSL may be incorrect.

Historically, the Tollway RSL categories included 0 years, 1-2 years, 3-4 years, 5-8 years, 9-12 years and 13 or more years. In 2010, additional RSL categories of 13-19 years and 20 or more years were created in order to allow for better programming of future rehabilitations. New pavement with an expected life of 30 or more years would typically be categorized with an RSL of 20 or more years. In contrast, pavement categorized with an RSL of 0 years will require extensive intermittent pavement repairs to maintain the pavement integrity.

The Tollway has generally been successful in maintaining consistent pavement conditions through 2011. This has been accomplished through activities performed by the Maintenance Division and programmed major repair work through the Capital Programs. However, this strategy cannot continue indefinitely. While the failed RSL category has improved, the 5 to 8 year RSL category continues to increase. This is indicative of the short-term repairs implemented by the Tollway in the past.

To date, approximately 45% of the system mainline pavement has been constructed, reconstructed, or reconstructed and widened which addresses the concern of failing base pavement on those portions of the system. However, there is still a substantial amount of pavement that has not been reconstructed. In addition to ongoing intermittent repairs systemwide, other short term repairs in these unreconstructed sections include HMA resurfacing on the Jane Addams Memorial Tollway (I-90) completed in 2011, on the Edens Spur (I-94) completed in 2010, on the Ronald Reagan Memorial Tollway (I-88) scheduled for 2012, and on the Tri-State Tollway (I-294) scheduled for 2012. These short-term repairs serve to improve pavement surface conditions and rideability along these routes; however they do not adequately address the deterioration of the underlying concrete base pavement. Based on pavement age and repair histories, reconstruction of these pavements is likely the most cost-effective long term repair strategy. Currently, a majority of the system mainline pavement (approximately 32% systemwide) not recently reconstructed or reconstructed and widened is programmed for reconstruction or reconstruction and widening between 2012 and 2026.

While the Tollway's annual maintenance efforts have focused on protecting the basic integrity of the roadway through projects such as emergency patching and intermittent pavement repairs, the original pavement infrastructure continues to deteriorate due to load-related (vehicle loading) and non-load related (environmental) impacts. In the past, this had resulted in a repair cycle that continued to accelerate until the implementation of CRP where more substantial improvements were initiated. The strategy of maintaining pavement through small-scale maintenance projects is no longer feasible due to increasing construction costs, repair quantities, and reduced pavement life. The current Capital Programs are focusing on rehabilitating or reconstructing the aging infrastructure through the reconstruction of approximately 45% of the system mainline pavement and a commitment to reconstruct or reconstruct and widen an additional 39% of the system mainline pavement thus having reconstructed or reconstructed and widened approximately 84% of the entire mainline system by 2026. Most pavement sections exhibiting advance deterioration are either currently under construction or are programmed for construction by 2016.

The first year of the CRP was 2005, which began to address long-term pavement repairs. As part of this, the underlying concrete base pavement deterioration issues along the Tri-State



Tollway (I-294/I-94) and the Ronald Reagan Memorial Tollway (I-88) have been or are programmed to be addressed. As is shown in the following table, approximately 47% of surveyed pavement systemwide in 2011 was categorized with an RSL of eight years or less. The pavement within these categories will require repairs within the next eight years to maintain pavement integrity. This is a major improvement over the 95% of pavement systemwide which was within these categories in 2004 before the CRP began. A summary of the most recent systemwide RSL values is included in the following table:

Table 3: Summary of Pavement RSL Values from 2011 Annual Inspection, Lane Miles

Tollway Route	20+ Years	13-19 Years	9 - 12 years	5 – 8 years	3 – 4 years	1 – 2 Years*	0 Years*	Not rated ***
Tri-State (I-294)	240.7	7.2	7.2	12.6	20.6	64.4	65.5	7.6
Tri-State and Edens Spur (I-94)	162.3	8.7	9.8	4.8	8.2	2.1	11.7	0.1
Jane Addams Memorial (I-90)	11.5	84.5	4.6	13.7	118.8	53.6	96.8	1.6
Ronald Reagan Memorial (I-88)	101.5	41.4	21.1	57.1	197.3	43.7	5.8	0.0
Veterans Memorial (I-355)	69.5	65.1	26.6	8.5	1.7	2.5	3.0	7.7
Total**	585.5	206.9	69.3	96.7	346.6	166.2	182.8	17.0
% of Total	35.0%	12.4%	4.1%	5.8%	20.7%	9.9%	10.9%	1.0%

<sup>\*</sup> Critical areas in need of attention. (Jane Addams Memorial Tollway (I-90) – programmed for reconstruction and widening in 2013 to 2015, Tri-State Tollway (I-294) – programmed for rehabilitation in 2012 and reconstruction in 2020 to 2022, Ronald Reagan Memorial Tollway (I-88) – programmed for rehabilitation and reconstruction in various years)

Note: This evaluation does not include auxiliary or ramp lanes that are required for entering and exiting the Tollway. Due to the lack of auxiliary lane analysis, route and system totals may not match information in other sections of the report. Percentages may not total to 100% due to rounding.

# **Summary of Pavement Condition**

# Tri-State Tollway (I-294/I-94)

The 77.6-mile Tri-State Tollway (I-294/I-80/I-94) was constructed in 1958 as part of the original pavement network and consisted of either two or three lanes in each direction. The two lane portions of this route were widened to three lanes in each direction in 1966 and at various times throughout the 1970s. As part of these widening projects, an HMA overlay was also typically added to the original lanes. A portion of the route from approximately 95<sup>th</sup> Street to the O'Hare Interchange, commonly referred to as the Central Tri-State, was widened to four lanes in each direction and either reconstructed or partially reconstructed in 1992 & 1993. The majority of this route has received a series of HMA overlays and subsequent resurfacing since the original construction. This HMA work typically did not address the deterioration of the underlying concrete base pavement. As a result, each subsequent HMA overlay resurfacing experienced a shorter life than the previous. Other significant factors which contribute to the reduced HMA

<sup>\*\*</sup> Lane Miles Surveyed does not equal total actual mainline mileage (2064.4) due to approximate beginning and ending points of the field survey, and the exclusion of auxiliary lanes and other lane types.

<sup>\*\*\*</sup> Sections that contained construction and the long bridges such as the Mile Long and Bensenville bridges on I-294 were excluded from the survey and listed as "Not Rated"

pavement surface life include increased truck volumes and the presence of larger and heavier trucks as permitted by Illinois law. The sections of pavement which were not reconstructed or partially reconstructed in 1992 and 1993 were reconstructed or reconstructed and widened to four lanes in each direction in 2006 to 2009 as part of the CRP. The sections of pavement which were reconstructed or partially reconstructed in 1992 and 1993 are programmed for rehabilitation in 2012 as part of the CRP and subsequent reconstruction in 2020 to 2022 as part of the Move Illinois Capital Program.

For the purposes of this report, the Tri-State Tollway is separated into three sections. These are the South, Central, and North Tri-State Tollway.

# South Tri-State Tollway (I-394 to 95th Street):

The majority of this pavement was rated in "excellent" condition (CRS) with an RSL rating of 20 years or more. The pavement from the Bishop Ford Freeway (I-94) to 163rd Street has undergone reconstruction and widening which was completed in 2007. The pavement from 163rd Street to 95th Street has undergone reconstruction and widening which was completed in 2009.

# Central Tri-State Tollway (95th Street to Balmoral Avenue):

The condition of this pavement varies widely from "excellent" to "fair" condition (CRS) with an RSL rating ranging between 0 and 4 years. The pavement from 95<sup>th</sup> Street to Balmoral Avenue was widened and either reconstructed or partially reconstructed in 1992 and 1993. The partial reconstruction and widening included the reconstruction of the outside (third) lane in each direction on the existing six-lane facility and the addition of a new fourth lane in each direction. The remaining two inside lanes in each direction were left in place, rehabilitated, and resurfaced. The reconstruction and widening areas included jointed plain concrete pavement throughout. Concrete repairs were completed in 2008, and should continue through 2012 as budget allows helping extend the life of the pavement and prepare the pavement for the rehabilitation programmed in 2012. Reconstruction of this section is programmed to occur in 2020 to 2022 as part of the Move Illinois Capital Program. Intermittent HMA repairs will likely be required in this area by 2017 and possibly annually thereafter until this scheduled reconstruction.

#### North Tri-State Tollway (Balmoral Avenue to Russell Road):

The majority of the pavement was generally rated in "excellent" to "good" condition (CRS) with an RSL rating of generally 20 years or more. The pavement from the O'Hare Interchange to the Deerfield/Edens Spur improvement limits and from Half-Day Road to the Wisconsin border has undergone reconstruction and widening which was completed in 2009. The remaining pavement from Balmoral Avenue to the O'Hare Interchange was reconstructed and widened in 1993.

The Deerfield/Edens Spur improvement was a project completed in 2000 which included the removal of the original Plaza 25 (Deerfield), widening and reconstruction of the Tri-State Tollway in the vicinity of Deerfield Road, reconstruction of the west end of the Edens Spur, construction of a new mainline Toll Plaza 24 on the Edens Spur, and reconfiguration of the Deerfield Road interchange ramps.

#### Edens Spur (I-94)

The 5-mile Edens Spur was constructed in 1958 as part of the original pavement network and consisted of two lanes in each direction. An HMA overlay was added to this pavement in 1976 and was subsequently resurfaced in 1995 and 2010. As part of the Deerfield/Edens Spur improvement project, the west end pavement was reconstructed in 1997 and Plaza 24 (Edens



Spur) was constructed in 1998. Plaza 24 (Edens Spur) was subsequently converted to ORT in 2006. The majority of this pavement was rated in "excellent" or "transitional" condition (CRS) with an RSL rating of 3 to 19 years. These ratings are primarily a result of the resurfacing of the Edens Spur completed in 2010 which has extended the RSL of this pavement. Reconstruction of this route is programmed to occur in 2021 to 2022 as part of the Move Illinois Capital Program. Intermittent HMA repairs will likely be required in this area by 2015 and possibly annually thereafter until this scheduled reconstruction

# Jane Addams Memorial Tollway (I-90)

The 75.9-mile Jane Addams Memorial Tollway (I-90), originally referred to as the Northwest Tollway until 2008, was constructed in 1957 as part of the original pavement network and consisted of two lanes in each direction. The pavement from East River Road to Barrington Road was widened to three lanes in each direction in 1967. The pavement from Barrington Road to US Route 20 (Marengo-Hampshire) was widened to three lanes in each direction in 1992 and 1998. The pavement from Newburg Road to Rockton Road was reconstructed and widened to three lanes in each direction in 2008. The majority of this route has received a series of HMA overlays and subsequent resurfacings since the original construction. In addition, intermittent HMA pavement repairs have been completed in 2000, 2001, 2004 and 2008 to 2011 throughout this route to extend the service life of the pavement. A rehabilitation of all lanes from milepost 54.4 (near Illinois Route 31) to milepost 63.7 (near Barrington Road) was completed in 2011 which included full depth concrete patches, removal of the existing HMA overlay and the placement of a thicker stone matrix asphalt (SMA) overlay. A rehabilitation of all lanes was completed from milepost 25.0 (Genoa Road) to milepost 29.2 (near Shattuck Road) in 2011 which included removal of the HMA overlay and the placement of a thicker SMA overlay.

The condition of the pavement west of Newburg Road was rated in "excellent" condition (CRS) with an RSL rating of 13 to 19 years. The condition of the pavement east of Newburg Road varies widely from "excellent" to "fair" condition (CRS) with an RSL rating ranging between 0 and 4 years. The higher CRS ratings with respect to the low RSL ratings for the pavement east of Newburg Road can be attributed to recent rehabilitation or resurfacing projects. These projects, while improving the CRS ratings, did not adequately address the deteriorating original concrete pavement and base. In addition, the resurfacing from Elgin to Newburg Road utilized material that has resulted in unpredictable failures that are difficult to identify for the annual intermittent HMA repair contracts. Some of this material was removed as part of the 2011 rehabilitation projects however, much still remains beneath the newly placed SMA surface. Reconstruction and widening of this route east of Newburg Road is scheduled to occur in 2013 to 2015 as part of the Move Illinois Capital Program.

#### Ronald Reagan Memorial Tollway (I-88)

The 26.7-mile Ronald Reagan Memorial Tollway (I-88), originally referred to as the East-West Tollway until 2006, east of Illinois Route 56 was constructed in 1957 as part of the original pavement network and consisted of two lanes in each direction. The pavement from the Eisenhower Expressway to Naperville Road was widened to three lanes in each direction in 1977. As part of these widening projects, an HMA overlay was also typically added to the original lanes. The pavement from Naperville Road to the Illinois Prairie Path was reconstructed and widened to three lanes in each direction in 1987. The pavement from Prairie Path to Plaza 61 (Aurora) and from Plaza 61 (Aurora) to Orchard Road was reconstructed and widened to three lanes in each direction in 2000 and 2008 respectively. The pavement from York Road to Naperville Road and from Naperville Road to Prairie Path was reconstructed and widened to four lanes in each direction in 2008-2009 and 2004-2005 respectively. Subsequently, the



pavement from the Eisenhower Expressway to York Road was resurfaced in 2008-2009.

The majority of the pavement along this route was rated in "excellent" to "good" condition (CRS) with an RSL rating that varies widely between 5 to 20 or more years (over 50% with an RSL of 20 or more years). Concrete pavement repairs were completed in 2008 and should continue as budget permits from Illinois Route 59 to the Fox River to extend the pavement life within this section. Reconstruction and widening of this route from Deerpath Road to Illinois Route 56 is scheduled to occur in 2012 as part of the CRP. Reconstruction from the Eisenhower Expressway to York Road is scheduled to occur in 2017 to 2019 as part of the Move Illinois Capital Program.

# Ronald Reagan Memorial Extension (I-88)

The 69.5-mile Ronald Reagan Memorial Extension was constructed in 1975 as a western extension of the original Ronald Reagan Memorial Tollway (I-88) west of Illinois Route 56 and consisted of two lanes in each direction. The pavement received an HMA overlay in 1993. The asphalt overlay was placed to a nominal 2½" thickness, which was thinner than the typical asphalt overlay thickness of 3". The thinner asphalt overlay was originally intended to act as a bond breaker for a future concrete overlay. However, due to the poor performance of a similar concrete overlay installation on a section of the original Ronald Reagan Memorial Tollway (I-88) the concrete overlay was never placed. Instead, the asphalt overlay was left as the riding surface. This thinner asphalt overlay did not perform well and required constant repairs by Tollway Maintenance. In January 2001, the asphalt overlay between Route 251 and Route 56 failed and the Illinois Tollway initiated immediate emergency repairs. Adverse weather conditions during the course of these emergency repairs limited their effectiveness and life expectancy thus requiring subsequent full-width, shoulder to shoulder resurfacing in the summer of 2001.

The majority of the pavement between IL Route 56 and IL Route 251 was rated in "good" to "transitional" condition (CRS) with an RSL rating of 1 to 8 years. The pavement from Illinois Route 56 to Illinois Route 251 was resurfaced in 2012 which should extend the service life of the pavement.

The 2004 Annual Inspections and preliminary development of intermittent HMA repair quantities in 2005 revealed severe deterioration of the pavement west of Illinois Route 251. It was decided to accelerate the reconstruction of this pavement that was originally programmed in 2006. The reconstruction included the removal of the original HMA overlay, the rubblization of the original concrete base pavement, and the application of a 6 inch HMA overlay. The rubblization consisted of breaking the original concrete pavement into baseball-size and smaller pieces. In 2015-2016, a CRP project will remove 2 inches of HMA overlay and place an additional 6 inch HMA overlay for a total HMA thickness of 10 inches

The majority of the pavement west of Route 251 was rated in "excellent" to "good" condition (CRS) with an RSL rating of 3 to 4 years. This pavement is showing signs of distress not typically related to a pavement of this construction or age. Investigations continue to be conducted to determine the cause of this condition and to recommend repairs to extend the life of this pavement to that of a typical rubblized pavement section. This pavement will continue to be monitored in the coming years. The areas of pavement that were resurfaced but not rubblized, such as at bridges and large culverts, are deteriorating. The Maintenance Division continues to make the necessary repairs and intermittent HMA repairs began in 2010 and continued in 2011. The shoulders throughout this section are exhibiting spring time heave issues similar to those that existed prior to the rubblization work. It is recommended that the

final stage of placing the additional six inch thick asphalt layer be completed and that the areas not rubblized be reconstructed as part of this work. The placement of the final asphalt layer within this section is scheduled to occur in 2015 as part of the CRP.

# Veterans Memorial Tollway (I-355)

The 17.5-mile Veterans Memorial Tollway (I-355), originally referred to as the North-South Tollway until 2007, north of Interstate 55 was constructed in 1988 and consisted of two lanes in each direction except between Maple Avenue and Butterfield Road which consisted of three lanes in each direction. The pavement from Plaza 89 (Boughton) to Maple Avenue and from Butterfield Road to North Avenue was widened to three lanes in each direction in 1994 and 1996 respectively. The pavement from Boughton Road to Interstate 55 was widened to three lanes in each direction in 2007 as part of the Veterans Memorial Extension project discussed later in this report. The pavement from Interstate 88 to 75<sup>th</sup> Street was widened to four lanes in each direction in 2008 and 2009. As part of these 2008 and 2009 widening projects, an HMA overlay was also added to the original three lanes. A HMA overlay was added to all lanes in each direction outside the limits of the aforementioned widening projects from North Avenue to Interstate 88 and from 75<sup>th</sup> Street to Boughton Road in 2010.

The majority of this pavement was rated in "excellent" condition (CRS) with an RSL rating of 5 to 19 years. Sections of this pavement which were not recently rehabilitated are exhibiting mid-slab breaks and other concrete deterioration typical to pavement of this age and design. Rehabilitation of this pavement outside the limits of the recent rehabilitation projects is scheduled to occur in 2013 as part of the Move Illinois Capital Program.

## Veterans Memorial Tollway (I-355) South Extension

The 12.3-mile Veterans Memorial Tollway (I-355) South Extension was constructed in 2007 as a southern extension to the original Veterans Memorial Tollway (I-355) south of Interstate 55 to Interstate 80 and consists of three lanes in each direction. Upon completion of the extension construction, the entire route was memorialized as the Veterans Memorial Tollway. This extension serves 13 municipalities/townships in three counties, and provides a regional connection that improves north-south mobility between Interstate 55 and Interstate 80.

The majority of this pavement was rated in "excellent" condition (CRS) with a RSL rating of 20 or more years.

#### 2.2 Roadway Appurtenances

The Tollway roadway appurtenances are visually inspected annually by the Consulting Engineer. This inspection consisted of the recording of visible deficiencies from the edge-of-shoulder to the right-of-way fence including the drainage systems and all safety appurtenances. Repair quantities were then estimated and prioritized based on the level of severity. These quantities are used to assist the Maintenance Division in scheduling work activities and the Engineering department in scheduling future contracts. Based upon this information, an overall condition rating was assigned for each area. The overall condition ratings utilized for the visual inspections are provided in the following table.



Table 4: Visual Roadway Appurtenances Inspection Ratings Summary

Rating	Description
Excellent	No deficiencies requiring repairs other than preventative maintenance noted.
Good	Deficiencies noted requiring repairs typically within the capabilities of the Tollway Maintenance Division.
Fair	Deficiencies noted requiring repairs by Contract or by the Tollway Maintenance Division. Deficiencies requiring repairs by Contract are typically beyond the capabilities of the Tollway Maintenance Division due to size, quantity, or repair process.
Poor	Deficiencies noted throughout which are beyond the capabilities of the Tollway Maintenance Division due to size, quantity, or repair process.

# **Drainage Systems**

Visual inspection of the Tollway roadway drainage systems was performed during the spring and summer of 2011. This inspection consisted of the recording of visible deficiencies of the drainage structures, crossing culverts, slopes, ditches and vegetation.

The drainage systems throughout the Tollway System are generally in excellent to fair condition. The majority of the embankment slopes are stable. Typical deficiencies noted during the inspections included concrete headwall issues; drainage structures requiring cleaning; drainage structures requiring repair due to heaving or sinking which may have been caused by expansion and contraction of the pavement or gutter during the summer months; tire rutting, washouts, sinkholes and erosion of slopes; and ditches identified requiring cleaning or restoration due to erosion. The specific deficiencies identified during the inspections are documented in the Annual Field Inspection Reports prepared for each Maintenance Section. Corrective repairs are recommended to be performed by the Tollway Maintenance Division within their capabilities. All deficiencies beyond the capabilities of the Maintenance Division are recommended for inclusion with any future contracts. Closed drainage systems are typical throughout the urban areas systemwide. Only limited inspections can be performed on closed drainage systems due to limited access, therefore it is recommended to have these televised and/or flushed to obtain better inspection data and to determine the general condition of these systems.

Crossing culverts are inspected for functionality, obstructions and conveyance. The crossing culverts throughout the Tollway System are generally structurally sound. However, some have exposed reinforcement bars, misaligned wingwalls, honeycombing of the concrete surface, open joints, deterioration of the metal pipe (metal pipe culverts), or require cleaning. The crossing culverts not replaced during recent reconstruction or rehabilitation projects may in some cases be over 50 years old.

The deterioration of Corrugated Metal Pipes (CMPs) continues to be a major concern regarding the drainage structures systemwide. The deterioration typically occurs along the flow line or at the joints of the pipe. This causes backfill material and soil to erode through the pipe during rain events creating voids beneath the roadway. As the volume of these voids increases, the probability of roadway pavement slab settlement or failure also increases. In many cases, these pipes may have been extended due to roadway widening or other construction. Although the ends of these pipes may appear in excellent condition, further examination reveals deterioration of the original pipe and separation of the joints where the original pipe joins the new.

Due to the collapse of several CMP crossing culverts, the Consulting Engineer completed a detailed systemwide inspection of all culverts which cross beneath Tollway pavement with a diameter of three feet or greater in 2007. The purpose of this inspection was to identify CMP culverts that require re-lining, repair or replacement. Culverts classified as bridges by the FHWA were not included in the inspection and are included with the bridge inspections.

To date, many CMPs have been replaced or lined as part of reconstruction or rehabilitation contracts. Additionally, two repair/lining contracts were completed in 2010 to repair or line CMPs with a diameter of three feet or greater that cross beneath pavement. These contracts have addressed some major concerns with crossing CMPs. However, smaller diameter and non-mainline crossing CMPs still require repair or replacement in future projects.

Due to the large quantity of CMPs located throughout the Tollway System and the over 50 years of changing roadways, not all CMPs may have been identified for repair or replacement in the initial contracts. It is recommended that replacement or repair/lining of CMPs systemwide continue in ongoing and future contracts as they are identified. If there are no programmed Capital Program projects in the near future, it is recommended that these drainage structures be televised, flushed and repaired in a systemwide contract.

The current Capital Programs include funds for drainage and safety improvements which are anticipated to include the repair or replacement of some CMPs.

Tall grasses and weeds have become increasingly problematic throughout the Tollway System. The high vegetation impedes the progress of the annual inspections by disguising sinkholes, erosion, and blocked drainage structures. It also provides available cover for deer and other wildlife near active roadways. Ticks have also increasingly become a hazard for the Tollway Maintenance Division and inspectors accessing the un-mowed right-of-way.

In the past, significant drainage system damage was averted due to early detection by Tollway Maintenance Division personnel operating the mowers. Additionally, regular mowing encourages the growth of grass and inhibits the growth of weeds. Weeds are opportunistic and tend to crowd out the grasses if they are not controlled. If regular mowing is not conducted, weeds will gradually displace the grasses.

It is recommended that the Tollway allow for mowing at least semi-annually. The first should occur either in late autumn when growth is virtually halted or early spring when vegetation growth is beginning. A second mowing should occur mid-season. This will help control overgrowth, allow for twice yearly systemwide visual inspection by the Tollway Maintenance Division, reduce fall fire hazards and help make right-of-way maintenance easier. This will also make the annual inspections more efficient by allowing the inspectors to readily observe deficiencies that may have gone unnoticed due to the high vegetation.

#### Safety Appurtenances

Visual inspection of the Tollway roadway safety appurtenances was performed during the spring and summer of 2011. This inspection consisted of the recording of visible deficiencies of the concrete barriers, guardrails, median cable barriers, crash attenuators, delineators and reflectors, roadway lighting and ITS systems, right-of-way fence, ground mounted traffic signs, pavement markings and raised pavement markers.



#### Concrete Barriers, Guardrail, Median Cable Barriers, and Crash Attenuators:

The concrete median barriers, guardrails, median cable barrier systems, and crash attenuators throughout the Tollway system are generally in excellent to fair condition. The specific deficiencies identified during the inspections are documented in the Annual Field Inspection Reports prepared for each Maintenance Section. Corrective repairs are recommended to be performed by the Tollway Maintenance Division within their capabilities. All deficiencies beyond the capabilities of the Maintenance Division are recommended for inclusion with any future contracts.

The guardrail within the limits of Capital Program reconstruction/rehabilitation projects have been upgraded as applicable. However, guardrail installations outside of these areas have generally not been upgraded, do not conform to the current Tollway standards, and in some instance do not conform to the requirements of National Cooperative Highway Research Program (NCHRP) Report 350. Some of these guardrail installations have mechanical deficiencies which the Illinois Tollway Maintenance Staff works diligently to repair. Additionally, Tollway policy requires that any guardrail safety concerns or damages as a result of vehicular accidents be addressed within 24 hours, though procurement requirements for new material sometimes prohibit this.

It should be noted that the FHWA does not require replacement of any safety appurtenance with new standards just for the sake of replacement. Installations of safety appurtenances are considered acceptable if they were installed according to the standard at the time of installation. In other words, if the safety appurtenance was crash-worthy at the time of installation, then it is still considered crash-worthy.

Guardrail standards are regularly updated to reflect current crash test data and new technologies. The current Tollway guardrail standards were developed in conformance with the requirements of NCHRP Report 350. In 1993, NCHRP Report 350 was published by the NCHRP which conducts research in areas of highway planning, design, construction, operation and maintenance nationwide. NCHRP Report 350 presents uniform guidelines for the crash testing of highway safety features, recommends evaluation criteria for the assessment of the crash test results, and presents guidelines for the in-service evaluation of safety features. These guidelines are developed utilizing current technology and the collective judgment and expertise of experts in the field of roadside safety design. NCHRP Report 350 parts A and B are available for free download at:

- http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp rpt 350-a.pdf
- http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp rpt 350-b.pdf

As stated previously, the FHWA does not require that the safety appurtenances throughout the Tollway System be upgraded just for the sake of replacing, however the Tollway has no tort immunity as many governmental agencies do. The Tollway Risk Management Division works in conjunction with other departments to maintain loss control. Considering these factors and to protect the interests of the Tollway, it is recommended that all guardrail installations which have not been successfully tested under NCHRP Report 350 be upgraded or programmed to be upgraded to the current Tollway standard by 2013.

The current Capital Programs include funds for drainage and safety improvements systemwide which should include the replacement of non-NCHRP Report 350 compliant guardrail installations. Median cable barrier systems are installed west of the Fox River on the Jane

Addams Memorial Tollway (I-90), west of Illinois Route 31 on the Ronald Reagan Memorial Tollway (I-88), along the Edens Spur (I-94), at the southern terminus of the Veterans Memorial Tollway (I-355), and along the Ronald Reagan Memorial Tollway (I-88) connector ramps with the Tri-State Tollway (I-294) commonly referred to as the Mary and Nora ramps. Median cable barrier systems consist of tensioned cables extending between bridges and emergency turnarounds in grassy median locations to minimize the occurrence of passenger cars crossing into oncoming traffic. The median cable barrier system is a relatively new safety device with few federal standards, though all installations are inspected to ensure they meet the current industry practices. The Consulting Engineer continues to monitor the federal and state agencies for best practices and other policies regarding the cable barrier system.

#### Delineators and Reflectors:

The delineators and reflectors throughout the Tollway System are generally in good to fair condition. Damage to these typically occurs due to traffic accidents or by snowplows. As these inspections typically occur at the end of the winter season, it is common to note large quantities of missing or damaged reflectors. The Tollway Maintenance Division performs regularly scheduled maintenance on these items systemwide at least twice annually.

The specific deficiencies identified during the inspections are documented in the Annual Field Inspection Reports prepared for each Maintenance Section. Corrective repairs are recommended to be performed by the Tollway Maintenance Division within their capabilities. All deficiencies beyond the capabilities of the Maintenance Division are recommended for inclusion with any future contracts.

#### Raised Pavement Markers:

The plowable raised pavement markers (RPMs) throughout the Tollway System are generally in good to poor condition. Many areas of missing reflectors or castings were noted during the inspections. The Tollway Maintenance Division regularly replaces missing or damaged reflectors approximately twice a year. However, since the replacement of missing castings is typically beyond the capabilities of the Maintenance Division, it is recommended that missing or damaged castings continue to be included with any future contracts or systemwide contracts.

Note that RPMs were not installed as part of many recent reconstruction and widening projects while a study was conducted to review their use. The findings have indicated that RPMs will now be installed as part of future rehabilitation and reconstruction projects.

#### Pavement Markings:

The pavement markings throughout the Tollway system are generally in good to fair condition. Typical deficiencies noted were missing or damaged section of pavement markings. The specific deficiencies identified during the inspections are documented in the Annual Field Inspection Reports prepared for each Maintenance Section.

The Consulting Engineer maintains a Pavement Marking Database which contains historical installation data and retroreflectivity values collected by the Tollway's Pavement Management Consultant. These values are updated as new information becomes available. The retroreflectivity values in conjunction with visual inspection and age of the markings is utilized by the Tollway to determine areas for inclusion in the annual systemwide pavement marking contract and the scheduling of future contracts.

The ongoing annual pavement marking renewal program continues to improve the pavement



marking visibility throughout the system. As part of this annual program, pavement markings are upgraded and maintained through the use of epoxy paint. The Tollway has engaged the Pavement Management Consultant to perform retroreflectivity testing of several pavement marking materials with recessed and surface applications. The study, located along the Ronald Reagan Memorial Tollway (I-88), the Veterans Memorial Tollway (I-355) and the Jane Addams Memorial Tollway (I-90) is in its fourth year and is expected to indicate future pavement marking practices to be utilized systemwide. Since pavement marking replacement is typically beyond the capabilities of the Maintenance Division, it is recommended that areas of deficient pavement markings as identified in the visual inspection and areas which exhibit low retroreflectivity be included with the annual systemwide pavement marking contract.

# Roadway Lighting System:

The roadway lighting systems throughout the Tollway System are generally in good to fair condition. The majority of the light poles appeared to be plumb with no noticeable movement or tilt. The typical deficiencies noted during the inspections were concrete or helix foundations which have been installed too high (over four inches from finished grade) or installations with improper breakaway devices. These are generally not shielded with guardrail and minimize the effectiveness of the breakaway bases installed on the poles by creating a snag point. Additionally, instances of missing light pole handholes with exposed pole wiring were noted.

It is recommended that, as part of any contracts, a barrier warrant analysis be completed at all locations which unshielded concrete and/or helix light pole foundations protrude four inches or more above finished grade and at locations where unshielded ground mounted light poles do not include sufficient breakaway devices to determine the appropriate course of action.

The specific deficiencies identified during the inspections are documented in the Annual Field Inspection Reports prepared for each Maintenance Section. Corrective repairs are recommended to be performed by the Tollway Maintenance Division within their capabilities. All deficiencies beyond the capabilities of the Maintenance Division are recommended for inclusion with any future contracts.

Intelligent Transportation System (Roadway Infrastructure):

The ITS systems throughout the Tollway System are generally in excellent to good condition. Instances were noted at which a pole mounted ITS device has been located possibly within the roadway clear zone without proper shielding. It should be noted that even if a breakaway device is installed at such a pole, the wiring within the pole is not installed with breakaway connectors thus rendering the breakaway device ineffective.

It is recommended that, as part of any contracts, a barrier warrant analysis be completed at all which unshielded ITS elements are installed within the clear zone to determine the appropriate course of action.

The specific deficiencies identified during the inspections are documented in the Annual Field Inspection Reports prepared for each Maintenance Section. Corrective repairs are recommended to be performed by the Tollway Maintenance Division within their capabilities. All deficiencies beyond the capabilities of the Maintenance Division are recommended for inclusion with any future contracts.



## Right-of-Way Fence:

The right-of-way fence throughout the Tollway system is generally in excellent to good condition. Recent reconstruction projects have included the replacement of existing four foot high field right-of-way fencing with the current Tollway standard six foot high chain-link fencing. This type of fence is more compatible with continued adjacent development and serves as a better barrier to pedestrians and animals from entering the Illinois Tollway property.

The majority of right-of-way fencing on the Tri-State Tollway (I-294/I-94) and the Ronald Reagan Memorial Tollway (I-88) and all of the Veterans Memorial Tollway (I-355) has been upgraded to the current Illinois Tollway standard chain-link fence as required. Additionally, approximately half of the Jane Addams Memorial Tollway (I-90) has been upgraded to the current Illinois Tollway standard six foot chain-link fencing as required. The Tollway follows guidelines for land use such that fence in the vicinity of residential or public access is to be upgraded to the current Tollway standard six foot chain-link fence; whereas fence located in rural or other areas not readily accessible such as cornfields may remain with the four foot high field fence.

The Consulting Engineer previously recommended that the original four foot high field fence continue to be upgraded, where necessary, to the current Illinois Tollway standard six foot high chain-link fence as major projects are programmed. In areas where no major projects are programmed by 2013, it is recommended that right-of-way fence improvements be programmed in a systemwide contract.

### Ground Mounted Traffic Signs:

The ground mounted traffic signs throughout the Tollway System are generally in good condition. Damage to these signs typically occurs due to traffic accidents or by snowplows. The Tollway Sign Shop repairs or replaces these as damage occurs. Additionally, instances were noted at which wooden ground mounted traffic sign posts are either installed with incorrectly placed or missing breakaway holes.

The specific deficiencies identified during the inspections are documented in the Annual Field Inspection Reports prepared for each Maintenance Section. Corrective repairs are recommended to be performed by the Tollway Maintenance Division within their capabilities. All deficiencies beyond the capabilities of the Maintenance Division are recommended for inclusion with any future contracts.

The ground mounted traffic sign inspection does not include overhead sign structures which are discussed elsewhere within this report. In addition, traffic signs are only rated based upon visual inspection of the physical condition. Retroreflectivity measurements are not taken as part of these inspections and are not accounted for in the ratings assigned.

New standards were developed for milepost markers across the nation per the Manual on Uniform Traffic Control Devices (MUTCD). Therefore, the Tollway Maintenance Division developed a new milepost marker standard conforming to the MUTCD standards while meeting the needs of field staff and patrons. These new milepost markers were placed at quarter mile increments instead of the past half mile increments on all routes by December of 2009, with the exception of the Jane Addams Memorial Tollway in which the new markers were installed in October 2010. The Tollway utilized existing contracts and the Maintenance Division to install the new milepost markers.

The Tollway investigated re-numbering each route to ensure proper mile marker placement

conforming to the Federal Guidelines for interstate numbering. Based on the results of this investigation, the North Tri-State Tollway and the Edens Spur (I-94) mile marker numbering was reversed in December 2009 and the Jane Addams Memorial Tollway (I-90) mile marker numbering was reversed in October 2010. This effort will eventually allow for exit numbering to be utilized on the Tollway System which is programmed to occur in 2012 to 2013. The Jane Addams Memorial Tollway (I-90) exit numbering will be revised as part of the reconstruction and widening between 2013 and 2016. The reversing of mile marker numbering was coordinated with all outside agencies, particularly those involved in emergency response. Training for the new mile markers was conducted with internal staff in Dispatch, Maintenance, TIMS, Toll Operations, IT and Engineering.

#### 2.3 Structures

The structural elements inspected throughout the Illinois Tollway System consist of bridges, large culverts, retaining walls, noise abatement walls, and overhead sign structures.

## **Bridges and Large Culverts**

In accordance with Federal Highway Administration (FHWA) guidelines, bridges on the Tollway system must receive a routine inspection at least every two years. A routine inspection consists of, at a minimum, a complete visual inspection of all major components of the bridge. Routine inspections determine the physical and functional condition of the bridge and identify any changes from "Initial" or previously recorded conditions. Inspection of underwater portions of the substructure is limited to observations during low-flow periods. The Tollway conducted routine bridge inspections in 2011 and the resultant "Structure Inspection Field Reports" were reviewed by the Consulting Engineer.

As part of the inspections, condition ratings are assigned to the deck, superstructure, and substructure components of each bridge inspected. The bridge deck consists of the wearing surface, joints, and parapets. The superstructure consists of beams, diaphragms, and stiffeners. The substructure consists of piers, abutments, bearings, foundations, slope and crash walls, and piling.

It should be noted that many of the bridge decks which pass over the Tollway are not under the Tollway's jurisdiction. However, these bridge decks are included with the inspection as an informational courtesy to the responsible agency.

The FHWA classifies culverts as bridges if the span of the culvert is at least 20 feet when measured along the centerline of the roadway. Therefore, all Tollway culverts that meet this criterion are also inspected at a minimum every two years as part of the bridge inspections and are assigned a condition rating similar to that of the bridges. A Health Index, as described below, is then determined from this condition rating. The Health Index for culverts is directly related to the condition ratings used for the annual bridge inspections. This rating is an all-encompassing review of the culvert elements and only recorded as a single rating value. In 2009, the Health Index calculation for culverts was changed to follow the same description as bridges.

There are currently 642 structures classified as bridges throughout the Tollway System. Of these, there are 568 vehicular bridges, nine railroad bridges, 55 culvert bridges, one land bridge, four pedestrian bridges, and five over-the-road oasis structures. Of these structures, 335 were inspected by the Tollway in 2011.



The Federal guidelines do not include deck ratings in the determination of the overall bridge condition rating. Therefore, the deck is not usually the driving force behind replacement. However, the deck is important in the programming of repair work based on general aesthetics and rideability. The deck is also the most visible bridge component to the traveling motorist/patron so the deck should be accounted for in the overall bridge condition rating.

Accordingly, the Consulting Engineer created a Health Index in order to more appropriately quantify the condition of the bridges throughout the Tollway system. The Health Index is a weighted representation of the deck, superstructure and substructure ratings based on field inspections and is intended to give an overall indication of the structural integrity of a bridge. A higher weight is placed on the deck rating because the deck tends to deteriorate faster than the other components of the bridge.

The Health Index is a number on a scale from 0 to 100 with 100 being the best. It does not consider the individual ratings of components such as joints, diaphragms or bearings, though these ratings are generally used to develop future repair contracts. The Health Index replaces the "Overall Condition" rating that had been used prior to 2005 to classify the bridges. The following table provides descriptions of the bridge Health Index numbers.

**Table 5: Bridge Health Index Number Descriptions** 

H.I.	Description
≥90	No problems or some minor problems noted. No action required.
89 – 80	Some areas of minor deterioration. Minor repair by Maintenance or Contract would prevent additional deterioration.
79 – 70	Structural elements are sound but exhibit minor section loss or deterioration. Repair Contract likely needed within 5 years.
69 – 60	Advanced section loss. Repair Contract should be initiated within 2 years.
< 60	Advanced loss of section and deterioration. Local failures possible. Immediate attention needed

The following table illustrates the bridge inspection health index summary. Since the bridges are on a two-year inspection cycle, the table illustrates the health index rating for all bridges inspected in 2010 and 2011.

**Table 6: Bridge Inspection Summary** 

Health Index	2010	2011	Total
≥90	256 (83.4%)	284 (84.8%)	540 (84.1%)
80-89	38 (12.4%)	34 (10.1%)	72 (11.2%)
70-79	12 (3.9%)	13 (3.9%)	25 (3.9%)
60-69	1 (0.3%)	4 (1.2%)	5 (0.8%)
<60	-	-	-
Total	307	335	642

Five bridges have a health index indicating repairs are necessary within two years. The Tollway Engineering Department works diligently to include necessary bridge repairs in upcoming contracts. Of the five bridges, one bridge was scheduled for deck replacement in 2012 and one

bridge was scheduled for reconstruction 2011 thru 2012. These bridges are jointly maintained, with IDOT having jurisdiction for the deck. Another bridge is fully maintained by IDOT and a timeframe for work on this bridge has not been communicated to the Tollway. The other two bridges are rated low because of frozen bearings. This condition does not impact the capacity of the structure and these bridges are programmed to be rehabilitated in 2015 as part of the Jane Addams Memorial Tollway (I-90) reconstruction.

In 2011, the Consulting Engineer performed an in-depth inspection of 79 bridges throughout the Tollway System. In-depth inspections are performed by the Consulting Engineer at those bridges most in need of repair as identified in the previous year's biennial inspection by the Tollway and which are not already programmed into a repair contract or were identified for monitoring. The in-depth inspection is conducted in addition to the biennial inspection. If a bridge over a railroad was scheduled for inspection, the adjacent twin bridge was also inspected while permission for railroad site access was available. Additionally, the Tollway has requested that the Consulting Engineer also inspect Fracture Critical bridges carrying highway traffic. Indepth inspections are generally not performed for bridges included in current design or construction contracts. The intent of the in-depth inspection is to gather defect repair quantities in order to develop anticipated costs and contract scopes for future bridge repair projects. The Consulting Engineer has provided the Tollway with repair recommendations resulting from the in-depth inspections in 2011 and a grouping of the bridges into recommended contracts for design and construction.

Bridge deck age is also a good general indicator of the amount of bridge work that may be required in the future. The typical expected service life of a bridge deck is 40 to 50 years. It is recommended that bridge decks aged over 40 years be replaced during the next repair cycle to reduce the need and frequency of interim repairs. The following table provides the number and percentage of bridge decks throughout the Tollway System within various age categories. To date, the bridge decks aged over 40 years are programmed for construction as part of the multi-year systemwide budget or the Capital Program

Table 7: Bridge Deck Age

	Age	Number of Decks	Percent of Total
	Over 40 Years	201	34.2%
Bridge Decks:	25 to 40 Years	33	5.6%
Decks:	1 to 25 Years	350	59.6%
	Under 1 Year	3	0.5%
Total		587*	100%

<sup>\*</sup> This bridge deck age summary does not include bridge culverts

# Retaining and Noise Abatement Walls

Visual inspections of the retaining and noise abatement walls located throughout the Tollway System are performed annually. Due to the number of structures to be inspected, the effort is scheduled as a multi-year task. The retaining and noise abatement walls throughout the Tollway System are generally inspected on a four-year cycle. However, newly constructed structures or those last rated in excel lent condition may be inspected on a slightly extended cycle due to the expectation of their remaining in excellent condition for several years. Approximately, one quarter of Tollway retaining and noise abatement walls are inspected each year.

An overall condition rating is assigned for each retaining or noise abatement wall inspected. In

order to improve objectivity and uniformity between maintenance sections and inspectors, a condition rating system was developed for the retaining and noise abatement wall inspections. Deficiencies noted at retaining and noise abatement walls rated in excellent to fair condition are typically minor and do not require immediate attention. These deficiencies are typically addressed by the Maintenance Division or are included in a future contract. Therefore, recommendations are only provided for retaining and noise abatement walls rated in poor to critical condition since those deficiencies typically require either monitoring or immediate attention.

The following table illustrates the retaining and noise abatement wall inspection summary. Since the retaining and noise abatement walls are on a four-year inspection cycle, the table illustrates the condition rating for all retaining and noise abatement walls inspected from 2008 to 2011.

2008	2009	2010	2011
20 (12.5%)	-	43 (28.9%)	7 (7.4%)
90 (56.3%)	63 (73.2%)	55 (36.9%)	12 (12.6%)
46 (28.8%)	19 (22.1%)	34 (22.8%)	54 (56.8%)
2 (1.3%)	4 (4.7%)	9 (6.0%)	18 (18.9%)
	20 (12.5%) 90 (56.3%) 46 (28.8%)	20 (12.5%) - 90 (56.3%) 63 (73.2%) 46 (28.8%) 19 (22.1%)	20 (12.5%)       -       43 (28.9%)         90 (56.3%)       63 (73.2%)       55 (36.9%)         46 (28.8%)       19 (22.1%)       34 (22.8%)

2 (1.3%)

160

8 (5.4%)

149

4 (4.2%)

95

Table 8: Retaining and Noise Abatement Wall Inspection Summary

There have been a number of reconstruction and new route constructions completed in 2007 to 2009 as part of the CRP, with many new retaining and noise abatement walls constructed systemwide. Many of these structures are not accounted for in the above table of inspections over the previous four years as they have yet to be phased into the inspection schedule. This is due to the expectation that they will remain in excellent condition for several years. These structures are expected to be phased into the inspection schedule during the 2013 to 2014 inspections.

86

The majority of retaining and noise abatement walls throughout the Tollway system are generally in good condition. There are 47 walls systemwide rated in poor or critical condition. Those listed in critical condition prior to 2010 have been repaired or replaced. The remaining walls rated in critical condition have been or will be included in contracts for repair or replacement within the next two years. These walls are being monitored until permanent repairs are completed. The walls listed in poor condition have been programmed within the Capital Programs or will be remedied as part of repair projects.

# **Overhead Sign Structures**

Critical

**Total Walls** 

Inspected

Visual inspections of the overhead sign structures located throughout the Tollway System are performed annually. Due to the number of structures to be inspected, the effort of detailed inspection is scheduled as a multi-year task. The overhead sign structures throughout the Tollway system are generally inspected on a four-year inspection cycle. There have been a number of overhead sign structures added over the last few years as part of the CRP. These overhead sign structures have not been included in the current overall inventory but will be

phased into the inspection cycle. However, these are expected to be in excellent condition for several years.

The following table illustrates the condition rating for all overhead sign structures inspected from 2007 to 2011. This table does not include the newly constructed sign structures which will be inspected in 2012. In addition, the table accounts for special inspections conducted in interim years.

Table 9: Overhead	Sign	Structure	Inspection	Summary

Condition	2007	2008	2009	2010	2011
Excellent	15 (11.1%)	15 (13.4%)	15 (11.2%)	24 (14.8%)	49 (31.0%)
Good	61 (45.2%)	81 (72.3%)	92 (68.7%)	100 (61.7%)	95 (60.1%)
Fair	58 (43.0%)	14 (12.5%)	25 (18.7%)	35 (21.6%)	13 (8.2%)
Poor	1 (0.7%)	2 (1.8%)	2 (1.4%)	2 (1.2%)	1 (0.6%)
Critical	-	-	-	1 (0.6%)*	
Total Sign Structures Inspected	135 (80**)	112	134	162	158

<sup>\*</sup> Sign NS29.0T, NB was rated critical in 2010 due to damage from a vehicle collision in July 2010. It was repaired, and re-inspected in 2011, and rated as fair.

The majority of overhead sign structures throughout the Tollway system are generally in excellent to fair condition. There are seven overhead sign structures last rated in poor condition and one sign structure last rated in critical condition. The critical condition rating was resolved after the inspection. The sign is rated fair due to collision damage in the support beams that was deemed structurally insignificant by the contractor's engineer and not repaired. The Maintenance Division has addressed hardware issues at two locations while the remaining signs rated in poor condition have been repaired or are scheduled for repair under construction contracts

#### 2.4 Facilities

Visual inspections of the facilities located throughout the Tollway System are performed annually by the Tollway's Consulting Engineer. The inspection consists of the recording of visible deficiencies of all facility elements including but not limited to buildings, tunnels, canopies, and sites with associated appurtenances. Facilities that are inspected include maintenance facilities, toll plazas, telecommunications buildings, oases and miscellaneous facilities.

Due to the number of Tollway facilities to be inspected of various complexities, the effort is scheduled as a multi-year task. The facilities throughout the Tollway System are generally inspected on a four-year cycle. However, newly constructed facilities or facilities last rated in excellent condition may be inspected on a slightly extended cycle due to the expectation of these facilities remaining in excellent condition for several years. Approximately, one quarter of Tollway facilities are inspected each year

The objective of these inspections is to assess the general condition of Tollway facilities and

<sup>\*\* 80</sup> of 135 sign structures were not inspected in 2011 due to changes in the inspection cycle to include recently installed structures.

associated site elements, identification of elements requiring remedial work, to make repair or replacement recommendations, and an evaluation of the remaining useful life. The data provided by these inspections is utilized by the Tollway in programming repairs and replacements of various facility components and to aid the Tollway Building Maintenance Division in planning and estimating maintenance repairs. The evaluations and recommendations are based upon visual observations, discussions with Tollway Building Maintenance Division personnel, and the reviews of available reports. Emphasis is given to the identification of specific issues identified by on-site personnel experienced with the actual operating conditions of the facility. No destructive or non-destructive testing is performed and no physical samples are collected as part of these inspections.

An overall condition rating is assigned for each facility inspected. Additionally, a separate condition rating is also typically assigned to each associated facility element. In order to improve objectivity and uniformity between facilities inspected and inspectors, a rating system was developed. Based upon the assigned condition rating, the future inspection schedule for each facility may either remain on a four-year cycle or be recommended for more near-term inspections. The overall condition ratings utilized for the visual inspections are provided in the following table.

**Table 10: Visual Facilities Inspection Ratings Summary** 

Table 10. Visual Facilities hispection Ratings Sulfilliary				
Rating	Description			
Excellent	<ul> <li>All four conditions must be exhibited:</li> <li>New Facility or component</li> <li>No repair required</li> <li>Condition like new</li> <li>Component performing as intended</li> </ul>			
Good	<ul> <li>All four conditions must be exhibited:</li> <li>Facility is performing essentially as intended</li> <li>Minor repair required (i.e. paint, clean, patching, etc.)</li> <li>Less than 25% of the replacement cost of the facility or component is required to return the component to intended condition.</li> </ul>			
Poor	<ul> <li>Any condition exhibited may be cause for rating:</li> <li>Facility is approaching end of useful life</li> <li>Major components need extensive repair / replacement work</li> <li>25% - 50% of the replacement cost of the system or component is required to return the component to intended condition</li> </ul>			
Critical	<ul> <li>Any condition exhibited may be cause for rating:</li> <li>System or component is non-functioning</li> <li>Safety or environmental concerns are prevalent (If component exhibits safety or environmental concerns, entire system will be graded as critical)</li> <li>More than 50% of the replacement cost of the facility or component is required to return the component to intended condition</li> </ul>			

Many of the inspected Tollway facilities are over fifty years old and are candidates for rehabilitation or replacement of their component systems. Renovation work performed at these

locations has enabled the facilities to continue to function. Architectural and site improvements have been made to maintenance facilities on an "as needed" basis through capital improvement projects. In addition, the I-PASS implementation program has enabled many upgrades, renovations, and replacement of toll plazas. Although the inspected facilities are functioning, the condition of the major systems (mechanical, electrical, HVAC, plumbing, roofing, etc.) continues to deteriorate resulting in inefficiencies and higher operational costs.

The Tollway Building Maintenance Division forces provide necessary day to day repairs of facilities to the extent possible. More intensive repair and rehabilitation work is performed under the Renewal and Replacement Program included within systemwide work and specific projects under the Move Illinois program going forward.

#### Maintenance Facilities and Miscellaneous Facilities

The maintenance facilities consist of garages, offices, salt domes, gas pumping facilities, storage buildings, telecommunication towers and other components.

The Consultant Engineer completed a Maintenance Yard Assessment for each Maintenance Facility Site throughout the system in 2006 and 2007. These assessments reviewed the functionality, efficiency and condition of the sites, buildings, and all facilities located within and made recommendations for improvement or replacement. Details of these assessments are available in the respective Assessment and Recommendation Report for each maintenance facility. These reports were utilized to develop a ten year Facilities' Capital Program. A scope and schedule for the 10 year program was previously approved. The Move Illinois program includes rehabilitation, replacement, and relocation of the maintenance

In late 2007, the Tollway initiated a contract for a Maintenance Facilities Program Manager. This contract annually re-evaluates the work required at the Maintenance Facilities and prioritizes this work based on available funding. This contract is scheduled to expire at the end of 2012.

A major Facilities' Capital Program to repair or replace a number of maintenance facility buildings began in late 2008. The initial emphasis of this program was the repair of existing systems and the improvement of the working environment for Tollway employees. These improvements have been and continue to be consistent with the Tollway's desire for sustainable facilities.

To date, the following improvements were made at most of the appropriate maintenance facility buildings as part of the Facilities' Capital Program.

- The existing carbon monoxide (CO) detection and exhaust systems were tested and either repaired or replaced
- The lighting systems in the maintenance shops were replaced with new more efficient luminaires with better color rendition
- Maintenance facility garages with gabled roofs had the gutters and downspouts replaced and snow guards installed
- Locker room renovations
- Fuel system upgrades
- Various roof repairs
- Oil dispensing system replacement
- Electrical system upgrades and generator installation
- Emergency lighting installation
- Selective asbestos abatement



• Salt dome and chloride station replacement

The currently identified condition of the maintenance facilities is as follows:

- M-1 (Alsip) Good Condition identified in 2011 inspection
- M-2 (Hillside) Good Condition identified in 2006 inspection
- M-3 (Park Ridge) Poor Condition identified in 2008 inspection
- M-4 (Gurnee) Good Condition identified in 2006 inspection
- M-5 (Arlington Heights) Poor Condition identified in 2012 inspection
- M-6 (Marengo) Good Condition identified in 2010 inspection
- M-7 (Rockford) Good Condition identified in 2010 inspection
- M-8 (Naperville) Poor Condition identified in 2010 inspection
- M-11 (DeKalb) Good Condition identified in 2006 inspection
- M-11 (Dixon) Good Condition identified in 2006 inspection
- M-14 (Downers Grove) Poor Condition identified in 2008 inspection

#### Toll Plazas

There are a total of 74 toll plazas consisting of 22 mainline plazas, two attended ramp plazas, and 50 unattended ramp plazas located throughout the Tollway system. Of those inspected during the most recent inspection cycles:

- 7 (9.5%) were recently constructed,
- 5 (6.8%) were last rated in excellent condition,
- 55 (74.3%) were last rated in good / satisfactory condition,
- 7 (9.5%) were last rated in poor condition, and
- 0 (0%) were last rated in critical condition.

The majority of Toll Plazas throughout the Tollway system were last rated in excellent to good condition. There are seven Toll Plazas system-wide last rated in poor condition. These facilities will be monitored until repair or replacement is completed. Items noted as recently constructed above have yet to be phased into the inspection schedule due to the expectation that they will remain in excellent condition for several years. These facilities are scheduled for inspection during the 2013 to 2014 inspections.

### **Telecommunication Towers**

There are a total of nine standalone Telecommunication Towers which include a local control building housing fiber, IT and communication requirements located throughout the Tollway system. There are a total of 62 communication towers that relay data throughout the system that are located at toll plazas or maintenance facilities where the communication is routed directly into a communications room within that facility and therefore inspected as part of that facility. Of those standalone Telecommunications Towers inspected during the most recent inspection cycles:

- 4 (44%) were recently constructed,
- 2 (22%) were last rated in excellent condition,
- 2 (22%) were last rated in good / satisfactory condition,
- 1 (11%) were last rated in poor condition, and
- 0 (0%) were last rated in critical condition,



The majority of Telecommunication Towers throughout the Tollway system were last rated in excellent to good condition. There is one Telecommunication Tower last rated in poor condition. This facility will be monitored until repairs or replacement is completed.

Items noted as recently constructed above have yet to be phased into the inspection schedule due to the expectation that they will remain in excellent condition for several years. These facilities are scheduled for inspection during the 2013 to 2014 inspections.

#### **Oases**

In 2002, the Tollway entered into a lease agreement with a private company for the operation of the seven Oases on the system. The lease agreement required the company to rehabilitate the oases. Oasis remediation work, including new fuel stations, car wash and convenience stores at all oases, was completed and all reopened between 2004 and 2006. The facilities, fueling stations and car parking lots were upgraded as part of these projects; however, little or no work was completed in the adjacent truck parking lots. Additionally, inspections became the responsibility of the lessees upon completion of the rehabilitation projects. In 2009, at the request of the Tollway, the inspections of the Oases by the Consulting Engineer resumed.

All seven Oases were last inspected in 2009 and found to be in good condition, requiring minor or no repair work, except for the truck parking lots and some access roads.

### 2.5 Intelligent Transportation Systems (ITS)

Deployment of Intelligent Transportation Systems (ITS) on the Tollway began in the late 1980s with the installation of Road Weather Information Systems (RWIS) for monitoring atmospheric and pavement conditions during inclement weather. The system was further expanded with the construction of a system-wide fiber optic communications network and the electronic tolling initiative in the late 1990s.

Since then, the Tollway ITS system has been expanded and enhanced to include a system-wide network of communications, monitoring, and traveler information tools. This system has enhanced the Tollway's ability to meet the overarching traffic and incident management goals and objectives of improving mobility, efficiency, and safety of the Tollway roads.

Today the Tollway ITS system includes the following primary components:

- System-wide fiber optics and communications equipment
- Electronic toll collection
- Closed circuit camera surveillance (CCTV) for detecting, verifying and monitoring congestion and incidents
- Dynamic message signs (DMS) for providing traveler information to the motoring public
- Remote Traffic Microwave Sensors (RTMS) traffic detection devices for measuring travel speeds and congestion on mainline and ramp segments
- Portable changeable message signs (PCMS) for providing traveler information to motorists on a short-term basis or within construction zones
- Weigh-in-motion (WIM) to assist overweight vehicle enforcement measuring the weight of vehicles moving at highway speeds
- Road weather information systems (RWIS) to assist management and response to snow and ice events by measuring atmospheric and pavement conditions
- Wireless Queue/Count Stations for automatic queue detection and traffic counting



These components are integrated into a central Traffic and Incident Management System (TIMS) which is monitored and controlled from the traffic operations center at the Central Administration (CA) building. The TIMS is a management platform that allows operators to monitor traffic conditions in real-time, manage response and clearance of incidents, monitor construction zones, and communicate with a variety of stakeholders including Illinois Tollway staff, the media, and directly to the motorist.

Since 2010, the Tollway's focus has shifted from significant expansion of the ITS system, which coincided with the broader CRP, to maintenance and management of existing assets. While additional deployment was scaled down compared to recent years, the system did continue to expand as part of both standalone ITS projects and the "mainstreaming" of ITS system within larger roadway rehabilitation projects. Major deployments included the following.

- Weigh-in-Motion (WIM): Building on the three sites in operation at the end of 2009, the Tollway began expanding the WIM network through the deployment of two key sites on the system. These two sites were constructed on either end of the Tri-State Tollway such that traffic may be weighed entering the Tollway System from either Wisconsin or Indiana. These two sites are the first of several planned for the Tri-State Tollway which generally carries the highest volume of commercial vehicle traffic. These sites will assist District 15 of the Illinois State Police to enforce vehicle weight limits and ultimately extend the life of the Tollway's infrastructure by minimizing the volume of unpermitted overweight vehicles.
- Edens Spur (I-94): As part of the Edens Spur (I-94) rehabilitation project in 2010, several additional ITS elements were included to complete coverage for the current systems in use. These included the deployment of three additional CCTV cameras, two additional RTMS vehicle detectors, and two additional ramp queue/count stations. The ramp queue/count station technology is a dual-purpose application. Operational data with regards to stopped or slowed traffic on ramps will be provided to allow the Tollway to respond to potentially hazardous conditions which may impact traffic flow. In addition, it will provide Tollway traffic engineers with traffic volume data used for planning purposes. This secondary function is a new application of basic traffic detection that eliminates the need for the Tollway to periodically deploy temporary traffic counting devices thus reducing costs over time while minimizing the hazards involved with the setup and takedown of temporary counters. The ITS portion of this project was completed in 2011 with the integration of a back office ramp queue/count system server at CA and successful end to end system testing.
- Smart Work Zone: Also as part of the Edens Spur (I-94) project in 2010, the Tollway continued its initiative to utilize technology to better manage construction work zones. A Smart Work Zone is the application of the Tollway's fundamental traffic and incident management practices and procedures on a construction work zone to enhance safety and mobility through that area. Traffic and Incident Management becomes even more crucial in construction work zones as capacity is reduced, motorists have more information to process, conditions are subject to change regularly, the safety of motorists and workers must be addressed and mobility must be maintained. Contending with and balancing these issues requires a clear picture of what is occurring within the construction work zone. The application of a Smart Work Zone was implemented by utilizing Contractor resources including 3<sup>rd</sup> party software and portable ITS equipment. In 2011, the Tollway tested its newly developed in-house Smart Work Zone TIMS application on the Jane Addams Memorial Tollway (I-90) construction projects. The

Tollway evaluated the various benefits and costs of each approach and determined that the most efficient and cost effective method for managing work zones of future construction projects was to expand the utilization of the Tollway owned TIMS software functions which utilize any existing ITS equipment located within the construction limits.

TIMS Software Modernization: Work continues on the modernization of the TIMS central
management software. Modernization and enhancement of the ten year old software is
expected to increase the overall stability and performance of this system which has
grown to communicate with thousands of devices and manage over 500 events every
day. Recoding of the video control and viewing system in Java was to be completed in
2012.

Additional ongoing work in 2012 and beyond are focused on the integration of new ITS devices such as blue tooth traffic speed sensors and portable roadside camera systems, as well as enhancement of key ITS components. Specific major initiatives include the following:

- Continued ITS expansion through small projects and mainstreaming as part of the Ronald Reagan Memorial Tollway (I-88) and Tri-State Tollway (I-294) rehabilitation projects. This will include the deployment of ten wireless queue/count stations, nine Blue Toad units, forty-three additional RTMS units and twenty-three additional CCTV cameras. In addition to providing immediate operational benefits, this deployment will also assist the Tollway to effectively manage 2012 construction projects on the Ronald Reagan Memorial Tollway (I-88) and the Tri-State Tollway (I-294) by building the ITS equipment early in the projects, thereby enhancing the number of sensors and cameras available for use by the 2012 Smart Work Zones.
- NAVTEQ/Traffic.com Revenue Reinvestment: Currently Traffic.com owns, operates, and maintains a network of traffic sensors within the Tollway right-of-way. In exchange for this access, the Tollway receives data generated by these sensors and a portion of the revenue generated by Traffic.com through their sale of traffic and traveler information services. In 2011, the Tollway and Traffic.com developed a plan to expand the sensor network into the remaining areas of the Tollway not covered by the original project and fund it through the reinvestment of revenue generated by the partnership. The Tollway will use these additional data sources to supplement and validate current data sources, enhance data accuracy and timeliness, and ultimately provide better information to Tollway motorists on current travel conditions. Construction was completed in 2012.
- Continue to improve maintenance and management systems with the goals of reducing system downtime. Significant progress has been made towards the implementation of a comprehensive maintenance and management program during the previous two years. Two contracts have been instrumental in this process and its continued progress. The ITS and Fiber Optics Program Management and Support contract has assisted the Tollway in developing maintenance procedures and the management tools to effectively and efficiently implement those procedures. The Traffic and Security Monitoring and Management Systems Maintenance contract has provided the Tollway with hands on repair and replacement services for field equipment and devices. Both of these contracts were renewed in 2012, with the former contract being issued for bid by year end.
- More than half of the communications between the ITS, security and watchdog video devices and CA is still through the original, analog fiber optic communication infrastructure installed in the 1990s. The Tollway began a systemwide construction project in 2012 to migrate all remaining analog video communications to the digital Next

Generation Network. Recent ITS deployments have exclusively utilized the Tollway's Next Generation Network. Full Digital Migration will significantly increase system performance, capacity and reliability while reducing per unit maintenance costs.

#### 2.6 Environmental Initiatives

The Tollway is committed to protecting the environment and implementing green initiatives throughout the Tollway system and construction projects where practical. Recycling and waste reduction is avidly utilized on most construction projects including recycling tires, shingles or waste asphalt surfaces in new HMA pavements or rubblized old PCC in new base materials. The Tollway is also working with Argonne Laboratories to investigate various solar technologies effectiveness in the upper Midwest along with conducting a fuel efficiency/reduction study on District 15 State Police vehicles. Current environmental initiatives throughout the Tollway include:

### **NPDES Inspection and Annual Reporting**

The Tollway has complied with the Storm Water Management Program ILR40 Permit conditions under the Small Municipal Separate Storm Sewer System (MS4), permit number ILR400494. An Annual Inspection of the entire system is completed during the five-year reporting period covered under the February 2009 permit. The Annual Inspection includes data collection for storm sewer base map development, illicit discharge recording and visual dry weather screening for the entire system. The Tollway now has an electronic record keeping system which facilitates documentation of compliance with the ILR40 Permit. Electronic records are kept for new projects started during or after Year 5 of the reporting period covered by the original ILR 400494 permit; these records include erosion control plan reviews, pre-construction minutes, County Soil and Water Conservation District involvement, Notice of Intent forms, any Incidence of Non-Compliances that may be issued, Notice of Termination forms, and Post Construction Punch Lists.

### Systemwide Wetland and Endangered Species Mitigation Coordination and Permitting

The Tollway continued wetland and endangered species mitigation due to impacts resulting from the CRP. Generally these conservation measures have all been implemented but there are regulatory requirements that commit the Tollway to five years of monitoring and management of these sites post construction.

More specifically, these monitoring and management efforts included conservation measures for the state endangered Eastern Massasauga Rattlesnake, wetland mitigation along with the conservation efforts for the federally endangered Hine's emerald dragonfly. The conservation efforts for the Eastern Massasauga Rattlesnake included habitat restoration on Cook County Forest Preserve lands and with the goal of completion in 2013. For wetlands mitigation, wetlands were restored along Spring Creek in Will County. Management and monitoring of that site was completed in 2011 and a final report has been provided to the U.S. Army Corps of Engineers for final signoff of the project. Additionally, the Tollway has a 160 acre wetland mitigation project that it has partnered with IDOT located in North Chicago. The Tollway developed an IGA with IDOT for use of the site by which the DOT allows the Tollway access to the site for its restoration and the wetland mitigation credits that are generated from the site are then shared by the agencies. Work at the North Chicago site commenced in 2010 with the clearing of invasive shrubs and herbaceous plants and the site has responded positively to the clearing efforts as identified in the 2011 Maintenance and Monitoring report. The ongoing Hine's emerald dragonfly research in Cook, DuPage and Will County will continue through 2013. This



first of its kind endeavor involves new rivulet habit creation for the species as well as genetic population research and ongoing larval and adult surveys.

The monitoring and management efforts at these sites are being provided by a combination of consultants, contractors and Universities. Monitoring reports are provided to the regulatory agencies on an annual basis. On-the-ground mitigation locations will be documented and added to the Tollway's GIS system.

### **Fuel Reduction Task Force Support**

Executive Order 11, 2009 set a goal for State agencies to reduce fuel consumption by 10% by December 2010, and petroleum product consumption by 20% by 2012. The Tollway convened a Fuel Reduction Task Force to develop plans for meeting this requirement. The Tollway currently uses 1.5 million gallons of fuel per year and will need to reduce annual mileage by 1.3 million miles. In order to meet the 20% reduction in petroleum product consumption, the Tollway will need to reduce annual mileage by 2.7 million miles. The Fuel Reduction Task Force met quarterly in 2011 to evaluate reduction strategies. The most effective methods were determined and implemented for the various departments. Strategies such as increased use of alternative fuels (including E85), reduced idling, more efficient travel patterns, and incorporation of reduction technologies (such as vehicle governors or Idle Right technology) were implemented.

### **Bioswale Water Quality Improvement Demonstration Project**

The bioswale project is a water quality improvement demonstration technique to treat roadway surface water runoff. Bioswales are open, gently sloping, vegetated channels designed to filter stormwater runoff from the roadway. By slowing and filtering the water, pollutants settle in the bioswale prior to reaching the nearest stream or waterway. The Tollway constructed bioswales on 16 acres of Forest Preserve District Cook County property adjacent to the Tri-State Tollway (I-294).

The bioswale concepts were developed with input from the stakeholder groups consisting of the Forest Preserve staff, federal and state resource agencies, local environmental groups, as well as Tollway staff and consultants. The final stormwater concept included twenty-one bioswales along more than 30,000 linear feet of roadway adjacent to the Forest Preserve.

Final design plans were prepared by further developing the concepts. Modifications were required due to topographic considerations, site specific drainage issues, and constructability. A native plant community scheme was developed but then supplemented with species could better tolerate roadway runoff. Construction of the bioswales was completed in the fall of 2010 and during 2011 the construction contractor conducted year of follow-up maintenance and monitoring of the newly constructed bioswales.

### Green Interchange (I-90 at IL Rt. 47)

The Tollway in partnership with IDOT, the Village of Huntley, Kane and McHenry Counties initiated design efforts for a complete interchange at the Jane Addams Memorial Tollway (I-90) and Illinois Route 47. The Tollway, taking into account lessons learned from the CRP and energy efficiency studies that have been conducted, made the decision to implement various "green" initiatives as part of the project. The final design for the interchange now incorporates stormwater Best Management Practices along with energy efficiency and renewable energy sources including; infiltration detention basins planted with native vegetation for water quality improvements, geothermal heating and cooling systems along with reflective roofing



applications and vegetative trellises all designed to reduce heating and cooling demands of the associated ramp toll plaza buildings. This project and the listed initiatives are included in the Systemwide Access Expansion – Service Interchanges project under Move Illinois described in a following section.

### 2.7 Systemwide Flooding Study

Severe pavement flooding occurred along the Tri-State Tollway (I-294) between Cermak Road and 31st Street on the morning of July 24, 2010. The Consulting Engineer investigated the site and determined that all southbound mainline lanes and the southbound Cermak Road exit ramp were flooded with up to 2.5 feet of standing water. This situation was generally attributable to several factors, including:

- Stormwater runoff leaving the Tollway's jurisdiction into a private drainage system which acted as a bottleneck.
- A low point in the roadway pavement adjacent to a major drainage structure allowed backed up stormwater onto the roadway pavement.
- A stand-pipe drainage structure that was clogged by debris.

Subsequent to this flood event, the Consulting Engineer conducted a survey of the entire Tollway roadway system for locations with similar issues.

The Consulting Engineer studied as-built drawings and interviewed each Maintenance Section Manager to determine which locations exhibit traits with a potential risk of flooding. A field evaluation was then conducted at each of these predetermined locations and documented utilizing the Tollway's GIS database.

During the field evaluations, potential for flooding was ranked based on the following criteria:

- Site geometry including roadway and site grading.
- Presence and condition of drainage structures and surrounding right of way.
- Condition of stormwater runoff receiving stream or destination.
- Determination if stormwater runoff enters another agency's jurisdiction prior to reaching the receiving stream or destination.

Based upon this investigation, one location along the Tri-State Tollway south of Cermak Road at Milepost 29.5 was noted with a high risk of flooding. Recommended improvements were provided to Tollway Engineering.

Additionally, twelve locations were noted with a moderate risk of flooding. Drainage improvement work at these locations has been added to existing contracts and the Maintenance Division has begun to implement minor repairs to decrease the flooding risk at these locations.

The locations noted with a low flood risk either require no improvements or minor repairs that will decrease the flooding risk. The minor repairs have been or will be performed by the Maintenance Division.

Four locations identified as requiring no work to mitigate flooding potential have been included for special inspections as part of the annual visual inspections of the drainage system to monitor to flow conditions within each location.



### 3.0 Move Illinois: The Illinois Tollway Driving the Future

What was envisioned in 1953 as a bypass to route interstate traffic around Chicago has become an integral hub for commerce and commuter travel and a system of roadways critical to the movement of goods, services, and people throughout Northern Illinois. Now, it is time to plan for the future to ensure that our customers have a fully rebuilt, state-of-the-art system that will provide better travel conditions and accommodate the needs of the traveling public well into the 21<sup>st</sup> century.

As required by the Toll Highway Act, the Illinois Tollway developed a comprehensive 15-year capital program to complete the rebuilding of the 52-year old system and commit nearly \$12 billion in transportation funding to improve mobility, relieve congestion, reduce pollution and link economics across Northern Illinois. Move Illinois: The Illinois Tollway Driving the Future, maps out the Illinois Tollway's next capital program for 2012 – 2026.

The new capital program for the Illinois Tollway will create jobs, stimulate local economies and provide the congestion relief customers want and need. The Illinois Tollway is committed to ensuring that this region remains competitive with other major cities in the U.S. and around the world and unlocking the economic potential of the region for years to come.

The program outlined in this report funds necessary improvements to the existing Tollway system. These needs are programmed to be performed at the right time to keep the existing 286 miles in a state of good repair. The projects include:

- Reconstructing and widening the Jane Addams Memorial Tollway (I-90) from the Tri-State Tollway (I-294) near O'Hare Airport to the I-39 interchange in Rockford
- Reconstructing the central Tri-State Tollway (I-294) from 95<sup>th</sup> Street to Balmoral Avenue and the Edens Spur (I-94)
- Preserving the Ronald Reagan Memorial Tollway (I-88)
- Preserving the Veterans Memorial Tollway (I-355)
- Repairing roads, bridges, and maintenance facilities
- Other capital projects

In addition, the program commits money to new priority projects that focus on enhancing regional mobility including:

- Constructing a new interchange at I-294/I-57 and 147<sup>th</sup> Street ramps
- Constructing the Elgin O'Hare Western Access, including completion of the Elgin O'Hare and construction of the West Bypass between I-90 and I-294, and rehabilitation and widening of the existing Elgin O'Hare expressway
- Planning for transit options on the Jane Addams Memorial Tollway (I-90)
- Planning for the Illinois Route 53 Corridor
- Planning for the Illiana Expressway
- Planning for other routes as determined by the Board of Directors

Some of the projects included in the Move Illinois program have been modified from the previous capital program, the Congestion Relief Program (CRP). The current state of the CRP is described in detail in the section 5.0 of this report.

The table below provides the estimated annual program draw required to fund the current Move Illinois program. This table is based upon information provided by the PMO.



Table 11: Move Illinois Program - Estimated Program Draws

Year	Move Illinois Program Estimated Program Draws (Million)
2012	\$113.1
2013	\$702.8
2014	\$1,304.9
2015	\$897.3
2016	\$909.0
2017	\$532.2
2018	\$676.0
2019	\$718.6
2020	\$788.1
2021	\$1,331.0
2022	\$1,459.5
2023	\$851.9
2024	\$851.2
2025	\$533.6
2026	\$480.4
Total	\$12,149.6

### Note:

Move Illinois anticipates contributions between 2014 and 2019 from local, federal and other sources of approximately \$300.0 million for interchanges and access improvements along the Elgin O'Hare Western Access corridor. Credit for such reimbursements is included in the above draws.

### 4.0 Move Illinois Project

The basis for Move Illinois: The Illinois Tollway Driving the Future was a capital needs analysis performed by Tollway staff and consultants that included a comprehensive assessment of the current and future physical and operational characteristics of the entire Tollway system. Previous long-range plans were reevaluated, the needs of communities and stakeholders were catalogued and new technology and transit opportunities were explored.

This evaluation became the foundation of the new capital program, which will provide additional capacity, relieve congestion and meet the needs of the traveling public and the businesses and communities served by the Tollway into the next decade and beyond.

Bond proceeds and Tollway revenues will be used to fund Move Illinois. The following describes the projects that make up the overall Move Illinois project, and so may be funded in whole or in part with bond proceeds. The Tollway's current expectation is to fund the remainder of Move Illinois with revenues and funds on hand.

The Program Management Office (PMO), a consultant to the Tollway, has developed a variety of methods for verifying the accuracy of the various types of estimates. The Consulting Engineer believes that the cost tracking and estimating practices presently used by the PMO for Move Illinois are appropriate.

The Consulting Engineer relied on the PMO to provide the scopes of work and estimates of construction costs. It should be noted that under the Consulting Engineer contract, cost estimating services are provided to the Tollway and are directed by the PMO. The Consulting Engineer provided the PMO with annual costs associated with major maintenance for segments of the system required before reconstruction or rehabilitation projects are implemented. These costs are included in the Systemwide Improvement (described in Section 5.6).

The project construction costs (for projects other than Systemwide Improvements) and durations were developed by the PMO and are predicated on the following basic assumptions:

- 1. Project construction will be in general conformance with past Tollway practices;
- 2. Construction scope and schedule shall be as described below;
- 3. Construction costs are escalated to the mid-point of construction,
- 4. Escalation rate is 5% APR, compounded annually, unless noted otherwise, and
- 5. No unforeseen conditions / circumstances or unusual price escalation not currently identified will occur.

Specific elements of the Move Illinois Program discussed in this report are described in the following sections.

### 4.1 Jane Addams Memorial Tollway (I-90)

### Kennedy Expressway to Elgin Toll Plaza – Reconstruct / Add Lane

Length: 25.0 miles

**Project Description:** Reconstruct & widen from six to eight lanes.

**Project benefits:** 

- Provide congestion relief by expanding the roadway from six to eight lanes.
- Provide median lane and median shoulder widening in each direction.
- Improve safety and mobility throughout the corridor.
- Reduce annual maintenance costs.



Improve ride quality and traffic flow by replacing 50+ year-old pavement.

Upgrade to current standards and operational requirements.

**Construction Period:** 2013-2016

Total Cost (Escalated): \$1,329.2 million

### Elgin Toll Plaza to IL Route 47 - Reconstruct / Add Lane

Length: 7.5 miles

**Project Description:** Reconstruct & widen from four lanes to six lanes.

### **Project benefits:**

- Provide congestion relief by expanding the roadway from four to six lanes.
- Provide median lane and median shoulder widening in each direction.
- Improve safety and mobility throughout the corridor.
- Reduce annual maintenance costs.
- Improve ride quality and traffic flow by replacing 50+ year-old pavement.
- Upgrade to current standards and operational requirements.

Construction Period: 2013-2016
Total Cost (Escalated): \$192.5 million

### IL Route 47 to I-39 – Reconstruct / Add Lane

Length: 29.0 miles

**Project Description:** Reconstruct & widen from four to six lanes.

### **Project benefits:**

- Provide congestion relief by expanding the roadway from four to six lanes.
- Provide median lane and median shoulder widening in each direction.
- Improve safety and mobility throughout the corridor.
- Reduce annual maintenance costs.
- Improve ride quality and traffic flow by replacing 50+ year-old pavement.
- Upgrade to current standards and operational requirements.

Construction Period: 2013-2016
Total Cost (Escalated): \$480.4 million

### Kennedy Expressway to I-39 – Transit Accommodation

Length: 61.5 miles

**Project Description:** Miscellaneous improvements to allow future transit accommodation that are contracted as part of the roadway and bridge reconstruction and widening projects. The costs of median lane widening and median shoulder widening to accommodate transit are included in the section costs above. This widened cross section could be used for future operational improvements.

### **Project benefits:**

- Allows operation of a Bus Rapid Transit (BRT) system (by others)
- Allow for accommodation of rail transit in the future (by others)
- Provides basic infrastructure for lane management of transit and Tollway users

Construction Period: 2013-2016 Total Cost (Escalated): \$42.6 million

### Kennedy Expressway to I-39 – ROW Acquisition

Length: 61.5 miles

**Project Description:** Acquire right-of-way and easements necessary for roadway and bridge reconstruction and widening.

### **Project benefits:**

Allows projects to move forward with optimal design elements



Construction Period: 2012-2014 Total Cost (Escalated): \$18.4 million

### Kennedy Expressway to I-39 – Utility and Fiber Optic Relocation

Length: 61.5 miles

Project Description: Relocate Tollway owned fiber optic and private utilities to accommodate

roadway and bridge reconstruction and widening.

**Project benefits:** 

Allows projects to move forward with optimal design elements

• Maintains Tollway fiber optic continuity

• Modernize utilities crossing Tollway right-of-way as necessary

Construction Period: 2012-2016
Total Cost (Escalated): \$107.6 million

### Kennedy Expressway to I-39 - Other

Length: 61.5 miles

Project Description: Program management efforts for the I-90 corridor and other

miscellaneous unallocated projects.

### **Project benefits:**

 Provides program management to streamline project design and construction throughout the corridor

Additional capital investment necessary to enhance the corridor and individual projects

as necessary

Construction Period: 2013-2016 Total Cost (Escalated): \$162.9 million

### 4.2 Tri-State Tollway (I-94/I-294/I-80)

### 95<sup>th</sup> Street to Balmoral Avenue – Reconstruct

Length: 22.3 miles

**Project Description:** Reconstruct existing eight lanes of pavement.

**Project benefits:** 

- Improve ride quality and traffic flow by replacing 50+ year-old pavement
- Reduce annual maintenance costs
- Upgrade to current standards and operational requirements

Construction Period: 2020-2023

Total Cost (Escalated): \$1,940.5 million

### **Edens Spur – Reconstruct**

Length: 5.0 miles

**Project Description:** Reconstruct existing four lanes of pavement.

**Project benefits:** 

Improve ride quality and traffic flow by replacing 50+ year-old pavement

Reduce annual maintenance costs

Upgrade to current standards and operational requirements

Construction Period: 2020-2021
Total Cost (Escalated): \$152.8 million

### Bishop Ford Expressway to Russell Road - Bridge and Ramp Repairs

Length: 78.0 miles

**Project Description:** Reconstruct or rehabilitate crossroad bridges and ramps.

**Project benefits:** 



• Upgrade to current standards and operational requirements

- Preserve and maintain the crossroad structures and ramps
- Reduce maintenance costs

Construction Period: 2012-2016 Total Cost (Escalated): \$19.7 million

### Bishop Ford Expressway to Russell Road - ROW Acquisition

Length: 78.0 miles

Project Description: As necessary during reconstruction or repair projects, will provide right-of-

way and easements for improvements.

**Project benefits:** 

• Allows projects to move forward with optimal design elements

Construction Period: 2013-2014
Total Cost (Escalated): \$3.0 million

### Bishop Ford Expressway to Russell Road – Utility and Fiber Optic Relocation

Length: 78.0 miles

Project Description: As necessary during reconstruction or repair projects, will provide

relocation of fiber optic and private utilities for improvements.

**Project benefits:** 

• Allows projects to move forward with optimal design elements

Maintains Tollway fiber optic continuity

Modernizes utilities crossing Tollway right-of-way as necessary

Construction Period: 2019-2021 Total Cost (Escalated): \$6.0 million

### 4.3 Veterans Memorial Tollway (I-355)

# <u>I-55 to Boughton Road, Collector-Distributor Roads, North Avenue to Army Trail Road – Mill, Patch, and Overlay</u>

Length: 17.5 miles

**Project Description:** Rehabilitate remaining original (1992) I-355 pavement between I-55 and Army Trail Road. Add safety improvements throughout.

**Project benefits:** 

Preserve and maintain the existing pavement

Improve ride quality and traffic flow

Reduce annual maintenance costs

Upgrade to current standards and operational requirements

**Construction Period: 2013** 

Total Cost (Escalated): \$21.9 million

### I-55 to Army Trail Road – Mill, Patch, and Overlay

Length: 17.5 miles

Project Description: Second rehabilitation of the original I-355 pavement between I-55 and

Army Trail Road.

Project benefits:

Preserve and maintain the existing pavement

• Improve ride quality and traffic flow

Reduce annual maintenance costs

Upgrade to current standards and operational requirements

Construction Period: 2018-2019



Total Cost (Escalated): \$189.1 million

### I-80 to Army Trail Road - Bridge and Ramp Repairs

Length: 30.0 miles

**Project Description:** Reconstruct or rehabilitate crossroad bridges and ramps.

**Project benefits:** 

Upgrade to current standards and operational requirements

- Preserve and maintain the crossroad structures and ramps
- Reduce maintenance costs
   Construction Period: 2025-2026
   Total Cost (Escalated): \$290.0 million

### I-80 to Army Trail Road - ROW Acquisition

Length: 30.0 miles

Project Description: As necessary during reconstruction or repair projects, will provide right-of-

way and easements for improvements.

**Project benefits:** 

Allows projects to move forward with optimal design elements

Construction Period: 2013-2014
Total Cost (Escalated): \$0.5 million

### I-80 to Army Trail Road - Utility and Fiber Optic Relocation

Length: 30.0 miles

Project Description: As necessary during reconstruction or repair projects, will provide

relocation of fiber optic and private utilities for improvements.

**Project benefits:** 

- Allows projects to move forward with optimal design elements
- Maintains Tollway fiber optic continuity
- Modernizes utilities crossing Tollway right-of-way as necessary

Construction Period: 2013-2016
Total Cost (Escalated): \$2.0 million

#### 4.4 Ronald Reagan Memorial Tollway (I-88)

### York Road to I-290 - Reconstruct

Length: 1.5 miles

**Project Description:** Reconstruct existing four and six lanes of pavement.

**Project benefits:** 

- Improve ride quality and traffic flow by replacing 50+ year-old pavement
- Reduce annual maintenance costs
- Upgrade to current standards and operational requirements

Construction Period: 2018-2019 Total Cost (Escalated): \$39.8 million

### East-West Connector Road Between I-294 and I-88 – Reconstruct

Length: 3.7 miles

**Project Description:** Reconstruct existing four lanes of pavement.

**Project benefits:** 

- Improve ride quality and traffic flow by replacing 50+ year-old pavement
- Reduce annual maintenance costs
- Upgrade to current standards and operational requirements



Construction Period: 2018-2019 Total Cost (Escalated): \$39.8 million

### IL Route 251 to IL Route 56 - Mill, Patch, and Overlay

Length: 38.1 miles

**Project Description:** Rehabilitate existing four lanes of pavement.

**Project benefits:** 

• Preserve and maintain existing pavement

- Improve ride quality and traffic flow
- Reduce annual maintenance costs

• Upgrade to current standards and operational requirements

Construction Period: 2018-2019
Total Cost (Escalated): \$186.4 million

### Aurora Toll Plaza to IL Route 59 – Mill, Patch, and Overlay

Length: 5.5 miles

**Project Description:** Rehabilitate existing six lanes of pavement.

**Project benefits:** 

- Preserve and maintain existing pavement
- Improve ride quality and traffic flow
- Reduce annual maintenance costs
- Upgrade to current standards and operational requirements

Construction Period: 2018-2019 Total Cost (Escalated): \$42.1 million

### U.S. Route 30 to I-290 - Bridge and Ramp Repairs

Length: 96.5 miles

**Project Description:** Reconstruct or rehabilitate crossroad bridges and ramps.

**Project benefits:** 

- Upgrade to current standards and operational requirements
- Preserve and maintain the crossroad structures and ramps
- Reduce maintenance costs
   Construction Period: 2013-2020

Total Cost (Escalated): \$69.2 million

### U.S. Route 30 to I-290 - ROW Acquisition

Length: 96.5 miles

**Project Description:** As necessary during reconstruction or repair projects, will provide right-of-way and easements for improvements.

Project benefits:

Allows projects to move forward with optimal design elements

Construction Period: 2017-2018
Total Cost (Escalated): \$1.2 million

### U.S. Route 30 to I-290 – Utility and Fiber Optic Relocation

Length: 96.5 miles

**Project Description:** As necessary during reconstruction or repair projects, will provide relocation of fiber optic and private utilities for improvements.

**Project benefits:** 

- Allows projects to move forward with optimal design elements
- Maintains Tollway fiber optic continuity



Modernizes utilities crossing Tollway right-of-way as necessary

Construction Period: 2013-2017 Total Cost (Escalated): \$3.0 million

### 4.5 Systemwide Maintenance Facilities

### Maintenance Facilities – Reconstruct / Relocate / Rehabilitate

### Locations:

- M-1 (Alsip) Reconstruct
- M-3 (Park Ridge) Reconstruct
- M-4 (Gurnee) Reconstruct / Relocate
- M-5 (Schaumburg) Reconstruct
- M-6 (Marengo) Reconstruct
- M-7 (Rockford) Reconstruct
- M-8 (Naperville) Reconstruct / Relocate
- M-11 (DeKalb) Rehabilitate
- M-12 (Dixon) Rehabilitate

Project Description: Reconstruct, relocate or rehabilitate aging maintenance facilities.

### **Project benefits:**

- Optimize maintenance operations to meet expanded system needs
- Reduce annual facilities maintenance costs

Construction Period: 2013-2026
Total Cost (Escalated): \$496.7 million

### 4.6 Systemwide Improvements

### Infrastructure Renewal - Bridge, Pavement, Drainage and Safety Appurtenance Repairs

Length: N/A

**Project Description:** Annual Bridge, pavement, drainage & safety appurtenance repairs and upgrades which are not included in the major corridor improvements.

#### **Project benefits:**

- Preserve and maintain existing infrastructure
- Upgrade to current standards and operational requirements

Construction Period: 2012-2026 Total Cost (Escalated): \$716.3 million

### Infrastructure Enhancements – Business Systems and Toll Collection Upgrades

Length: N/A

**Project Description:** Business System and Information Technology upgrades, including toll collection systems and related software to keep pace with and incorporate best practices **Project benefits:** 

Optimize all toll collection operations

Construction Period: 2013-2026 Total Cost (Escalated): \$190.0 million

### <u>Infrastructure Enhancements – IT and Intelligent Transportation Systems (ITS) Upgrades</u>

Length: N/A

**Project Description:** Intelligent Transportation Systems (ITS) upgrades, including communications tower replacements, and related software to keep pace with and incorporate best practices

### **Project benefits:**

Ensure reliability of communication network

• Improve traffic and incident management

Construction Period: 2012-2026 Total Cost (Escalated): \$168.7 million

### Maintenance and Operations Support - Capital Requirements

Length: N/A

**Project Description:** Annual Miscellaneous capital expenditures including transponders, vehicles, computers, and other items that are critical to the Illinois Tollway's day-to-day operations.

### **Project benefits:**

• Maintain the state-of-good-repair

Modernize the current systems

Construction Period: 2017-2026 Total Cost (Escalated): \$904.5 million

### <u>Access Expansion – Service Interchanges</u>

Length: N/A

**Project Description:** Source of matching funds for construction of two service interchanges in accordance with the Illinois Tollway interchange Policy.

### **Project benefits:**

Construct interchanges on the existing system.

Provide economic benefit to the region

Construction Period: 2012-2020

**Total Cost (Escalated):** \$94.5 million (Tollway Commitment)

### <u>Toll Collection Upgrades – Plaza Modifications for Electronic Tolling Upgrades</u>

Lenath: N/A

**Project Description:** Implement mainline and ramp plaza modifications to accommodate electronic toll collection upgrades.

### **Project benefits:**

- Reduce operational and maintenance costs
- Reduce environmental impacts
- Improve operational efficiency

Construction Period: 2017-2018
Total Cost (Escalated): \$276.8 million

#### **Program Support**

Length: N/A

**Project Description:** Program management, project management, technical and administrative service contracts.

# **Project benefits:**

 Program management to execute projects efficiently and to manage budget and schedule

Construction Period: 2012-2026
Total Cost (Escalated): \$142.7 million

### 4.7 I-294 / I-57 Interchange

### Tri-State Tollway (I-294) / I-57 Interchange – New Ramps, Structures and Toll Plazas

Length: N/A

**Project Description:** Construct the new system interchange at I-294 and I-57, as well as the 147th Street ramps.



### **Project benefits:**

• Provide economic benefit to the region.

• Add access between two major interstates.

Construction Period: 2012-2014

**Total Cost (Escalated):** \$219.0 million (Tollway Commitment)

### <u>Tri-State Tollway (I-294) / I-57 Interchange – New Ramps and Structures</u>

Length: N/A

**Project Description:** Construct new ramps to complete system interchange at I-294 and I-57.

**Project benefits:** 

Provide economic benefit to the region.

Add access between two major interstates.

Construction Period: 2023-2024

**Total Cost (Escalated):** \$323.9 million (Tollway Commitment)

### Tri-State Tollway (I-294) / I-57 Interchange - ROW Acquisition

Length: N/A

Project Description: Acquire right-of-way and easements necessary for roadway and bridge

reconstruction and widening.

**Project benefits:** 

Allows project to move forward with optimal design elements

Construction Period: 2013-2018
Total Cost (Escalated): \$12.0 million

### <u>Tri-State Tollway (I-294) / I-57 Interchange – Utility and Fiber Optic Relocation</u>

Length: N/A

Project Description: Relocate Tollway owned fiber optic and private utilities to accommodate

roadway and bridge reconstruction and widening.

**Project benefits:** 

- Allows projects to move forward with optimal design elements
- Maintains Tollway fiber optic continuity
- Modernizes utilities crossing Tollway right-of-way as necessary

Construction Period: 2013-2024 Total Cost (Escalated): \$40.0 million

#### 4.8 Elgin O'Hare / Western Access

### Elgin O'Hare Western Access Project

Since the initial approval of the Move Illinois Program, the Tollway and its consultants have continued to refine the delivery of the EOWA project along with partners including IDOT, DuPage County and municipalities. The overall scope of the project is unchanged, but the project is currently estimated based upon the overall delivery, and not the individual component sections, where there are numerous overlapping segments and interchanges.

The Elgin O'Hare Western Access Project includes construction of a new, all-electronic toll road around the western border of O'Hare International Airport linking the Jane Addams Memorial Tollway (I-90) and the Tri-State Tollway (I-294), the extension of the Elgin O'Hare Expressway east along Thorndale Avenue to O'Hare and the rehabilitation and widening of the existing Elgin O'Hare Expressway. The 2013-2026 construction plan is broadly supported by local governments and represents a fiscally responsible approach to address the area's diverse travel needs — improving travel efficiency, providing western access to O'Hare, enhancing multi-



modal connections and reducing congestion.

#### Work includes:

- Repairs to existing Elgin O'Hare Expressway from US 20 to IL 53
- Widening of the existing Elgin O'Hare Expressway between IL 19 and IL 53
- Construction of new four lane (with auxiliary lanes) facility from west of IL 53 to IL 83
- Construction of a new four lane facility from the extension of the Elgin O'Hare with I-90 to the north and I-294 to the south
- Toll collection infrastructure for the entire EOWA.

The project is currently identified by the six phases of work necessary for implementation:

Construction – Work required to construct the project.

Construction Management – Services retained by the Illinois Tollway typically including inspection and documentation of construction work performed by contractors to ensure that the contractor meets the terms of the contract plans and specifications.

*DCM* – Design Corridor Manager: a consultant that serves in an overarching role to manage multiple designers within a corridor.

*CCM* – Construction Corridor Manger: a consultant that serves in an overarching role to oversee the work of multiple construction managers within a corridor.

*Design* – Professional services utilized for the preparation the design documents.

ROW (Right-of-Way) - Land, property, or interests therein, acquired for or devoted to a highway.

*Utility* – The privately, publicly or cooperatively owned lines, facilities, and systems for transporting persons or property, for producing, transmitting or distributing communications data, telemetry, electric power, light, heat, gas, oil, crude products, water, steam, waste, sewerage, storm water not connected with highway drainage, and other similar commodities.

### **Project benefits:**

- Provide economic benefit to the region.
- Improve travel efficiency reduce congestion on the local street network.
- Provide access to the west side of O'Hare Airport.
- Facilitate multimodal opportunities.

#### Construction Period: 2013-2026

- Segment One Existing Elgin O'Hare Expressway (US Route 20 to IL 53/Rohlwing Road) – 2013-2017
- Segment Two Elgin O'Hare Western Access (IL 53/Rohlwing Road to IL 83/York Road)
   2014-2019
- Segment Three Elgin O'Hare Western Access Elgin O'Hare to I-294 2018-2026
- Segment Four Elgin O'Hare Western Access Elgin O'Hare to I-90 2018-2026



Total Cost (Escalated): \$3,400.0 million Construction: \$2,399.5 million

Construction Management: \$194.9 million

DCM/CCM: \$158.9 million Design: \$151.4 million ROW: \$336.2 million Utility: \$159.0 million

Note: Move Illinois anticipates local contributions of approximately \$300.0 million for interchanges and access improvements along the Elgin O'Hare Western Access corridor. Credit for such reimbursements is not considered in the above totals.

### 4.9 IL Route 53 Extension / Illiana Expressway / Miscellaneous Studies

### IL Route 53 Extension / Illiana Expressway / Miscellaneous Studies - New Routes

Length: N/A

**Project Description:** Planning studies for the extension of IL Route 53 from Lake-Cook Road north into Lake County, for the Illiana Expressway from the Illinois/Indiana state line west to I-80, and for other routes as determined by the Board of Directors.

**Project benefits:** 

• Study and preparation of planning studies including Environmental Impact Statements.

Construction Period: N/A

Total Cost (Escalated): \$124.1 million

### 4.10 System Growth

Based upon the described improvements, specifically the projects that increase capacity on the mainline, add interchange ramps and add mainline elements, the total lane-mile system is expected to grow by 16.9% from 2012 through 2026. This includes one project included in the CRP that was completed in 2012. The following table depicts how the Tollway system will grow throughout the implementation of the Move Illinois Program. All lanes (mainline, auxiliary, ramps and toll plaza – manual lanes) are included.

The basis of these values was a comprehensive survey by the consulting engineer and Tollway staff to use GPS to record the entire system. These surveys were completed in 2009 and 2010. Ongoing inspections, including in 2012, have continued to refine the information. As project plans for the Elgin O'Hare Western Access and other projects that will add lane-miles are progressed in design, and ultimately constructed, these values may change in future versions of this and/or other reports.



Tollway Route	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027-
Tri-State Mainline	669.4	669.4	669.4	669.4	669.4	669.4	669.4	669.4	669.4	669.4	669.4	669.4	669.4	669.4	669.4	669.4
Tri-State Ramps and Plaza Lanes	117.1	117.1	117.1	123.1	123.1	123.1	123.1	123.1	123.1	123.1	123.1	126.1	134.1	134.1	134.1	134.1
Jane Addams Memorial Mainline	402.2	402.2	402.2	402.2	402.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2
Jane Addams Memorial Ramps and Plaza Lanes	68.1	68.1	69.6	69.6	69.6	72.1	72.1	72.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1
Ronald Reagan Memorial Mainline	472.0	473.4	473.4	473.4	473.4	473.4	473.4	473.4	473.4	473.4	473.4	473.4	473.4	473.4	473.4	473.4
Ronald Reagan Memorial Ramps and Plaza Lanes	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
Veterans Memorial Mainline	197.9	197.9	197.9	197.9	197.9	197.9	197.9	197.9	197.9	197.9	197.9	197.9	197.9	197.9	197.9	197.9
Veterans Memorial Ramps and Plaza Lanes	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6
Elgin O'Hare / Western Access Mainline	0.0	0.0	0.0	0.0	0.0	43.8	43.8	64.5	64.5	64.5	64.5	64.5	64.5	64.5	91.8	91.8
Elgin O'Hare / Western Access Ramps	0.0	0.0	0.0	0.0	0.0	48.1	48.1	65.9	65.9	65.9	65.9	65.9	65.9	65.9	106.0	106.0
Total lane Miles	2046.4	2047.8	2049.3	2055.3	2055.3	2272.8	2272.8	2311.2	2313.2	2313.2	2313.2	2316.2	2324.2	2324.2	2391.6	2391.6
% Increase - Annual	0.0%	0.1%	0.1%	0.3%	0.0%	10.6%	0.0%	1.7%	0.1%	0.0%	0.0%	0.1%	0.3%	0.0%	2.9%	0.0%
% Increase - Aggregate	-	0.1%	0.1%	0.4%	0.4%	11.1%	11.1%	12.9%	13.0%	13.0%	13.0%	13.2%	13.6%	13.6%	16.9%	16.9%

### 5.0 Congestion Relief Program – "Open Roads for a Faster Future"

In September 2004, the Illinois Tollway approved a comprehensive plan to modernize and rebuild the 45-year old (in 2004) system of roadways to reduce congestion and improve service for its customers. The Congestion Relief Program (CRP) – Open Roads for a Faster Future – included rebuilding and restoring nearly all of the Tollway system, providing congestion relief by converting mainline toll plazas to barrier-free open road tolling, widening many miles of existing roads, and extending I-355 12.5 miles south from I-55 to I-80 in Will County.

Throughout the eight-year duration of the program, the Tollway has delivered numerous improvements:

- Customers have realized the time-saving benefits of open road tolling at all 22 mainline plazas completed in less than 22 months.
- Customers have benefited from a newly rebuilt and widened South Tri-State Tollway (I-294/I-80) from IL Route 394 to 95<sup>th</sup> Street, and on the North Tri-State Tollway (I-294/I-94) from Balmoral Avenue to Russell Road.
- The Ronald Reagan Memorial Tollway (I-88) has been widened and reconstructed from York Road to IL Route 59 and from the Aurora Toll Plaza to Deerpath Road. The section of I-88 from US Route 30 to IL Route 251 was rubblized to make the existing pavement a base to support new full depth asphalt pavement.
- The section of the Jane Addams Memorial Tollway (I-90) from the Cherry Valley Interchange to Rockton Road was reconstructed and widened with full depth asphalt pavement. These improvements included a reconfigured interchange at I-90 and I-39, and the removal of the Cherry Valley Toll Plaza.
- Completion of the 12.5 mile extension of the Veterans Memorial Tollway (I-355).
   Additionally, a four-mile section of I-355 from 75<sup>th</sup> Street to I-88 was widened and resurfaced.

All of these improvements represent more than 118 miles of reconstructed roadways, modernized tolling facilities, and capacity and operational enhancements. Other sections of the Tollway have also undergone rehabilitation and resurfacing to bring the 286-mile system into a state of good repair.

At the end of 2012, the CRP was over 87% complete. Some of the projects included in the previous plan for the Jane Addams Memorial Tollway have been modified and are now included within the reconstruction and widening projects identified within the Move Illinois program.

The tables below summarize the projects that make up the CRP.

 Table 13:
 Congestion-Relief Program - Summary of Work

# Tri-State Tollway (I-94/I-294/I-80)

Need	Project	Scope	Length (miles)	Construction Period	Total Cost (millions)	Construction Status
Reconstruct / Congestion Relief	Reconstruct / Add Lane	I-394 to 167 <sup>th</sup> Street (MP 0.0 to 5.4)	5.4	2005-2006	\$277.8	Complete
Reconstruct / Congestion Relief	Reconstruct / Add Lane	159 <sup>th</sup> Street to 95 <sup>th</sup> Street (MP 6.3 to 17.6)	12.2	2007-2009	\$425.1	Complete
Reconstruct / Congestion Relief	Reconstruct / Add Lane	Balmoral Avenue to Dempster Street (MP 40.2 to 44.5)	4.3	2006-2009	\$310.2	Complete
Reconstruct / Congestion Relief	Reconstruct / Add Lane	Dempster Street to Lake Cook Road (MP 44.5 to 52.9)	8.4	2007-2010	\$290.8	Complete
Reconstruct / Congestion Relief	Reconstruct / Add Lane	Half Day Road to IL Route 137 (MP 56.5 to 64.4)	7.9	2007-2009	\$230.4	Complete
Reconstruct / Congestion Relief	Reconstruct / Add Lane	IL Route 137 to Russell Road (MP 64.4 to 78.5)	14.1	2007-2009	\$257.6	Complete
Resurface	Diamond Grind	Edens Spur to Half Day Road (MP 53.0 to 56.5)	3.5	2012-2013	\$5.6	Under Construction
Rehabilitate / Resurface	Rehabilitate / Resurface	95 <sup>th</sup> Street to Balmoral Avenue (MP 17.6 to 40.2)	22.3	2012-2013	\$107.0	Under Construction
Rehabilitate / Resurface	Rehabilitate / Resurface	Edens Spur (MP 25.0 to 30.0)	5.0	2010-2011	\$16.7	Complete
Regional Growth	Interchange Improvement	I-294 / I-57 Interchange Inter-Agency Project	-	2012-2013	\$44.7	Partial Project Funding Remains in CRP

### Jane Addams Memorial Tollway (I-90)

Need	Project	Scope	Length (miles)	Construction Period	Total Cost (millions)	Construction Status
Reconstruct / Congestion Relief	Interchange Improvement	IL Route 39 / I-90 Interchange (MP 17.5)	-	2008-2009	\$68.4	Complete
Reconstruct / Congestion Relief	Reconstruct / Add Lane	Newburg Road to Rockton Road (MP 2.7 to 17.0)	14.3	2008-2009	\$202.4	Complete
Reconstruct / Congestion Relief – Portion of Overall Reconstruction Effort	Reconstruct / Add Lane	Kennedy Expressway to IL Route 53 (MP 68.0 to 78.9)	10.9	2015-2016	\$57.5*	Previous resurfacing eliminated due to planned reconstruction. These projects constitute a portion of the overall efforts for reconstruction of this segment.
Rehabilitate / Resurface and Reconstruct / Congestion Relief – Portion of Overall Reconstruction Effort	Rehabilitate / Resurface and Reconstruct / Add Lane	IL Route 53 to Elgin Toll Plaza (MP 54.4 to 68.0)	14.4	2011 (Partial Resurfacing) 2015-2016 (Reconstruction and Widening)	\$90.5*	A portion of the previous resurfacing was eliminated due to planned reconstruction. Resurfacing occurred between Barrington Road and Elgin Toll Plaza. Remaining funds constitute a portion of the overall efforts for reconstruction of this segment.
Reconstruct / Congestion Relief – Portion of Overall Reconstruction Effort	Reconstruct / Add Lane	Elgin Toll Plaza to Sandwald Road (MP 45.0 to 54.4)	9.4	2015-2016	\$59.5*	Previous resurfacing eliminated due to planned reconstruction. These projects constitute a portion of the overall efforts for reconstruction of this segment
Rehabilitate / Resurface and Reconstruct / Congestion Relief – Portion of Overall Reconstruction Effort	Rehabilitate / Resurface and Reconstruct / Add Lane	Sandwald Road to Newburg Road (MP 29.2 to 45.0)	27.9	2011 (Partial Resurfacing) 2015-2016 (Reconstruction and Widening)	\$104.2*	Portions of the previous resurfacing were eliminated due to planned reconstruction. Resurfacing occurred between Shattuck Road and Genoa Road. Remaining funds constitute a portion of the overall efforts for reconstruction of this segment.
Regional Growth	Interchange Improvement	East Riverside Interchange Inter-Agency Project*	-	2008-2009	\$9.1 - Tollway Contribution	Complete
Reconstruct / Congestion Relief	Design for Reconstruct / Add Lane	Kennedy Expressway to Newburg Road – Design Only (MP 17.0 to 78.9)	-	2006-2013	\$14.7	Partial. Remaining design efforts are included within reconstruction and widening projects.

<sup>\*</sup> Approximately \$190 million of remaining CRP funds for I-90 will be utilized as part of Jane Addams Memorial Tollway reconstruction and widening projects.



### Ronald Reagan Memorial Tollway (I-88)

Need	Project	Scope	Length (miles)	Construction Period	Total Cost (millions)	Construction Status
Reconstruct / Congestion Relief	Reconstruct / Add Lane	York Road to IL Route 83 (MP 137.0 to 139.2)	2.2	2007-2009	\$174.7	Complete
Reconstruct / Congestion Relief	Reconstruct / Add Lane	IL Route 83 to Finley Road (MP 131.9 to 137.0)	5.1	2008-2009	\$94.0	Complete
Reconstruct / Congestion Relief	Reconstruct / Add Lane	Finley Road to Washington Street (MP 126.5 to 132.2)	5.7	2006-2009	\$217.4	Complete
Reconstruct / Congestion Relief	Reconstruct / Add Lane	Washington Street to IL Route 59 (MP 122.9 to 126.5)	3.6	2004-2005	\$45.9	Complete
Reconstruct / Congestion Relief	Reconstruct / Add Lane	Aurora Toll Plaza to Deerpath (MP 114.3 to 117.5)	3.2	2007-2009	\$133.6	Complete
Reconstruct / Congestion Relief	Reconstruct / Add Lane	Deerpath to IL Route 56 (MP 113.3 to 114.3)	0.7	2012	\$11.8	Substantially Complete
Reconstruct	Rubblize / Resurface	IL Route 251 to US Route 30 (MP 44.2 to 76.2)	32.0	2005	\$47.6	Complete
Resurface	Resurface	Deerpath to IL Route 251 (MP 76.2 to 114.3)	38.1	2012	\$62.8	Substantially Complete
Resurface	Resurface	IL Route 251 to US Route 30 (MP 44.2 to 76.2)	32.0	2015-2016	\$152.0	To be Completed

## **Veterans Memorial Tollway (I-355)**

Need	Project	Scope	Length (miles)	Construction Period	Total Cost (millions)	Construction Status
Resurface / Congestion Relief		75 <sup>th</sup> Street to I-88 (MP 15.5 to 20.0)	4.5	2008-2009	\$73.5	Complete
Rehabilitate / Resurface	Rehabilitate / Resurface	I-55 to Army Trail Road (MP 12.3-15.5 & 20.0-29.8)	13.0	2010	\$56.3	Complete
Regional Growth	South Extension	South Extension (I-55 to I-80)	12.5	2005-2007	\$718.6	Complete

# **Open Road Tolling**

Need	Project	Scope	Length (miles)	Construction Period	Total Cost (millions)	Construction Status
Reconstruct / Congestion Relief	IReconstruct	Mainline Reconstruct / Cash Lane Modifications	0.0	2005-2007	\$715.7	Complete



### **Systemwide Improvements**

Need	Project	Scope	Length (miles)	Construction Period	Total Cost (millions)	Construction Status
Reconstruct / Rehabilitate Bridges	Bridge Improvements	Bridge Improvements	Systemwide	2005-2016	\$169.5	Ongoing
Reconstruct / Rehabilitate Plazas	Plaza Improvements	Plaza Improvements	Systemwide	2005-2012	\$14.2	Complete
Interchange Improvements		Interchange Improvements	Systemwide	2005-2016	\$100.2	Ongoing
	Environmental / Program Mgmt & Miscellaneous	Systemwide	Systemwide	2005-2016	\$153.3	Ongoing
Reconstruct / Rehabilitate Pavements		Pavement Improvements	Systemwide	2005-2016	\$209.3	Ongoing

### **Budgetary Reserve Fund**

Need	Project	Scope	Length (miles)	Construction Period	Total Funds (millions)	Construction Status
Miscellaneous	Various	Projects formally closed with excess funding formally allocated to the Budgetary Reserve Fund	N/A	2013-2016	\$52.5	Ongoing
Miscellaneous	Various	Projects anticipated to be closed with an estimated amount of excess funding intended to be allocated to the Budgetary Reserve Fund	N/A	2013-2016	\$52.2	Ongoing

No additional bond issue requests are required for the completion of the CRP, as revenue resources will be utilized.

The table below summarizes the annual funds required to complete the CRP projects. This table is based on information provided by the PMO.

Table 14: Congestion-Relief Program - Estimated Program Draws

Year	Congestion-Relief Program Estimated Program Draws (Million)
2005-2011	\$4,822.8
2012	\$208.5
2013	\$119.1
2014	\$119.5
2015	\$407.8
2016	\$149.8
Total	\$5,827.5

### Notes:

This table is based upon information provided by the PMO, which may vary slightly from internal Tollway information, with variation for the aggregate draws of 2005 through 2011 being less than 0.2%.

The CRP anticipates state and local reimbursements of approximately \$98.7 million, \$86.6 million of which have been received to date and \$12.1 million of which are anticipated to be received from 2013-2016. Credit for such reimbursements is not included in the above draws. Please note that the values may not add to the CRP total due to rounding.

### 6.0 Estimated Renewal and Replacement Deposits

Section 204(1)(4) of the Indenture, provides that the Consulting Engineer shall provide estimates of Renewal and Replacement Deposits. The Renewal and Replacement Deposit is the "amount budgeted for deposit to or projected for deposit to the Renewal and Replacement Account for Renewal and Replacement Expenses, other than such budgeted or projected amounts which the Authority has determined will be available for Renewal and Replacement Expenses from the System Reserve Fund, the Improvement Fund, or from the proceeds of authorized borrowings or from installment purchases or leases."

The table below, provides estimates of Renewal and Replacement Deposits for each of the fiscal years 2013 through 2031. The **Renewal and Replacement** Deposits are based upon the following information provided to the Consulting Engineer prior to the issuance of this report:

- Estimated capital expenditures of \$796.2 million for the execution of the remainder of the Congestion-Relief Program described in Section 5.
- Estimated capital expenditures of \$12,149.7 million for the execution of Move Illinois Program described in Sections 3 and 4,
- Estimated non-roadway capital costs totaling \$252.0 million during 2012 through 2016
- The finance plan provided to the Consulting Engineer by the Tollway, which anticipates that the remainder of the Congestion-Relief Program will be funded entirely with Tollway Revenue.
- The finance plan provided to the Consulting Engineer by the Tollway, which currently anticipates that the Move Illinois Program will be paid for with approximately \$5.0 billion of bond proceeds and approximately \$7.15 billion of Tollway revenue,
- Projects within Move Illinois will be funded with a combination of Tollway revenues and bond proceeds. The below deposits consist of revenue funds to be used for Renewal and Replacement expenditures.

Estimated Renewal and Replacement Deposits will fund portions of both the CRP and Move Illinois programs, as well as items included in the non-roadway capital needs. The Trust Indenture requires projections for five years beyond the "in-service" date of the project.

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Table 15: Estimated Annual Renewal and Replacement Deposits

V	D
Year	Renewal and Replacement Deposits
2013	\$200,000,000
2014	\$250,000,000
2015	\$250,000,000
2016	\$250,000,000
2017	\$300,000,000
2018	\$350,000,000
2019	\$425,000,000
2020	\$425,000,000
2021	\$425,000,000
2022	\$425,000,000
2023	\$350,000,000
2024	\$300,000,000
2025	\$350,000,000
2026	\$450,000,000
2027	\$300,000,000
2028	\$300,000,000
2029	\$300,000,000
2030	\$300,000,000
2031	\$300,000,000

### 7.0 Operating Expenses

Operating Expenses are the expenses that the Tollway will incur in the normal course of business for operation, maintenance and repairs of the Tollway System. The debt service payments that the Tollway makes on regular cycles for bond obligations are not discussed in this report.

#### 7.1 Historic Expenses

In 2011 and 2012, the Tollway's organizational structure consisted of 14 primary functions including: Administration, Business Systems (formerly Open Toad Tolling / Violations Enforcement). Communications, Diversity & Strategic Development, Engineering, Executive/Board of Directors. Finance. Information Technology, Inspector General (Investigations), Internal Audit, Legal, Procurement, Illinois State Police, and Toll Operations. The following table identifies by primary function, the unaudited Operating Expenses for the Tollway in 2012, provided in March 2013, as well as the 2011 audited expenses. The total 2011 expenditures represent a reduction of over 3.4% from the original 2011 budget and a 1.7% decrease compared to the 2010 actual expenditures. The 2012 unaudited expenditures reflect a reduction of over 5.6% from the 2012 original budget and only an increase of 3.1% over the audited expenses from 2011.

Table 16: 2011 and 2012 Operating Expenses by Tollway Primary Function

Department	2011 Audited Expenditures	2012 Unaudited Expenditures
Administration	\$3,763,388 / 1.5%	\$3,528,463 / 1.4%
Business Systems	\$41,722,039 / 17.0%	\$47,647,530 / 18.8%
Communications	\$1,094,602 / 0.4%	\$1,206,310 / 0.5%
Diversity & Strategic Development	\$432,347 / 0.2%	\$537,137 / 0.2%
Engineering	\$63,343,716 / 25.8%	\$61,889,199 / 24.5%
Executive/Board of Directors	\$1,284,423 / 0.5%	\$1,362,341 / 0.5%
Finance	\$36,288,909 / 14.8%	\$40,148,461 / 15.9%
Information Technology	\$10,303,986 / 4.2%	\$8,524,118 / 3.4%
Inspector General	\$601,153 / 0.2%	\$696,455 / 0.3%
Internal Audit	\$830,252 / 0.3%	\$934,482 / 0.4%
Legal	\$1,547,077 / 0.6%	\$1,448,731 / 0.6%
Procurement	\$3,793,064 / 1.5%	\$3,699,914 / 1.5%
State Police	\$26,687,122 / 10.8%	\$27,986,543 / 11.1%
Toll Operations	\$54,282,427 / 22.1%	\$53,449,515 / 21.1%
Total	\$245,974,505	\$253,059,198

The existing Tollway system to be maintained and operated includes 286 miles of limited access highways featuring a toll collection system incorporating mainline plazas and ramp plazas with the combined use of I-PASS, automatic coin collection and manual lanes. The system has been expanded to include the 12.5 mile extension of the Veterans Memorial Tollway; the widening of existing routes; and the construction of additional interchanges, all as part of the CRP. Additional improvements under the Move Illinois program will add additional capacity on existing routes, create new routes within the Tollway system and will introduce additional locations of all electronic tolling, where no cash or coins are collected.

### 7.2 Tollway Operations Department Expenses

Each department has a defined operating budget that is prepared by both the specific department and the Tollway's Finance department. Quarterly expenditures are carefully monitored to ensure compliance with the budget and to identify revisions that need to be made either in the current calendar year, or for the following year budget preparation.

Department expenses are fairly static and are generally influenced by the budgeted and actual headcounts within the department, as well as some minor annual fluctuations of material, utility or contract costs. The Tollway strives to manage to their overall and department budgets. Salary and Wage adjustments, required retirement contributions, and inflationary factors are the main variables on a year over year basis. Individual department budgets and overall budget line items may vary from one year to the next due to equipment refresh or operational changes. Four departments are influenced by dynamic factors that change from year to year that warrant special analysis.

#### **Toll Operations**

The Toll Operations Department is responsible for manual toll collection, which includes the collection and counting of all manually collected toll revenue along with cash handling. Maintenance of Tollway buildings is also managed within Toll Operations. The 2013 budget identifies reducing the Toll Operations Department positions by 3.0% from 2012 budget levels by eliminating vacancies, along with other adjustments. The headcount for Toll Operations has decreased substantially since 2005 as the Open Road Tolling projects have opened and the total number of manned toll lanes has been reduced. The number of budgeted positions within the department has dropped over 22% between 2008 and 2013, from 833 to 646. The need for lane walkers was eliminated and staffing has been reduced and has become more flexible (part-time and seasonal workers) as ORT and I-PASS usage matures with changes to toll rates, transponder penetration, transponder usage from other states and other factors. In addition, the Tollway has begun adjusting staffing levels so that there may not be any collectors at low usage time periods (most notably during overnight hours on the rural plazas on the Jane Addams and Ronald Reagan Memorial Tollways).

Expenses related to Toll Operations are primarily variable based upon the active number of employees there are within the department. Employee costs continue to make up almost 90% of the total department cost. As staffing levels have adjusted downward, the salary and wage costs are reduced, even considering wage adjustments. Retirement costs have increased, which have negated salary and wage cost reductions. Since 2009, the salary and wage costs for Toll Operations have been reduced over 5%, but non-salary personnel costs have increased from 32.7% to 46.6% of the salary and wage costs.

The Tollway has opened two interchanges that are fully electronic and additional interchanges are planned. The planned Elgin O'Hare Western Access roadways are expected to be exclusively electronic. Although the trend continues that a larger volume of transactions are and



will be electronic, the Tollway has not identified a time when eliminating cash collection will be viable or appropriate. Other toll agencies have shifted to 100% electronic collection, but the Tollway currently believes that negatives may outweigh the positives. Reduced revenues due to persistent violators and issues with license plate recognition may not allow the eliminated costs of cash collection to be recouped. The Tollway will continue to study industry trends to evaluate options in the future.

### **Business Systems**

The Business Systems Department is responsible for the operation and maintenance of the electronic tolling system hardware and software which also includes collecting toll revenue from toll violators and assessing fines and imposing sanctions. The Department monitors the contracts and performance of the structure surrounding the Electronic Tolling System known as Open Road Tolling. Additionally, Business Systems provides support through the Customer Call Center which acts as a single point of contact for all customer calls that relate to I-PASS, violations processing and missed toll services.

Business Systems expenses are primarily variable due to the number of transactions and amount of revenue collected from customers. Due to the toll rate increase that began effective January 1, 2012, the overall department budget has increased by over 25% between 2011 and the budget year 2013.

As discussed above regarding Toll Operations, no shift to all-electronic tolling is currently planned. There should be the expectation that I-PASS usage increases, especially with cash rates continuing to be double the I-PASS rate. Increased I-PASS transactions, along with traffic and revenue enhancement due to natural growth, increased capacity due to roadway widening, and substantial added vehicles due to roadway openings will drive costs within the Business Systems department.

### **Engineering**

The Engineering Department is responsible for the planning, design, construction, operation and maintenance of the Tollway. Additionally, Engineering coordinates with community groups, government agencies and planning organizations on transportation and land-use policy. This department oversees annual inspections of the pavement, bridges and drainage systems, as well as the overall day-to-day maintenance of the Tollway's fleet and roadway system.

The Engineering Department oversees three areas of operation:

- Design Project plans and specifications are prepared for various construction and maintenance activities according to the capital improvement program schedule.
- Construction Implements the construction phase of projects by ensuring quality construction and keeping them on schedule and within budget.
- Maintenance / Traffic Maintains the roadway system by keeping roads clean, well
  lit, and safe in all weather conditions; managing incidents; and informing motorists of
  traffic and travel concerns.

As of December 2012, the Engineering Department had an actual headcount of 553 employees, with approximately 90% of the employees within the Maintenance / Traffic unit. The improvements made as part of the CRP and planned under Move Illinois affect the Engineering Department two major ways.



- Additional engineers within design and construction units are required to administer the
  design and construction phases of the projects. The majority of this work has and will be
  performed by consulting engineers under contract with the Tollway, including the PMO
  and other firms serving as Design Section Engineers (DSE's) and Construction
  Managers (CM's). These costs are included within the CRP and Move Illinois budgets.
- Maintenance and Traffic units staffing will increase as the system length and number of lane miles grow. Staff will be augmented within the majority of the groups due to additional traffic and the system growth.

Table 17: Growth in Tollway System

Year	Centerline Miles	Mainline Lane-Miles	Ramp Lane- Miles	Total Lane- Miles
2012	286.0	1741.4	305.0	2046.4
2013	286.0	1742.8	305.0	2047.8
2014	286.0	1742.8	306.5	2049.3
2015	286.0	1742.8	312.5	2055.3
2016	290.8	1742.8	312.5	2055.3
2017	290.8	1909.6	363.1	2272.8
2018	290.8	1909.6	363.1	2272.8
2019	294.1	1930.3	380.9	2311.2
2020	294.1	1930.3	382.9	2313.2
2021	294.1	1930.3	382.9	2313.2
2022	294.1	1930.3	382.9	2313.2
2023	297.1	1930.3	385.9	2316.2
2024	297.1	1930.3	393.9	2324.2
2025	297.1	1930.3	393.9	2324.2
2026	300.3	1957.6	433.9	2391.6
2027-	300.3	1957.6	433.9	2391.6

The Maintenance / Traffic unit is subdivided into the following groups (staffing levels as of December 2012):

- Roadway Maintenance had 363 staffed positions working from the 11 maintenance facilities. They are responsible for activities such as roadway sweeping; litter collection; snow and ice control; minor pavement, guardrail, fence and bridge work; drainage system upkeep; roadside landscaping; traffic channelization; and motorist aid.
- Fleet Maintenance had 71 staffed positions and is responsible for the maintenance of all Tollway vehicles.
- Sign Shop had 17 staffed positions.
- Roadway Electric had 13 staffed positions.
- Traffic Operations had 10 staffed positions in the traffic operations center.
- Dispatch had 30 staffed positions and dispatches services in response to calls for motorist aid.

Maintenance / Traffic uses a database called the Maintenance Management System (MMS) to track costs associated with the Roadway Maintenance group and the Roadway Signage and



Lighting activities of the Traffic Operations group. From the MMS database, Tollway staff provided the Consulting Engineer with the 2012 annual expenditures broken down into 10 major activities, and further broken down into approximately 175 subactivities. The table below details the distribution of 2012 expenditures from the MMS.

Table 18: Distribution of 2012 Annual Expenditures from Maintenance Management System

	- Jotom	
Code	Activity	% of Total Cost
000	General Overhead	6.97%
100	General Maintenance	14.90%
200	Roadway & Shoulders	4.51%
300	Bridges	0.59%
400	Roadside Drainage & Appurtenances	7.51%
500	Roadside Litter Control	19.10%
600	Snow & Ice Control	22.61%
700	Roadside Landscaping	8.75%
800	Traffic Services Maintenance	8.22%
900	Mechanical & Electrical	6.84%
Total		100%

According to Tollway personnel, staffing levels at maintenance facilities have been closely tied to the snow and ice control program because of the high level of service goals established by the Tollway. Although snow and ice control are a seasonal activity, staff are hired on a permanent basis rather than as temporary or seasonal help. Snow and ice control staff members are prohibited from using vacation time during winter. Historically, the staffing level needed for snow and ice control has been relatively equal to the needs for maintenance work throughout the year. In addition, other staff, including a portion of the building maintenance employees in the Toll Operations Department, are trained to be available for snow and ice control functions.

#### Finance

The Finance Department covers a variety of internal and external roles within the Tollway. The majority of the cost items that are included within the department are fairly consistent. Risk Management is a small group within Finance that covers the costs for Worker's Compensation Insurance and Employee Group Insurance. These two insurance items were over \$31 million in 2012 (unaudited), which constitutes over 76% of the Finance Department costs and over 12% of the entire Tollway expenditures. Insurance costs may vary widely in the future (due to both premium increases and staffing levels), so these should be closely monitored.

### 7.3 Estimated Tollway Operating Expenses

Overall, salary and wage costs are projected to escalate to account for annual wage adjustments required by collective bargaining. The staffing level for Engineering is projected to increase as additional lane mileage is added as part of the Move Illinois, although some engineering positions are assumed to be eliminated at the conclusion of the program due to the lack of design and construction. Operational services staffing levels are projected to decrease

slightly annually as cash transactions decline with increased usage of electronic collection. Business Systems costs are expected to increase substantially over the study period due to transponder usage, increased toll rates and increases in traffic. The costs include both the transaction processing and the bank charges for account replenishment, video tolling charges and violation payments. The inflation rate utilized for non-labor expenditures is 3.0%.

Retirement and Pension contributions, as a percentage of Salary and Wages, have risen significantly in recent years. The average employer contribution rate for calendar year 2011 was approximately 31.1% of covered payroll. For 2012, the average employer contribution rate was 36.1% of covered payroll. These percentages are based upon the average employer contribution rates set by the State Employees' Retirement System during those years. For 2013, the first half of the year is utilizing a rate of 37.987% and the second half of the year will use 40.312%. For 2014 and beyond, the employer contribution rate is assumed to be 41.0% of covered payroll, based upon the employer contribution rate projected by the State Employees' Retirement System.

The Trust Indenture requires projections for five years beyond the "in-service" date of the project. Therefore, the Consulting Engineer has projected Operating Expenses, as defined in the Trust Indenture, for each of the fiscal years 2013 through 2031 as provided in the table below.

**Table 19: Estimated Operating Expenses** 

	ic 13. Estimated Operating	) = 11   0   11   0
Year	Operating Expenses	Annual Increase
2013	\$283,400,000	5.94%*
2014	\$297,100,000	4.83%
2015	\$309,300,000	4.12%
2016	\$323,200,000	4.48%
2017	\$337,200,000	4.33%
2018	\$349,400,000	3.62%
2019	\$362,600,000	3.77%
2020	\$377,400,000	4.07%
2021	\$390,800,000	3.55%
2022	\$403,800,000	3.34%
2023	\$420,500,000	4.13%
2024	\$436,000,000	3.69%
2025	\$451,300,000	3.51%
2026	\$468,200,000	3.74%
2027	\$484,900,000	3.56%
2028	\$502,100,000	3.54%
2029	\$519,600,000	3.48%
2030	\$537,600,000	3.46%
2031	\$556,200,000	3.46%

<sup>\* 2013</sup> annual increase represents change from 2012 budget to 2013 budget.

The estimates for Operating Expenses prepared by the Consulting Engineer and included in this report have an average growth per year of approximately 3.8% between 2013 and 2031. There are many factors that will dictate what the actual Operating Expenses experienced by the Tollway will be, and the Consulting Engineer cannot predict the outcome of these factors. The Consulting Engineer has compared the assumptions and forecasts provided by the Tollway against the proposed system expansion and operational changes and find them to be reasonable. Thus, these forecasts and assumptions have been included in the Consulting Engineer's analysis. However, the Consulting Engineer cannot predict unforeseen circumstances or unusual price escalations that are not currently identified and known; thus, the estimates above may vary from actual expenses.

#### 8.0 Conclusion

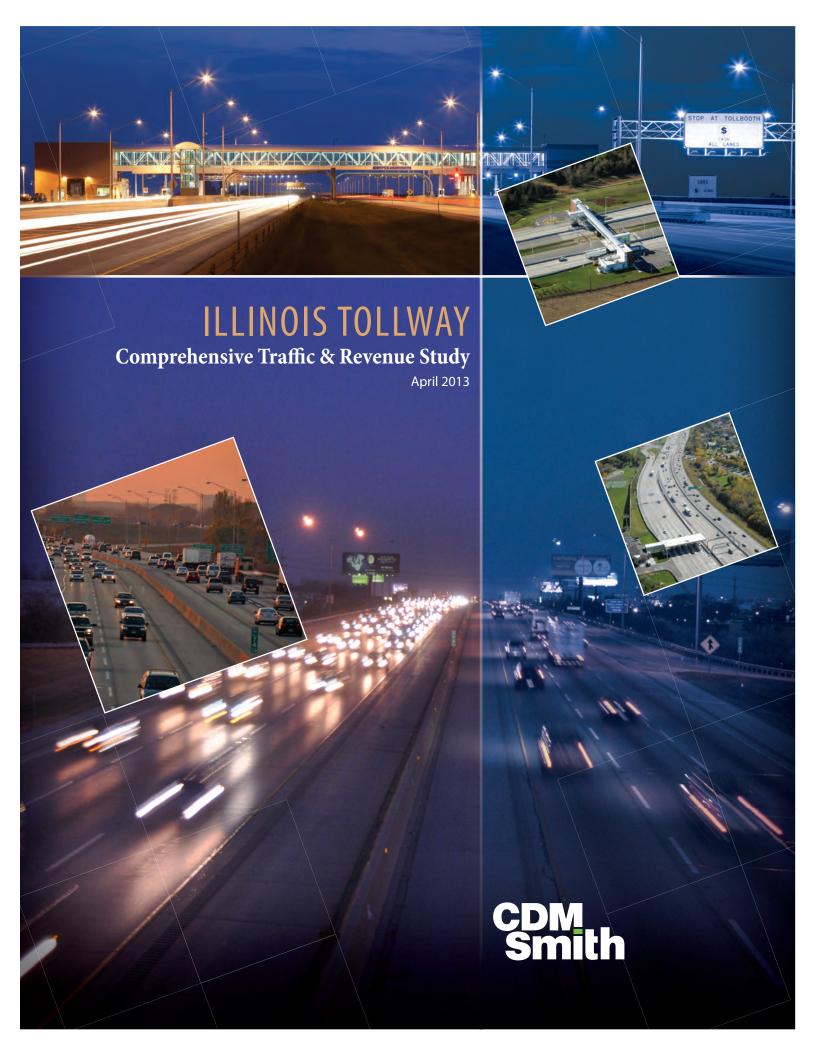
This report complies with Section 204.1.(4) of the Amended and Restated Trust Indenture Effective March 31, 1999. It provides the estimates for Operating Expenses and Renewal & Replacement Deposits for five years beyond the in-service date (through 2031). It also provides the estimated cost of construction and the schedule of completion for the projects (as developed by the Tollway's PMO and reviewed for reasonableness by the Consulting Engineer) included in the Tollway's Congestion-Relief Program and Move Illinois Program that may be partly or wholly funded from bond proceeds. Current professional practices and procedures commensurate with the scope of work and schedule of the Consulting Engineer's work were used in the development of this report.

The Tollway and PMO have had great success in delivering the CRP in a timely fashion and under budget. This is expected to continue as the Tollway begins major construction of Move Illinois projects in 2013. The cost estimates utilized for the compilation of costs for the program follow standard industry practices and contain appropriate contingency factors based upon level of completeness of the design. All project costs are escalated appropriately to the estimated mid-point of construction. At this time, the overall estimate of the cost of Move Illinois at \$12.15 billion appears reasonable.

Market conditions and unforeseen events beyond the control of Consulting Engineer, the PMO, or the Tollway may affect the implementation and cost of the Move Illinois Program and the future Operating Expenses of the Tollway as detailed herein. The Consulting Engineer presumes that the PMO will continually monitor the Move Illinois Program and will make adjustments to the scopes and schedules of projects in order to control the cost of the overall program. On an annual basis, the Consulting Engineer's recommendation for the Renewal and Replacement deposit will reflect consideration of adjustments to the Move Illinois Program by the PMO. Any party reviewing this report must take these factors into consideration.

# APPENDIX C TRAFFIC ENGINEER'S REPORT





# **ILLINOIS TOLLWAY**

Comprehensive Traffic and Revenue Study

Prepared for:

ILLINOIS STATE TOLL HIGHWAY AUTHORITY

By:

**CDM Smith** 

April 2013





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# Chapter 1

# **Background**

### Introduction

The Illinois Tollway operates a system of toll facilities in northern Illinois, primarily within the Chicago metropolitan area and the surrounding "collar" counties. The system currently includes 286 centerline miles of limited-access highways, all of which are designated as part of the Interstate Highway System. The Illinois Tollway was created by the Illinois General Assembly in 1953 to provide for the construction, operation, regulation, and maintenance of a system of toll highways within the State of Illinois. Opened in September 1958, the first Illinois Tollway routes were financed through the sale of revenue bonds. Bond debt payments, as well as ongoing maintenance and operating costs, are funded through the collection of tolls paid by roadway users. The system has expanded dramatically over the years to keep pace with increasing traffic demand and regional expansion. The Illinois Tollway system is self-supporting and does not receive federal or state funding.

# **Report Overview**

The following report presents the findings of the Comprehensive Traffic and Toll Revenue Study, and is intended to support the issuance of new toll revenue bonds in the second quarter of 2013. The report provides potential investors and the financial community with a comprehensive overview of the system's position within the regional transportation network, operating characteristics, past revenue trends, and the methodologies used to develop future traffic and toll revenue estimates. This comprehensive traffic and revenue study includes two sets of traffic and toll revenue estimates: first for the system under its current extent; followed by projections that include the proposed Elgin-O'Hare Western Access facility (EOWA). The EOWA is a major component of the Tollway's "Move Illinois" capital improvement program, and will be described in detail throughout this report.

The remainder of this chapter presents an overview of the geographic region in which the Tollway system is situated, and a general description of the individual facilities that comprise the Tollway system. The chapter concludes with a discussion of the toll collection methods used on the Illinois Tollway as well as the past and current toll rate structure.

• Chapter 2 focuses on historical and current operating characteristics of the Illinois Tollway, including growth in traffic volume over time, toll revenue trends, and participation in the Tollway's electronic toll collection (ETC) system, known as I-PASS. This section provides additional information regarding typical travel speeds, both on and off the system, and presents a summary of survey findings that portray a profile of Tollway patrons and distribution of various trip characteristics.

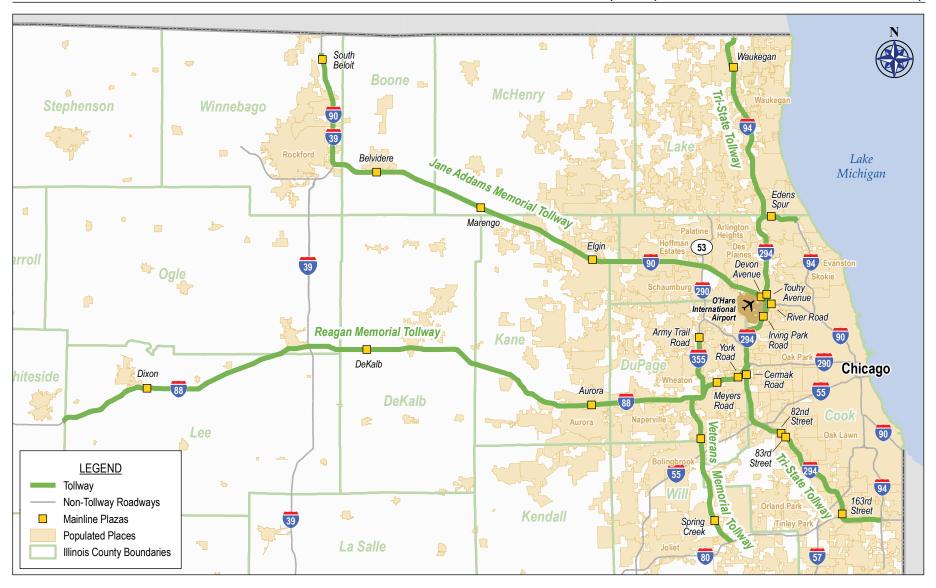
- Chapter 3 provides an analysis of demographic and economic conditions within the Illinois Tollway service area. This chapter explores historical development patterns and highlights current socioeconomic attributes of the service area.
- Chapter 4 documents the methodology used to develop traffic and revenue estimates
  presented herein, and describes in detail the processes employed for travel demand
  forecasting, model development, and model calibration. This section also identifies and
  provides the rationale behind the use of key variables.
- Chapter 5 summarizes traffic and toll revenue forecasts for 2013 through 2040 for the existing Illinois Tollway system and outlines the basic assumptions, toll rate assumptions, and key inputs to the forecasting process, including specific projects that comprise the Move Illinois capital program. The chapter identifies specific one-time events, such as facility expansion or improvement, planned construction efforts, and other events that may materially impact traffic and toll revenue.
- Chapter 6 addresses EOWA, a major component of the Move Illinois capital improvement program, presenting a detailed project description, existing traffic conditions in the project corridor, and the specific socioeconomic attributes of the immediate area of influence. The chapter identifies and explains the situations in which modeling methodologies and assumptions differ from those used in evaluating the existing Illinois Tollway system. The chapter concludes with a presentation of estimated traffic and toll revenues for the system with the EOWA, including a discussion of not only the potential revenue on the EOWA, but also the impacts of that facility on the rest of the Illinois Tollway system.
- Chapter 7 documents the sensitivity tests performed by CDM Smith, which entail the alteration of key assumptions, such as regional socioeconomic growth, the assumed value of time, and the cost of motor fuel. The results of the sensitivity tests provide insight into the degree to which each of the tested variables has an impact on the system.

# The Tollway Service Area

Illinois Tollway facilities pass through 12 counties in northern Illinois, as illustrated in Figure 1-1. For the purpose of this report, these counties—Cook, Boone, DeKalb, DuPage, Kane, Lake, Lee, McHenry, Ogle, Whiteside, Will, and Winnebago—comprise the local service area from which the majority of the system's trips are derived.

The geographical location of the Chicago metropolitan region, in relation to the rest of the country, significantly influenced population settlement and commercial development patterns in the area. Lake Michigan provides a barrier to ground transportation between the northeastern and western United States, requiring any ground transportation route to pass south of Lake Michigan through the Chicago metropolitan region. This location significantly contributed to Chicago's status as a major railroad hub and the dominant urban area in the Midwestern United States. These same traits deemed Chicago a strategic hub for regional and interstate highway travel as motor vehicles became the dominant mode of commercial transport.







#### **ILLINOIS TOLLWAY SERVICE AREA**

The Illinois Tollway was originally constructed to provide efficient interstate travel between Wisconsin, Illinois, and Indiana, and to complement the expressway network built to serve the Chicago area. The Tri-State Tollway, Jane Addams Memorial Tollway, and the Reagan Memorial Tollway east of Aurora opened for traffic in 1958. The western portion of the Reagan Memorial Tollway opened in 1974. The Northern portion of the Veterans Memorial Tollway (from I-55 to Army Trail Road) opened in late 1989. The South Extension of the Veterans Memorial Tollway (from I-55 to I-80) opened in late 2007.

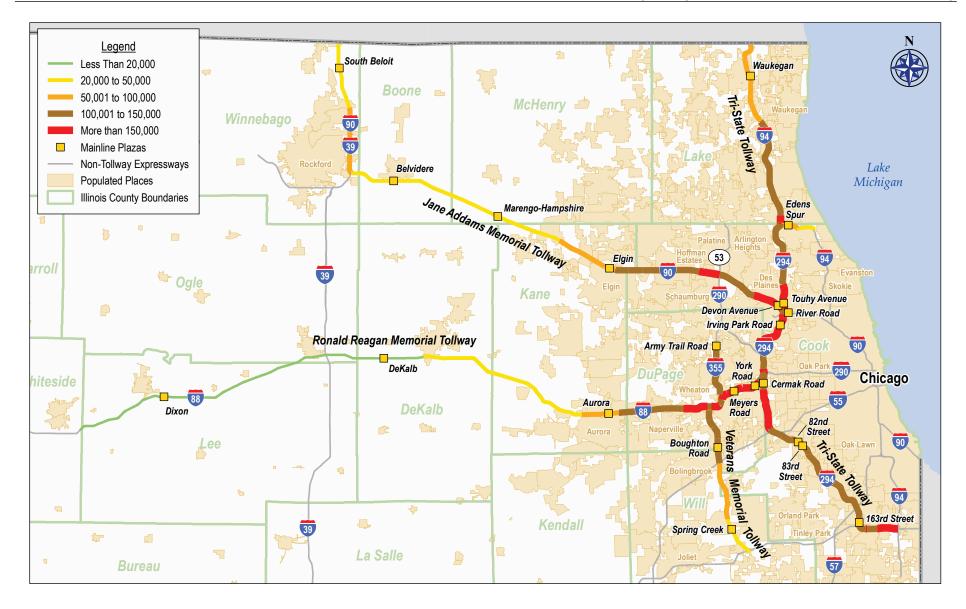
At the opening of the three original facilities in 1958, the Chicago metropolitan area had a population of more than 6.5 million. However, much of the region's employment at that time was concentrated within the city of Chicago, and the downtown area was one of the largest employment centers in the country. Similar to much of post-World War II America, Chicago's suburbs developed rapidly between the 1950s and 1970s. This rapid residential development of suburban northeastern Illinois made much of the Illinois Tollway system prime commuter routes to employment centers in Chicago and surrounding Cook County. As employment increased in the suburban areas—particularly in Lake, DuPage, and northwest Cook counties—travel patterns evolved on the Tollway system. Suburban-to-suburban commutes became more common, further contributing to traffic growth. In response to this trend, interchanges were added throughout the urbanized area, and in 1989, the Veterans Memorial Tollway was constructed to serve the growing suburban-to-suburban commuter market.

While commuter traffic constitutes the majority of transactions, the Illinois Tollway system continues to serve a vital role in interstate commerce. In 2012, there were over 92 million commercial vehicle (CV) transactions on the Illinois Tollway, which accounted for 33 percent of the Tollway's revenues. The Tri-State Tollway accounts for more than half of all CV transactions and revenues on the Tollway. This route is vital to regional commerce, allowing for the efficient transfer of materials between Wisconsin, Indiana and Illinois. Within Illinois the route is adjacent to O'Hare International Airport, several intermodal rail facilities, and numerous manufacturing and warehousing facilities. The Tri-State Tollway also provides connections to the following Interstate routes: I-55, I-57, I-65, I-80, I-90 and I-94. Jane Addams Memorial Tollway (I-90) is part of the overall Interstate 90 route, which extends 3,100 miles from Boston to Seattle, serving a vital link in long-haul national commerce. The remaining two routes, Reagan Memorial Tollway (I-88) and Veterans Memorial Tollway (I-355), while serving somewhat fewer commercial vehicles, provide similarly important roles to regional and interstate commerce.

# Illinois Tollway Routes

The Illinois Tollway system consists of four routes: Jane Addams Memorial, Tri-State, Reagan Memorial, and Veterans Tollways. Figure 1-2 illustrates these routes and their current average daily traffic volumes. The following section presents a general description of the physical attributes and location of each of the four Tollway routes and provides an overview of the demographic and socioeconomic makeup of the areas they serve.







# **ILLINOIS TOLLWAY 2011 AADT VOLUMES**

# **Jane Addams Memorial Tollway**

The Jane Addams Memorial Tollway, designated Interstate 90 for its entire length, runs in a generally east-west alignment from just east of the Chicago O'Hare International Airport, through Rockford, Illinois, to the Wisconsin border. As illustrated in Figure 1-3, the Jane Addams Tollway passes through portions of Cook, Kane, McHenry, Boone, and Winnebago counties.

At its northernmost extent, Illinois Tollway jurisdiction on I-90 ends at Rockton Road, 1.2-miles south of the Illinois-Wisconsin State border. Tollway jurisdiction ends just east of O'Hare International Airport, from which I-90 continues as the Kennedy Expressway, providing a direct route to the northwest side of Chicago and the Chicago Central Business District. As part of the 3,101-mile-long Interstate 90 route, the Jane Addams Memorial Tollway links the east and west coasts, and provides access between northwest Indiana and central Wisconsin. The western 15 miles of the route have a six-lane cross section, the central 35 miles have a four-lane cross section. and the eastern 27 miles of the route have a six-lane cross section. This eastern section has a 55mile-per-hour (mph) posted speed limit. The remainder of the Jane Addams has a 65 mph posted speed limit.

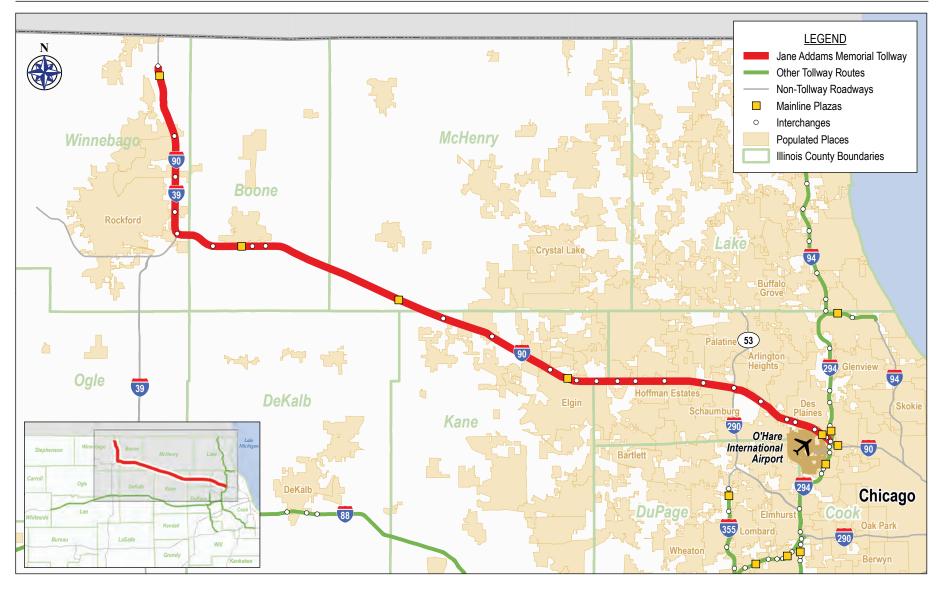
The easternmost segment of the Jane Addams is located in northwest Cook County. Although it lies outside the City of Chicago limits, northwest Cook County has become a densely-developed urban area as a result of sustained population and employment growth since the 1950s. According to the 2010 census, the City of Elgin, located in Cook and Kane counties, is home to approximately 108,000 persons. Neighboring Arlington Heights and Schaumburg have populations of approximately 75,000 each. Chicago O'Hare International Airport, the second busiest airport in the U.S. and fourth busiest in the world(1), and the nearby community of Elk Grove Village, are major employment centers. Office and other commercial development are strong throughout this corridor. Woodfield Mall and the City of Schaumburg serve as major regional retail centers. Northwest Cook County is expected to continue to grow in the future, though at a slower pace due to the diminishing availability of developable land.

The western section of the Jane Addams connects northwest Cook County to the Rockford metropolitan area, passing through low density suburban and rural areas. While lower in density than Cook, Kane, and McHenry, the counties through which the route passes are among the fastest growing in Illinois, as development continues to spread westward out from the Chicago area. In 2010-2011, Chrysler invested \$700 million to reconfigure and expand its Belvidere Assembly Plant in Boone County. The facility, located adjacent to the Tollway, employs nearly 5,000 workers.

<sup>(1) 2011</sup> List of World's busiest airports as measured by passenger traffic from Airports Council International.



1-6





### **Tri-State Tollway**

The Tri-State Tollway is illustrated in Figure 1-4. The southern 53 miles are designated I-294, while the northern 25 miles are designated I-94. The southernmost five miles are designated as both part of I-80 and I-294. Between 2006 and 2009, more than 105 lane-miles were added to the Tri-State as large portions were reconstructed and widened. Only the central section, which was already eight lanes wide from 95th Street to Balmoral Avenue, was not widened during this time frame. The route now provides an eight-lane cross section along its entire length. The primary function of the Tri-State Tollway is to provide a circumferential bypass route around the City of Chicago, connecting suburban communities from the Indiana border to the Wisconsin border. The Tri-State Tollway also provides access between the northern and southern suburbs to Chicago O'Hare International Airport. In the southern I-294/I-80 section, where the route runs east-west, the Tri-State Tollway is part of a major cross-country commercial route running from New York to San Francisco.

The northern section passes through Lake County, a mature suburban area. Urban Waukegan, with a 2010 population of 89,000, is situated near the northern end of the Tri-State Tollway. Lake County has incurred significant growth for the last three decades, specifically central Lake County west of the Tri-State Tollway. Lake County is expected to continue to grow from approximately 703,000 in 2010 to 941,000 in 2040 at an average annual rate of 0.97 percent per year. (2)

Northern Cook and Lake County, through which this route passes, has also experienced steady employment growth. Home to numerous corporate headquarters, including Kraft Foods, Walgreens Co., Motorola, Baxter International, Allstate, Crate & Barrel, Caremark Rx, and others, much of this dense, regional employment is located in the immediate Tri-State corridor, forming a heavily-traveled commuter facility throughout this area.

With direct access via I-190, Chicago's O'Hare International Airport and surrounding commercial and manufacturing development provide another source of significant trip generation on the Tri-State Tollway. Land surrounding the airport is densely populated and houses mature commercial, industrial, and residential areas. The DuPage County suburbs to the west of the facility are also mature, comprised of a mix of office, manufacturing, and residential land uses.

South of the facility, the Tri-State Tollway passes through an area with a high concentration of manufacturing activity, particularly heavy industry. However, manufacturing declines over the last three decades have negatively impacted these southern suburbs and the area immediately to the east in Indiana. Therefore, many southern suburban residents use the Tri-State to travel to jobs in the western and northern suburbs.

<sup>(2) 2010</sup> Population from U.S. Census Bureau; 2040 Population forecast from Chicago Metropolitan Agency for Planning.







# TRI-STATE TOLLWAY LOCATION MAP

### **Reagan Memorial Tollway**

The Reagan Memorial Tollway, designated as Interstate 88 for its entire length, extends from the Tri-State Tollway near the Cook-DuPage County line (15 miles west of downtown Chicago) in the east, to the eastern edge of Whiteside County in north central Illinois (near Rock Falls) in the west, as illustrated in Figure 1-5. Under the Congestion-Relief Program, I-88 was widened to eight lanes from MP 123.1 to 137.1, giving the route an eight-lane cross section for the eastern 17 miles, from the eastern end to Illinois 59. By the end of 2012, six lanes will extend from Illinois 59 to Illinois 56. The western 69 mile section is four lanes wide and has a posted speed limit of 65 miles per hour. The rest of the Reagan Memorial is signed as 55 mph, with the exception of the short segment between Orchard Road and Illinois 56, which is also 65 mph.

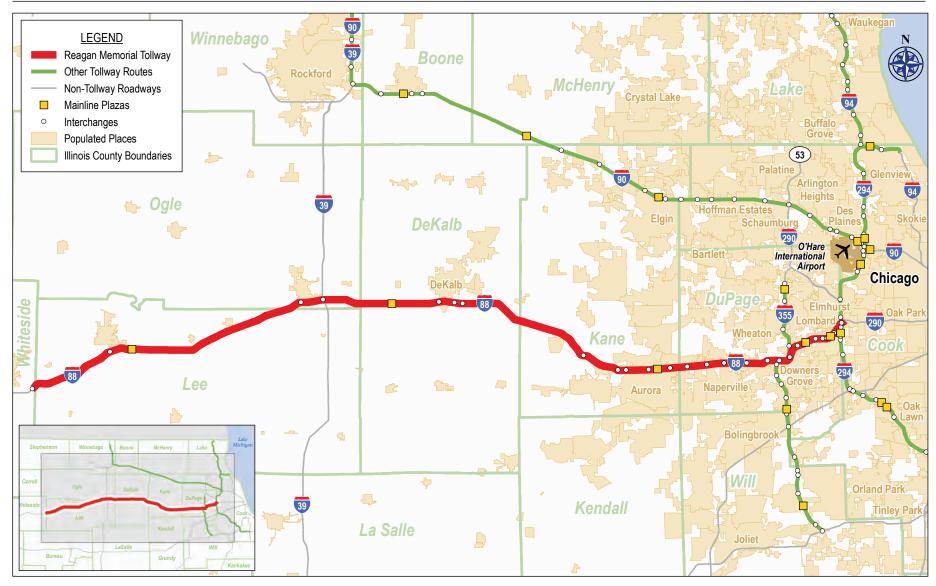
At the western end of Tollway jurisdiction, I-88 continues west as a free route (west of U.S. 30) for an additional 44 miles, terminating at I-80, east of the Davenport-Moline-Rock Island metropolitan area (also known as the Quad Cities). East of I-294 (the Tri-State Tollway), the route continues as I-290—the Eisenhower Expressway—providing access to the Chicago central business district.

From its eastern terminus, the Reagan passes through mature communities in DuPage County and eastern Kane County. These suburban communities have seen exceptionally high growth over the past few decades, with developable land rapidly diminishing. Aurora and Naperville had approximate populations of 198,000 and 142,000, respectively in 2010, making them two of the most populated communities along the corridor. Navistar, Tellabs, and Office Max are headquartered in Naperville. Combined, McDonald's and Oakbrook Center, a regional mall, employ more than 6,000 people in Oak Brook, near the eastern end of the Tollway. As available land has become scarcer, development has pushed west of the Fox River Valley, deeper into Kane County. While the rapid pace of development slowed considerably following the recent housing crisis, this area remains abundant with desirable and developable land. Kane County, which marks the transition from predominantly suburban to rural land use, is one of the fastest growing counties in Illinois. Much of the remaining western portion of the I-88 corridor passes through rural communities and agricultural land use, which is less densely populated and not anticipated to change significantly over the term of this forecast.

## **Veterans Memorial Tollway**

The Veterans Memorial Tollway, designated Interstate 355, extends from its northern terminus at Army Trail Road in DuPage County, to its southern terminus at Interstate 80 in Will County, as shown in Figure 1-6. The roadway is primarily a six-lane configuration throughout, with auxiliary lanes as needed, and an eight-lane segment between the Reagan Tollway and 75th Street. Developed suburban land characterizes the I-355 corridor, serving communities such as Addison (2012 population of 37,000), Bolingbrook (73,000), Downers Grove (48,000), Glendale Heights (34,000), Lombard (43,000), and Woodridge (33,000). Undeveloped land flanking the original section of the Veterans Memorial Tollway (from Army Trail Road to I-55) is diminishing. The Veterans Memorial Tollway was expanded south to I-80 in Will County in 2007. Will County is expected to grow rapidly in the coming decades.











# Illinois Tollway Capital Programs

The Illinois Tollway has undertaken two major capital programs since 2004, described below. A detailed description of the current capital program is provided in Chapter 5.

### 2005 Congestion Relief Program: "Open Roads for a Faster Future"

In September 2004, the Illinois Tollway Board of Directors (Board) approved a long range capital plan, called the Congestion-Relief Program (CRP). At the same time, the Board approved a new toll rate structure that was put into effect on January 1, 2005 to help finance the capital program. The Illinois Tollway's toll rate structure had remained essentially the same from 1983 through the end of 2004. The CRP added roadway capacity to reduce existing congestion and accommodate future traffic growth. Some notable widening projects, by route, include:

- Jane Addams Memorial Added one lane in each direction between Newburg Road and Rockton Road, milepost 61.4 to 75.5
- Tri-State Added one lane in each direction from southern terminus to 95<sup>th</sup> Street, milepost 0.0 to 17.6.
- Tri-State Added one lane in each direction from Balmoral Avenue to Illinois 173, milepost 40.0to milepost 75.7.
- Ronald Reagan Memorial Added one lane in each direction from Illinois 59 to Illinois 83, milepost 123.3 to 137.1
- Veterans Memorial Added one lane in each direction from 75<sup>th</sup> Street to Ogden Avenue, milepost 15.5 to 19.5

Each of the widening projects also included some reconstruction of the existing roadway. Additionally, the CRP reduced delays at toll plazas by converting all 22 mainline toll plazas to "Open Road Tolling" by October 2006. Finally, the CRP funded a new 12.5-mile addition to the system, the South Extension of the Veterans Memorial Tollway, which opened on November 11, 2007. The CRP is largely complete as of 2012.

#### 2012 Move Illinois Program

Following an 18-month review and public discussion of the Illinois Tollway's needs for its existing system and opportunities to improve regional mobility, the Illinois Tollway Board of Directors adopted a 15-year, \$12 billion capital program coined "Move Illinois: The Illinois Tollway Driving the Future," in August 2011. The new capital program, to be completed between 2012 and 2026, will be funded by a combination of current toll revenue and bonds backed by future toll revenues. In anticipation of the Move Illinois program, the Tollway increased the rate for passenger vehicles on January 1, 2012, which will be followed by an approved increase in commercial vehicle rates that will be phased in between 2015 and 2017.

Cornerstone projects of the of the *Move Illinois* program include:



- Rebuilding and widening the Jane Addams Memorial Tollway (I-90) from O'Hare International Airport to Rockford
- Reconstructing the central Tri-State Tollway (I-294) from 95th Street to Balmoral Avenue
- Constructing an interchange between the Tri-State Tollway (I-294) and I-57
- Constructing the Elgin-O'Hare Western Access, including extending the Elgin O'Hare Expressway to the east, constructing a new roadway between I-90 and I-294, and widening the existing Elgin O'Hare Expressway
- Matching funds for construction of service interchanges in accordance with the Illinois Tollway Interchange Policy
- Planning studies for the Illinois Route 53/120 Extension and the Illiana Expressway

#### Toll Collection and Toll Rates

The Illinois Tollway collects tolls at 22 mainline plazas and 51 ramp plazas. All of the mainline plazas and two of the ramp plazas offer plaza attendants for motorists paying cash, requiring change, or requesting receipts. The remaining 49 ramp plazas are unattended. Toll payments can be made either electronically using the I-PASS system or with exact change at all plazas except on two specific ramps discussed in more detail below.

Electronic toll collection (ETC) started on the Illinois Tollway system in 1993 with a small pilot program on part of the Veterans Memorial Tollway. In 1994, electronic tolling expanded to other plazas and in 1995, I-PASS-only lanes were introduced. In 1998, the Illinois Tollway began installing I-PASS Express lanes that enabled drivers to pay tolls while traveling at higher speeds through the plazas. Open road tolling ("ORT"), which allows I-PASS payment at highway speeds, was introduced on all mainline plazas between 2005 and 2006. With ORT, vehicles paying by I-PASS never have to leave their travel lane to pay a toll. There is no reduction in the number of lanes. Drivers with I-PASS need take no action other than to pass under the toll gantry in their current lane. Only cash-paying patrons must exit the through lanes to use toll plazas to the side of the mainline plaza, and re-enter the roadway after paying their toll.

The aforementioned toll rate increase in 2005 doubled passenger car cash rates for cash payers, while passenger car I-PASS rates remained unchanged. Commercial vehicle increases ranged from 125 to 275 percent. Five-axle trucks, the most common commercial vehicles, saw their rates more than triple. The 2005 toll rate schedule also simplified the former 10 toll rate classes to four rate tiers: one for passenger cars and three for commercial vehicles. Table 1-1 compares vehicle types under the old 10 class system and the current rate tier system.

The new toll schedule offered off-peak I-PASS discounts for commercial vehicles for the first time. These increases, in addition to an aggressive marketing campaign, increased I-PASS usage on the system from approximately 50 to approximately 75 percent of total transactions between 2004 and 2005. In 2005 the Illinois Tollway also joined the E-Z Pass Group, which is made up of toll agencies in the Midwest and Northeast United States. Membership in this group allows for



sharing of an in-vehicle transponder for toll payment on all member facilities. This arrangement provides great benefit to long-haul commercial vehicle drivers.

**Table 1-1: Toll Rate Tiers** 

Pı	revious Vehicle Rate Classifications	Current Ve	ehicle Rate Tiers	
Number	Description	Number	Description	Terms Used in Report
1	Automobiles, motorcycles, single-unit truck or tractor with two axles and four or fewer tires	1	Cars	Passenger Cars
2	Single unit truck or bus with two axles and six tires	2	Small trucks	Commercial Vehicles
3	Three axle trucks or buses	3	Medium trucks	Commercial Vehicles
4	Trucks with four axles	3	Medium trucks	Commercial Vehicles
7	Class I vehicles with one axle trailer	3	Medium trucks	Commercial Vehicles
8	Class I vehicle with two axle trailer	3	Medium trucks	Commercial Vehicles
5	Truck with five axles	4	Large trucks	Commercial Vehicles
6	Truck with six axles	4	Large trucks	Commercial Vehicles
9	Special or unusual vehicles and trucks with seven or more axles	4	Large trucks	Commercial Vehicles
10	Per-axle rates for passenger cars with trailer of three or more axles	4	Large trucks	Commercial Vehicles

In 2009 and 2011, the Tollway opened its first two All Electronic Tolling (AET) plazas at Eola Road (Plaza 60) on the Reagan Memorial Tollway (I-88), and at Balmoral Ave. (Plaza 30) on the Tri-State Tollway (I-294). Both ramp plazas are located in areas with high I-PASS usage. On February 16, 2010, the Tollway began an Unattended Toll Plaza Program at the Spring Creek (Plaza 99) and Dixon (Plaza 69) mainline plazas on the Reagan Memorial Tollway (I-88). Under this program, all the staffed toll booths at a plaza are closed between 10:00 PM and 6:00 AM. The Tollway offers cash customers, who drive through these plazas during the unmanned periods, a seven-day grace period to pay the toll online, by mail, or at another mainline plaza with attendants on duty before it becomes a violation.

As previously mentioned, passenger car toll rates increased by 87.5 percent on January 1, 2012 for both cash and I-PASS users. This rate change increased the typical mainline toll from 40 cents to 75 cents for I-PASS customers, and from 80 cents to \$1.50 for cash customers. No additional passenger car toll rate increases are currently scheduled or planned. Commercial vehicle toll



rates are scheduled to increase a total of 60 percent between 2015 and 2017, following which annual rate adjustments will be made to commercial vehicle rates tied to the rate of inflation.<sup>(3)</sup>

There have been four passenger car toll rate changes: an average increase of 17 percent in 1963, a decrease of 14 percent in 1970, a 37 percent increase in 1983, and most recently, a 87.5 percent in 2012. Commercial vehicles have undergone three rate increases: 50 percent in 1963, 68 percent in 1983, and 216 percent in 2005.

Even with the 2012 toll rate increase, the Illinois Tollway is still among the lower priced toll roads in the country on a per-mile basis. Table 1-2 lists passenger car rates for most toll roads in the U.S.

Historical toll rates at a typical plaza are illustrated in Table 1-3. Not all plazas charge these rates; however, most of the mainline plazas on the three original routes are similar. A detailed schedule of toll rates for all plazas is presented in Appendix A of this report.

 $<sup>^{(3)}</sup>$  The 2015-2017 CV increases are 40 percent in 2015 and 7.14 percent in 2016, for a 2015-2016 total of 50 percent, and an additional 6.67 percent in 2017, for a 2015-2017 total of 60 percent.



Table 1-2: Toll Rates for U.S. Facilities

	\$ per	mile	
	Passenger	5-Axle	
Agency or Facility	Car	Truck	
Cameron County Regional Mobility Authority (Brownsville, TX)	\$0.500	\$2.000	
Chicago Skyway	\$0.449	\$2.154	
Dulles Greenway (Washington DC)	\$0.343	\$1.029	
Pocahontas Parkway (Richmond, VA)	\$0.341	\$0.682	
Northwest Parkway (Denver, CO)	\$0.330	\$1.320	
Transportation Corridor Agencies (Orange County, CA)	\$0.301	\$1.125	
South Bay Expressway (San Diego, CA)	\$0.275	\$0.550	
E-470 Public Highway Authority (Denver, CO)	\$0.261	\$1.044	
Central Texas Regional Mobility Authority (Austin, TX)	\$0.241	\$0.966	
Richmond Metropolitan Authority (Richmond, VA)	\$0.237	\$0.339	
Beach Express (Gulf Coast Region, AL)	\$0.222	\$0.444	
Fort Bend County Toll Road Authority (Houston, TX)	\$0.205	\$0.869	
City of Chesapeake (VA)	\$0.188	\$0.250	
North Carolina Turnpike Authority	\$0.170	\$0.681	
Dulles Toll Road (Washington DC)	\$0.168	\$0.279	
Tampa-Hillsborough Expressway Authority	\$0.167	\$0.667	
Miami Dade Expressway Authority	\$0.165	\$0.661	
Harris County Toll Road Authority (Houston, TX)	\$0.162	\$0.740	
North Texas Tollway Authority (Dallas, TX)	\$0.146	\$0.585	
Osceola County (Orlando, FL)	\$0.141	\$0.565	
Orlando-Orange County Expressway Authority	\$0.138	\$0.332	
Texas Tollways; Texas Department of Transportation (Laredo, Tyler, and Houston, TX)	\$0.131	\$0.441	
Greenville Southern Connector (Greenville, SC)	\$0.125	\$0.438	
New Jersey Turnpike Authority - New Jersey Turnpike	\$0.118	\$0.388	
Central Texas Turnpike System (Austin, TX)	\$0.117	\$0.540	
South Carolina DOT	\$0.100	\$0.500	
Maryland Transportation Authority	\$0.099	\$0.619	
Delaware DOT	\$0.096	\$0.265	
Pennsylvania Turnpike Commission	\$0.084	\$0.328	
South Jersey Transportation Authority	\$0.080	\$0.319	
Georgia State Road and Tollway Authority	\$0.079	\$0.354	
Virginia DOT	\$0.075	\$0.150	
Florida Department of Transportation (Includes Florida Turnpike Enterprise)	\$0.068	\$0.237	
Illinois State Toll Highway Authority	\$0.062	\$0.312	
Oklahoma Turnpike Authority	\$0.053	\$0.186	
New York State Thruway	\$0.048	\$0.239	
New Tork State Thirdway  New Jersey Turnpike Authority - Garden State Parkway	\$0.048	\$0.239	
Ohio Turnpike Commission	\$0.048	\$0.235	
Massachusetts Department of Transportation	\$0.047	\$0.202	
West Virginia Parkways Authority	\$0.044	\$0.202	
Maine Turnpike Authority	\$0.044	\$0.176	
New Hampshire DOT	\$0.044	\$0.170	
Kansas Turnpike Authority	\$0.045	\$0.120	
Indiana Toll Road	\$0.039	\$0.120	
National Average	\$0.030	\$0.235	

Toll rates are for electronic payments at peak hour rates, if applicable. Toll Rates are current as of 9/7/12.



Table 1-3: Historical Toll Rates on the Illinois Tollway

	Vehicle Class	<u>Previous Rates</u>		tes		Current	Rates**		
Class	Description	1959- 1963	1964- 1970	1971- 1983	1983- 2004	2005-2011 Discount	2005-2011 Non- Discount	Discount	Non- Discount
1	Automobile, motorcycle, single unit truck or tractor, two axles, four or less tires	\$0.30	\$0.35	\$0.30	\$0.40	\$0.40	\$0.80	\$0.75	\$1.50
2	Single unit truck or tractor, buses, two axles, six tires	0.40	0.45	0.30	0.50	1.00	1.50	1.00	1.50
3	Three axle trucks and buses	0.50	0.50	0.45	0.75	1.75	2.25	1.75	2.25
4	Trucks with four axles	0.50	0.60	0.60	1.00	1.75	2.25	1.75	2.25
5	Trucks with five axles	0.50	0.75	0.75	1.25	3.00	4.00	3.00	4.00
6	Trucks with six axles	0.50	0.90	0.90	1.50	3.00	4.00	3.00	4.00
7	Class 1 vehicle with one axle trailer	0.50	0.50	0.45	0.60	1.75	2.25	1.75	2.25
8	Class 1 vehicle with two axle trailer	0.50	0.60	0.60	0.80	1.75	2.25	1.75	2.25
9	Miscellaneous passenger car, special or unusual vehicles not classified above	0.50	0.90	1.00	1.75*	3.00	4.00	3.00	4.00
10	Miscellaneous Commercial vehicle special or unusual vehicle not classified above	-	-	-	1.75	3.00	4.00	3.00	4.00

Typical rates at mainline plazas on Jane Addams, Tri-State, and Reagan Memorial Tollways.

<sup>\*</sup> Class 9 rate was \$0.20 per axle for automobiles and \$0.25 per axle for trucks.

<sup>\*\*</sup> Passenger cars equipped with I-PASS pay the discount rate, and cash users pay the non-discount rate. All commercial vehicles pay the non-discount rate during daytime hours. Commercial vehicles pay the discount rate between 10 p.m. and 6 a.m.

# Chapter 2

# **Tollway Traffic Trends and User Profiles**

This chapter provides an analysis of historical and cyclical traffic trends on the existing Illinois Tollway facilities, and provides an overview of travel pattern surveys and travel time studies conducted on the Illinois Tollway.

# Annual Toll Traffic and Revenue Trends

The following three sections provide: (1) an overview of system wide transaction trends since 1959; (2) a discussion of events that have triggered declines in annual transactions and/or sharp increases in annual revenues; and (3) historical transaction trends by route.

#### Historical Trends 1959 - 2012

The Illinois Tollway opened in 1958 with three routes. In subsequent years, one completely new route has been added and a 69-mile extension of the Reagan Memorial Tollway has opened, bringing the total miles operated by the Tollway to 286. A summary of the routes is illustrated in Table 2-1.

	Former Tollway			
Tollway Route	Route Name	Route Number	Dates Opened	Length (miles)
Jane Addams Memorial	Northwest	I-90	Sept. 1958	78
Tri-State		I-94, I-294 and I-80	Sept. 1958	82
Reagan Memorial	East-West	I-88	Sept. 1958,	96
			Nov. 1974	
Veterans Memorial	North-South	I-355	Dec. 1989,	30
			Nov. 2007	
TOTAL:				286

Table 2-1: Tollway Routes and Lengths (2012)

Figure 2-1, Table 2-2, and Table 2-3 provide the annual transactions and toll revenue on the Illinois Tollway from the Tollway's first full-year of operation in 1959 through 2012. Historical revenues are recorded by the Illinois Tollway as "toll revenues." Toll revenues are audited revenues and include only those revenues that were actually collected over the course of the year. The source of toll revenues is the Illinois Tollway Comprehensive Annual Financial Report (CAFR).

Over the course of the Tollway's 54-year history, transactions have increased steadily with few year-over-year declines. However, the rate of transaction growth has slowed as the Tollway's service area matures. The average annual increase in transactions over the entire 54-year period is 5.7 percent, while transaction growth has slowed to an average of 3.1 percent per year over the past 30 years (1982-2012). In the last five years (2007-2012), average annual transaction growth



has slowed further to 0.4 percent. In five of the past 10 years, including 2012, annual transactions declined from their previous year. These declines were due to factors such as toll rate increases, plaza reconfiguration, and the national recession. System-wide transactions reached an all-time high at 832.8 million in 2011. Transactions declined 3.5 percent in 2012 due to the passenger car toll rate increase.

Annual toll revenues have displayed a growth pattern similar to transactions, but have generally grown at twice the rate due to periodic rate increases. Over the 54-year life of the Tollway, revenue increased an average of 8.1 percent per year, slowing to 7.7 percent per year over the past 30 years (1982-2012). Revenue grew only 2.8 percent per year from 2005 to 2011, but, due to the PC rate adjustment, grew 41.3 percent in 2012.

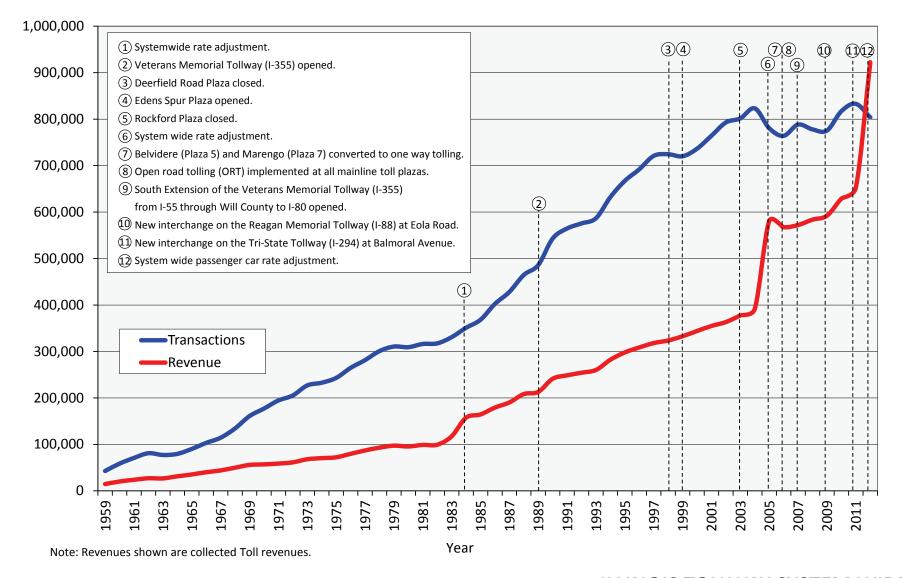
Table 2-4 presents Tollway system wide monthly transactions by passenger cars and commercial vehicles since 2008. Passenger car transactions have increased each year between 2008 and 2011. Commercial vehicle transactions decreased in 2009 before increasing at a pace higher than the passenger car transactions between 2009 and 2011. In 2012, following the toll rate change passenger car transactions decreased 4.2 percent. However, commercial vehicle transactions increased 2.8 percent over 2011.

### **Events Affecting Transactions and Revenue**

A major factor limiting traffic on any tolled route is the availability of alternate, toll-free routes. For the rural sections of the Illinois Tollway, there are few alternatives. Chicago-based long distance travelers going to Milwaukee, Madison, or Minneapolis (and vice versa) must use the Tollway if they'd like to stay on the most direct Interstate routes. The northern Tri-State and western Jane Addams have high market shares for this reason. The western Reagan, however, merges with a parallel toll-free route (I-80) near the Iowa border. This gives drivers wishing to bypass more urban sections of the Tollway little reason to take I-88. As a result, the suburban section of I-88 has about a 30 percent market share and this climbs to only 45 percent in the rural western section.

The most heavily traveled section of the Tollway, the central Tri-State, carries nearly one third of the north-south traffic in the southwestern suburbs. Additionally, the Veterans Memorial Tollway carries a quarter of the same traffic, giving the Tollway a 58 percent market share for the corridor, largely made up of suburb to suburb commuters. Table 2-5 summarizes the Illinois Tollway's market share for sections of each route. Note that only routes with average daily traffic over 10,000 vehicles were considered for this analysis. The locations of the screenlines defined for the market share analysis are illustrated in Figure 2-2.







ILLINOIS TOLLWAY SYSTEM WIDE ANNUAL TRANSACTIONS AND TOLL REVENUE (in millions)

Table 2-2: Illinois Tollway System Wide Annual Transactions (thousands)

37,884 72,721 146,476 160,916	- 13.9% 15.0%	Vehicles 5,053 7,005 14,488	- 6.8% 15.6%	<b>Total</b> 42,937 79,726 160,964	- 13.2%
146,476	15.0%				
-		14,488	15.6%	160.064	
160,916				100,904	15.1%
	9.9%	16,187	11.7%	177,103	10.0%
216,180	6.1%	26,914	10.7%	243,094	6.5%
269,106	4.5%	40,183	8.3%	309,289	4.9%
278,508	1.7%	38,993	-1.5%	317,501	1.3%
290,687	4.4%	40,116	2.9%	330,803	4.2%
324,673	3.8%	43,543	1.6%	368,216	3.5%
428,745	6.4%	57,193	5.6%	485,938	6.3%
485,085	8.4%	57,962	5.9%	543,047	8.1%
597,026	4.2%	70,179	3.9%	667,205	4.2%
664,002	2.1%	72,308	0.6%	736,310	2.0%
687,856	3.6%	76,429	5.7%	764,285	3.8%
715,073	4.0%	77,763	1.7%	792,836	3.7%
693,507	-3.0%	108,096	39.0%	801,603	1.1%
714,120	3.0%	109,025	0.9%	823,145	2.7%
695,378	-2.6%	85,068	-22.0%	780,446	-5.2%
678,535	-2.4%	85,590	0.6%	764,125	-2.1%
696,055	2.6%	92,237	7.8%	788,292	3.2%
688,516	-1.1%	89,366	-3.1%	777,882	-1.3%
694,837	0.9%	80,516	-9.9%	775,353	-0.3%
730,797	5.2%	86,286	7.2%	817,083	5.4%
743,195	1.7%	89,633	3.9%	832,828	1.9%
711,680	-4.2%	92,100	2.8%	803,780	-3.5%
	9.8%		10.4%		9.9%
	6.1%		3.7%		5.8%
	3.2%		2.2%		3.1%
	1.0%		1.8%		1.0%
	0.9%		3.3%		1.2%
	1.0%		0.3%		0.9%
	5.7%		5.6%		5.7%
	278,508 290,687 324,673 428,745 485,085 597,026 664,002 687,856 715,073 693,507 714,120 695,378 678,535 696,055 688,516 694,837 730,797 743,195	278,508	278,508       1.7%       38,993         290,687       4.4%       40,116         324,673       3.8%       43,543         428,745       6.4%       57,193         485,085       8.4%       57,962         597,026       4.2%       70,179         664,002       2.1%       72,308         687,856       3.6%       76,429         715,073       4.0%       77,763         693,507       -3.0%       108,096         714,120       3.0%       109,025         695,378       -2.6%       85,068         678,535       -2.4%       85,590         696,055       2.6%       92,237         688,516       -1.1%       89,366         694,837       0.9%       80,516         730,797       5.2%       86,286         743,195       1.7%       89,633         711,680       -4.2%       92,100         9.8%       6.1%         3.2%       1.0%         0.9%       1.0%         0.9%       1.0%         5.7%       5.7%	278,508       1.7%       38,993       -1.5%         290,687       4.4%       40,116       2.9%         324,673       3.8%       43,543       1.6%         428,745       6.4%       57,193       5.6%         485,085       8.4%       57,962       5.9%         597,026       4.2%       70,179       3.9%         664,002       2.1%       72,308       0.6%         687,856       3.6%       76,429       5.7%         715,073       4.0%       77,763       1.7%         693,507       -3.0%       108,096       39.0%         714,120       3.0%       109,025       0.9%         695,378       -2.6%       85,068       -22.0%         678,535       -2.4%       85,590       0.6%         696,055       2.6%       92,237       7.8%         688,516       -1.1%       89,366       -3.1%         694,837       0.9%       80,516       -9.9%         743,195       1.7%       89,633       3.9%         711,680       -4.2%       92,100       2.8%         9.8%       10.4%       6.1%       3.7%         3.2%       2.2%	278,508         1.7%         38,993         -1.5%         317,501           290,687         4.4%         40,116         2.9%         330,803           324,673         3.8%         43,543         1.6%         368,216           428,745         6.4%         57,193         5.6%         485,938           485,085         8.4%         57,962         5.9%         543,047           597,026         4.2%         70,179         3.9%         667,205           664,002         2.1%         72,308         0.6%         736,310           687,856         3.6%         76,429         5.7%         764,285           715,073         4.0%         77,763         1.7%         792,836           693,507         -3.0%         108,096         39.0%         801,603           714,120         3.0%         109,025         0.9%         823,145           695,378         -2.6%         85,068         -22.0%         780,446           678,535         -2.4%         85,590         0.6%         764,125           696,055         2.6%         92,237         7.8%         788,292           688,516         -1.1%         89,366         -3.1%         7



Table 2-3: Illinois Tollway System Wide Toll Revenue (thousands)(1)

Year	Passenger	AADC	Commercial	A A D.C.2	Total	A A DC2
1959	<b>Cars</b> \$11,943	AAPC	\$2,593	AAPC2	\$14,536	AAPC3
1964	26,284	17.1%	4,888	13.5%	31,172	16.5%
1969	46,872	12.3%	8,803	12.5%	55,675	12.3%
1970		1.5%	9,343	6.1%	·	2.2%
	47,565	4.3%		7.3%	56,908	4.8%
1975	58,784	4.5%	13,277	10.8%	72,061	5.8%
1980	73,248		22,204		95,452	
1982 1983 <sup>(2)</sup>	76,004	1.9%	23,148	2.1%	99,152	1.9%
	88,074	15.9%	29,154	25.9%	117,228	18.2%
1985	120,397	10.4%	43,901	14.6%	164,298	11.5%
1989 <sup>(3)</sup>	155,394	10.8%	57,387	13.8%	212,781	11.5%
1990	183,237	8.8%	57,842	5.7%	241,079	8.0%
1995	227,519	4.4%	70,389	4.0%	297,908	4.3%
2000	268,277	3.4%	75,668	1.5%	343,945	2.9%
2001	276,724	3.1%	78,050	3.1%	354,774	3.1%
2002	276,763	0.0%	86,472	10.8%	363,235	2.4%
2003	275,751	-0.4%	101,703	17.6%	377,454	3.9%
2004	287,218	4.2%	104,368	2.6%	391,586	3.7%
2005 (4)	341,352	18.8%	239,090	129.1%	580,442	48.2%
2006 (5)	324,556	-4.9%	242,943	1.6%	567,499	-2.2%
2007 <sup>(6)</sup>	321,008	-1.1%	251,085	3.4%	572,093	0.8%
2008	335,653	4.6%	247,994	-1.2%	583,647	2.0%
2009 <sup>(7)</sup>	334,520	-0.3%	257,543	3.9%	592,063	1.4%
2010	348,946	4.3%	279,808	8.6%	628,754	6.2%
2011 <sup>(8)</sup>	354,186	1.5%	298,488	6.7%	652,674	3.8%
2012 <sup>(9)</sup>	615,957	73.9%	306,433	2.7%	922,390	41.3%
Growth rates (AAPC)						
1959 - 1980		9.0%		10.8%		9.4%
1980 - 1990		9.6%		10.0%		9.7%
1990 - 2000		3.9%		2.7%		3.6%
2000 - 2010		2.7%		14.0%		6.2%
2000 - 2005		4.9%		25.9%		11.0%
2005 - 2010		0.4%		3.2%		1.6%
1959 - 2012		7.7%		9.4%		8.1%

<sup>(1)</sup> Collected Revenue. Source: 2011 Illinois Tollway Comprehensive Annual Financial Report (CAFR).

<sup>(8)</sup> New interchange on the Tri-State Tollway (I-294) at Balmoral Avenue
(9) Systemwide PC Rate adjustment. 2012 revenues are unaudited and preliminary. Numbers may not add due to rounding.



<sup>(</sup>a) System wide Rate adjustment
(b) System wide Rate adjustment
(c) System wide Rate adjustment
(d) System wide Rate adjustment
(e) System wide Rate adjustment
(f) Open Road Tolling (ORT) implemented at all 21 Mainline Toll Plazas

<sup>(6)</sup> South Extension of the Veterans Memorial Tollway (I-355) from I-55 through Will County to I-80

<sup>(7)</sup> New interchange on the Reagan Memorial Tollway (I-88) at Eola Road

**Table 2-4: Tollway Systemwide Monthly Transactions** 

Passenger		%		%		%		%	
Cars	2008	change	2009	change	2010	change	2011	change	2012
January	54,821,046	-5.6%	51,740,970	4.4%	54,033,484	4.2%	56,289,171	-5.8%	53,021,460
February	51,475,286	-1.9%	50,499,536	2.9%	51,950,013	-2.6%	50,575,807	5.2%	53,212,597
March	58,267,604	-1.5%	57,375,276	6.2%	60,941,992	1.7%	62,008,026	-5.0%	58,925,145
April	57,515,455	-0.1%	57,480,303	5.5%	60,656,140	0.0%	60,685,843	-4.0%	58,229,800
May	60,372,586	0.0%	60,396,574	4.1%	62,901,711	1.1%	63,593,297	-1.3%	62,745,789
June	59,055,307	2.5%	60,506,841	4.8%	63,438,171	3.0%	65,310,702	-3.6%	62,945,774
July	61,554,733	2.4%	63,010,983	4.6%	65,928,818	1.7%	67,022,455	-5.2%	63,558,466
August	62,001,983	0.1%	62,090,452	7.2%	66,532,858	2.1%	67,929,357	-5.1%	64,439,178
September	55,747,054	4.9%	58,497,941	5.4%	61,664,717	2.2%	63,037,690	-6.8%	58,731,834
October	59,458,620	0.9%	59,982,684	6.1%	63,666,515	2.1%	65,031,103	-5.7%	61,305,386
November	54,939,008	3.5%	56,867,755	5.8%	60,168,880	1.2%	60,901,622	-5.1%	57,806,076
December	53,307,585	5.8%	56,387,770	4.5%	58,913,509	3.2%	60,809,951	-6.7%	56,758,914
Total	688,516,267	0.9%	694,837,085	5.2%	730,796,808	1.7%	743,195,024	-4.2%	711,680,419
Commercial		%		%		%		%	
Vehicles	2008	change	2009	change	2010	change	2011	change	2012
January	7,327,326	-15.3%	6,203,391	-2.9%	6,021,404	9.5%	6,593,821	5.4%	6,951,811
February	6,927,459	-16.1%	5,811,290	2.1%	5,936,152	4.0%	6,172,522	11.7%	6,893,719
March	7,236,961	-10.3%	6,490,721	8.8%	7,059,265	5.8%	7,471,063	2.6%	7,664,568
April	7,693,855	-14.5%	6,581,032	9.5%	7,205,891	-0.7%	7,157,949	5.3%	7,540,221
May	7,971,355	-15.3%	6,749,228	7.6%	7,265,292	4.8%	7,614,073	8.0%	8,222,378
June	7,890,076	-10.3%	7,074,347	10.4%	7,812,632	3.5%	8,084,392	0.0%	8,083,507
July	8,019,285	-10.0%	7,217,704	3.7%	7,484,760	2.3%	7,660,273	3.1%	7,894,897
	7,863,773	-9.9%	7,088,808	12.5%	7,975,176	5.0%	8,374,400	1.5%	8,502,962
August									
August September	7,518,918	-5.8%	7,083,042	9.2%	7,732,186	1.5%	7,846,944	-3.7%	7,558,449
-		-5.8% -9.2%		9.2% 6.8%	7,732,186 7,726,986	1.5% 3.7%	7,846,944 8,015,563	-3.7% 4.9%	7,558,449 8,405,281
September	7,518,918		7,083,042						
September October	7,518,918 7,961,774	-9.2%	7,083,042 7,233,212	6.8%	7,726,986	3.7%	8,015,563	4.9%	8,405,281
September October November	7,518,918 7,961,774 6,550,262	-9.2% -0.9%	7,083,042 7,233,212 6,494,011	6.8% 10.5%	7,726,986 7,174,526	3.7% 4.8%	8,015,563 7,521,041	4.9% 1.2%	8,405,281 7,613,309

Table 2-5: Illinois Tollway Market Share across Select Screenlines

Screenline		Average Daily	Market
Number	Route	Traffic	Share
1	IL 83	45,500	15%
(Northern	IL 21	34,200	11%
Tri-State)	I-94	140,250	46%
	IL 43	15,500	5%
	US 41	54,600	18%
	Sheridan Rd.	<u>15,100</u>	5%
	Total	305,150	
2	Bloomingdale Rd.	14,200	1%
(Central	IL 5	11,500	1%
Tri-State)	I-355	126,390	11%
	IL 53	15,500	1%
	N Addison Rd.	13,000	1%
	IL 83	49,300	4%
	N York St.	18,300	2%
	I-290	138,300	12%
	I-294	145,410	13%
	N Wolf Rd.	11,300	1%
	N Mannheim Rd.	35,900	3%
	N 25th Ave	17,700	2%
	IL 171	27,600	2%
	N Harlem St	28,800	2%
	N Oak Park Ave	10,700	1%
	N Narragansett Ave	12,500	1%
	N Austin Ave	17,700	2%
	N Central Ave	22,000	2%
	N Laramie Ave	14,000	1%
	N Cicero Ave	27,900	2%
	N Pulaski Rd	17,400	2%
	N Kedzie Ave	13,100	1%
	N Western Ave	38,900	3%
	N Damen Ave	12,500	1%
	N Ashland Ave	27,200	2%
	I-90	273,400	24%
	N Halsted St	15,600	1%
	Total	1,156,100	
1			

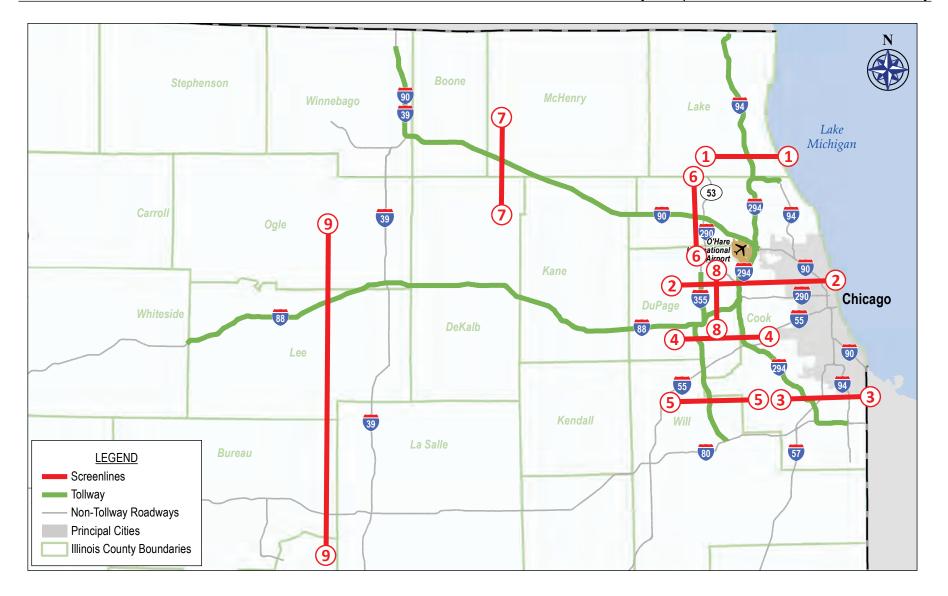
Screenline Number	Route	Average Daily Traffic	Market Share
3	IL 43	32,200	6%
(Southern Tri-State /	Ridgeland Ave IL 50/83 (Cicero Ave)	19,300 34,500	3% 6%
Northern	I-294	104,830	19%
Veterans	S Pulaski Rd	24,300	4%
Memorial)	S Kedzie Ave	15,200	3%
	I-57	115,200	21%
	S Ashland Ave	15,600	3%
	IL 1 (S Halsted St)	17,600	3%
	S Wentworth Ave	12,400	2%
	I-94	133,700	24%
	S Torrence Ave	19,200	3%
	Burnham Ave	11,600	2%
	Total	555,630	
4	College Rd.	14,900	3%
(Northern	IL 53	28,800	5%
Veterans	I-355	139,980	26%
Memorial)	Belmont Rd	16,900	3%
	Main St	16,900	3%
	Fairview Ave	12,900	2%
	S Cass Ave	21,800	4%
	IL 83	55,000	10%
	I-294	175,200	32%
	Wolf Rd	10,800	2%
	LaGrange Rd	34,300	6%
	East Ave	12,000	2%
	Total	539,480	

Table 2-5: Illinois Tollway Market Share across Select Screenlines (Continued)

Screenline Number	Route	Average Daily Traffic	Market Share
5	N Independence Blvd	25,600	16%
(South Veterans	New Ave <i>I-355</i>	11,700 <b>58,480</b>	7% <b>35%</b>
Extension)	S Bell Rd	15,900	10%
	Wolf Road	11,200	7%
	96th Ave (US 45)	41,900	25%
	Total	164,780	
6	W Northwest Hwy	28,900	6%
(Eastern	W Palatine Rd	11,300	2%
Jane	Euclid Ave	22,900	5%
Addams)	E Algonquin Rd/IL 62	33,200	7%
	<i>I-90</i>	157,070	32%
	N Wiley Rd	15,200	3%
	E Golf Rd (IL 58)	44,100	9%
	E Higgins Rd (IL 72)	43,600	9%
	E Schaumburg Rd	26,000	5%
	Wise Rd	11,800	2%
	E Nerge Rd	16,100	3%
	Elgin O'Hare Expy W	<u>78,100</u>	16%
	Total	488,270	

Screenline Number	Route	Average Daily Traffic	Market Share
7	Ulysses S Grant		
(Western Jane	Memorial Hwy (US 20)	12,200 <b>44,700</b>	21% <b>79%</b>
Addams)	Total	56,900	
8	W North Ave	36,900	10%
(Eastern	W St Charles Rd	14,200	4%
Reagan	IL 38	44,600	13%
Memorial)	IL 56	47,200	13%
	I-88	159,960	45%
	Oak Brook Rd	22,000	6%
	Ogden Ave (IL 34)	29,300	8%
	Total	354,160	
9	I-88	15,060	30%
(Western	I-80	23,600	47%
Reagan	US 6	<u>11,500</u>	23%
Memorial)	Total	50,160	







Although the Illinois Tollway has generally realized steady growth in transactions and revenue, a limited number of events have triggered small year-over-year declines in annual transactions and/or double-digit increases in revenue. Transaction declines have occurred in six of the past 30 years, with five occurrences within the past decade, ranging in magnitude from -0.3 percent to -5.2 percent. Conversely, four years have realized double-digit revenue growth, ranging in magnitude from +13.3 percent to +48.2 percent. Each decline/surge has occurred for at least one of the following five reasons:

- 1. Toll Rate Increases
- 2. Plaza Configuration Changes
- 3. System Additions: Routes/Capacity
- 4. Construction Impacts
- 5. 2007-2009 Economic Recession

At 5.2 percent, the 2005 toll rate increase caused the largest year-to-year decline in transactions that the Tollway has ever experienced. The following year, transactions declined due to plaza reconfiguration. Plaza 5 (Belvidere) and Plaza 7 (Marengo) were both converted to one way tolling in 2006. The toll rate at each plaza was doubled, so even though transactions declined by more than 14 million, there was no associated loss of revenue. Plaza reconfiguration also led to a decline in transactions in 1999 when the mainline Deerfield Plaza closed, and was replaced by the Edens Spur Plaza and four ramp plazas. In 2008 and 2009, transactions decreased 1.3 and 0.3 percent, respectively, due to construction on large sections of the system along with the national recession. The most recent decrease of 3.5 percent was due to the PC toll rate increase in 2012.

The Tollway enjoyed double-digit revenue increases in 1983, 1984, 1990, 2005, and 2012. The Tollway raised toll rates in October 1983, which caused an increase of 18.2 percent in that year, plus another 34.2 percent in the next year. The 2005 rate increase occurred in January, leading to revenue growth of 48.2 percent for the year. Similarly, the 2012 PC rate increase led to annual revenue growth of 41.3 percent. Finally, the Veteran's Memorial Tollway was opened in December 1989, which caused revenue to grow 13.3 percent in 1990. Transactions also increased 11.8 percent as the new route added 17.5 mainline miles to the system.

#### 1. Toll Rate Increases

Illinois Tollway rates have been increased on three occasions in the last 30 years to help pay for system additions and improvements. Table 2-6 summarizes these rate increases and their effect on passenger cars (PCs) and commercial vehicles (i.e., trucks) (CVs), while Table 2-7 shows toll rates at a typical mainline plaza throughout the system's history.

The October 1, 1983, toll rate increase did not cause a year-over-year decline in transactions. However, the toll increase sharply increased year-over-year revenues in two consecutive calendar years. In 1983, with the higher toll rate in place for the final three months of the year, toll revenues increased by 18.2 percent. The following year (1984), revenues increased 34.2 percent. Annual toll revenues increased by a total of 59 percent between 1982 and 1984.

Table 2-6: Toll Rate Increases for 1983-2012

Year	Passenger Cars	Commercial Vehicles
1983	<ul> <li>33 percent Increase.</li> </ul>	<ul> <li>33 percent increase.</li> </ul>
	<ul> <li>Tolls for passenger cars paying with I-PASS were unchanged.</li> </ul>	<ul> <li>Number of commercial vehicle rate classes was reduced from 9 to 3.</li> </ul>
2005	<ul> <li>Tolls for passenger cars paying with cash were doubled (100 percent increase).</li> </ul>	<ul> <li>Increases ranged from 125 percent to 275 percent.</li> </ul>
		<ul> <li>Rates for 5-axle trucks increased</li> <li>220 percent.</li> </ul>
		<ul> <li>During Overnight hours (10:00 PM - 6:00 AM), rates are discounted</li> <li>25 percent.</li> </ul>
2012	<ul> <li>Tolls for all passenger cars increased approximately 87 percent from 2005 rates.</li> </ul>	<ul><li>No rate changes.</li></ul>

Table 2-7: Typical Historic Mainline Plaza Toll(1)

Period	Passenger Car	5-Axle Truck
1959-1963	\$0.30	\$0.50
1964-1970	0.35	0.75
1971-1983	0.30	0.75
1983-2004	0.40	1.25
2005-2011 Discount	0.40	3.00
2005-2011 Non-Discount	0.80	4.00
Current Discount	0.75	3.00
Current Non-Discount	1.50	4.00

<sup>(1)</sup> Typical rates at mainline plazas on Jane Addams, Tri-State, and Reagan Memorial Tollways.

The January 1, 2005 toll rate increase for cash-paying passenger cars minimally impacted passenger car transactions, causing a -2.6 percent decline among passenger cars, but causing no effect on I-PASS users. I-PASS usage rates had climbed to 74 percent at the time of the 2005 increase; therefore, the increase only impacted 26 percent of transactions. However, tolls increased for all commercial vehicle transactions, regardless of payment type or time-of-day. Along with the rate increase, the Tollway simplified their rate structure in 2005, reducing the

<sup>(2)</sup> Passenger cars equipped with I-PASS pay the discount rate, and cash users pay the non-discount rate.

<sup>(3)</sup> All commercial vehicles pay the non-discount rate during daytime hours. Commercial vehicles pay the discount rate between 10 p.m. and 6 a.m.

previous 10 classes into four rate tiers. Table 1-1 in Chapter 1 shows vehicle classifications under both systems.

The simplification led to classifying any vehicle/trailer combination with three or more axles as a commercial vehicle. Now, a pickup truck towing a three-axle boat trailer pays the same toll as a five-axle truck.

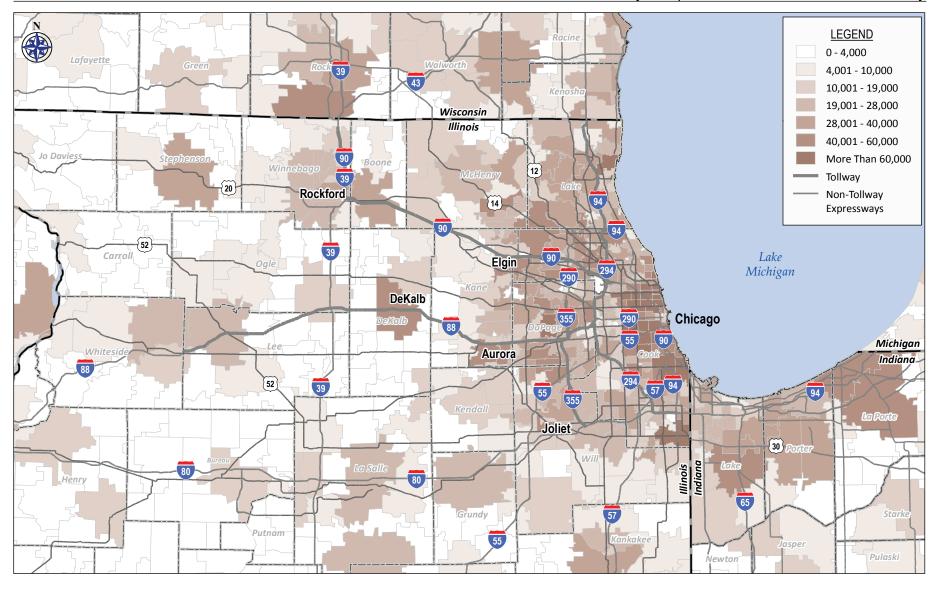
Following the January 1, 2012 toll rate increase, passenger car transactions fell by 4.2 percent for the year, while the number of commercial vehicles (which were unaffected by the rate increase) *increased* 2.8 percent since 2011. It should be noted that external factors, including but not limited to, economic conditions and construction on Tollway and local routes, also impact system performance. Passenger car toll revenues have increased 73.9 percent in 2012 due to the toll rate increase, while commercial vehicle toll revenues have reported increases in line with transaction growth of approximately 2.7 percent. Total 2012 revenues increased 41.3 percent.

#### I-PASS Usage

The 2005 toll rate increases were structured to increase total toll revenues, while strongly encouraging drivers to pay tolls electronically using I-PASS transponders. Under the 2005 toll increase, rates for passenger cars paying with cash doubled, but remained unchanged for passenger cars paying with I-PASS. Commercial vehicle rates roughly tripled. Although there is no I-PASS / cash toll rate differential for CVs, I-PASS usage among CVs has consistently been on-par or slightly above PC I-PASS usage. With the advent of Open Road Tolling (ORT) at all mainline toll plazas, CV users have found I-PASS usage to be more convenient payment method that helps reduce fuel costs, and the I-PASS website allows toll receipts to be issued and toll expenses to be thoroughly tracked. CV drivers were also encouraged to obtain I-PASS transponders by offering daytime off-peak discounts of 25 percent for CV tolls paid with I-PASS. This CV discount expired at the end of 2008.

As illustrated by Figure 2-4, the percentage of transactions paid with I-PASS sharply increased in late 2004, leading-up to the toll rate increase. I-PASS payment rates in August 2004 were just 45 percent for passenger cars and 50 percent for commercial vehicles. By January 2005, the rates had increased by 29 and 20 percentage points respectively, totaling 74 percent participation for passenger cars and 70 percent for commercial vehicles. I-PASS rates have continued to trend slowly upward. By 2011, I-PASS rates reached 84 percent for passenger cars and 86 percent for commercial vehicles, realizing a further increase of 10 and 16 percentage points respectively since January 2005. Passenger car I-PASS payment rates saw a jump of approximately 2.6 percent in January 2012 over January 2011 rates. Customers switching from cash to I-PASS at this time essentially eliminated any increase in tolls they paid. Since then, PC I-PASS rates followed their typical monthly trend.

The peak-hour I-PASS rates at some commuter plazas (such as Plaza 61 on I-88 in Aurora) well exceed 90 percent today. Two recently constructed interchanges (Eola Road on I-88 and Balmoral Avenue on I-294) only accept I-PASS electronic toll payments.





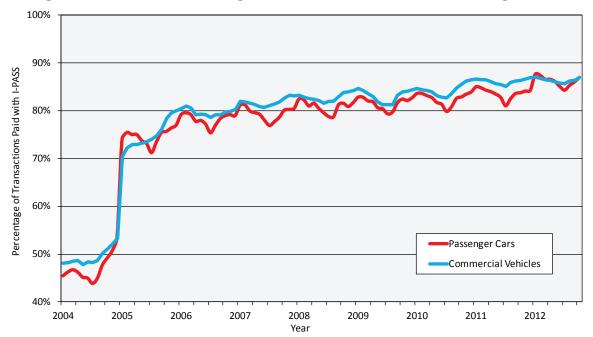


Figure 2-4: 2004-2012 Percentage of Transactions Paid with I-PASS Transponders

In 2011, the Illinois Tollway had the highest rate of Electronic Toll Collection (ETC) of any toll system in the country that accepts cash. Table 2-8 shows the ETC usage rates for the 15 highest revenue toll agencies in the United States. The ETC (primarily I-PASS) usage on the Illinois Tollway is 4.5 percentage points higher than the second-ranking agency, and 15 percentage points higher than the average ETC rate among the other 14 agencies.

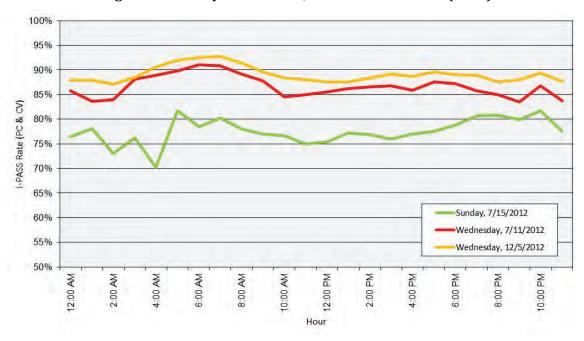
Despite having an overall usage rate over 86 percent, I-PASS usage still varies by month. In the summer, when there is more recreational traffic on the system, I-PASS usage is lower because these travelers are not regular users and are more likely to pay with cash. Summer weekends have the lowest I-PASS usage because not as many commuters are using the system. Conversely, winter weekdays report the highest usage since users are mostly comprised of commuters. Below, Figure 2-5 shows I-PASS usage at a single plaza on three days that vary by season and day-of-week. The average toll paid by passenger cars varies with fluctuating I-PASS usage. In July 2012, the average passenger car transaction was four cents higher than in January.



Table 2-8: ETC Usage Rates on Major U.S. Toll Systems

ETC Usage Rank	ETC Usage Rates	Toll Agency Name	Name of ETC System
1	83.9%	Illinois Tollway	I-PASS/E-ZPass
2	79.4%	Metropolitan Transportation Authority (NY)	E-ZPass
3	78.7%	North Texas Tollway Authority System	TollTag
4	77.5%	Port Authority of New York and New Jersey	E-ZPass
5	75.6%	Florida Turnpike	SunPass
6	74.0%	New Jersey Turnpike Authority	E-ZPass
7	72.8%	Indiana Toll Road Concession Company	I-Zoom/E-ZPass
8	71.0%	Harris County Toll Road Authority (Houston)	E-Z Tag
9	71.0%	Massachusetts Department of Transportation	Fast Lane/E-ZPass
10	68.6%	Oklahoma Turnpike Authority	PIKEPASS
11	66.8%	New York State Thruway Authority	E-ZPass
12	66.1%	Maryland Transportation Authority	E-ZPass
13	62.3%	Pennsylvania Turnpike Commission	E-ZPass
14	58.3%	Bay Area Toll Authority	FasTrak
15	42.2%	Ohio Turnpike Commission	E-ZPass

Figure 2-5: Hourly I-PASS Rates, Plaza 35 Southbound (2012)



#### 2. Toll Plaza Configuration Changes

Two notable toll plaza reconfigurations have affected transactions and revenue on the Illinois Tollway, summarized in Table 2-9 below.

Year of Configuration Change	Route	Plazas Affected	Description of Change
1999	Tri-State (I-94)	24, 25, 26, 27, 28	Eliminated Mainline Plaza 25 in Deerfield, IL to relieve mainline congestion. In place of Plaza 25, added mainline plaza on Edens Spur (Plaza 24), and ramp toll plazas on ramps to/from the north at Lake-Cook Road (Plaza 26), Willow Road (Plaza 27) and Golf Road/IL58 (Plaza 28).
2006	Jane Addams Memorial (I-90)	5, 7	Mainline Plazas 5 and 7 are located 14.5-miles apart on I-90. Previously both plazas collected tolls in both directions of travel. To reduce congestion, toll collection was eliminated in one direction at each plaza (Plaza 5 collects westbound tolls only and Plaza 7 collects eastbound tolls only). In exchange, The toll at each plaza was doubled.

**Table 2-9: Toll Plaza Configuration Changes** 

Changes in the I-294 toll configuration briefly reduced revenues on the affected section of the Tri-State Tollway, but did not change the rate of transactions. Conversely, the 2006 toll configuration changes on I-90 did not affect revenues, since it did not affect the total toll charged to drivers on that segment of I-90, but it did cut the number of transactions processed at these two plazas approximately 50 percent, as compared to 2005. This configuration change reduced the number of system wide transactions by 14.1 million, or 1.9 percent of all Illinois Tollway transactions in 2006.

#### 3. System Additions (I-355)

The Veterans Memorial Tollway (designated Interstate 355), previously known as the North-South Tollway, opened in two phases. The 17.5-mile section from Army Trail Road to I-55 opened on December 24, 1989, while the 12.5-mile "I-355 South Extension" from I-55 to I-80 opened on November 11, 2007. The original section provided a 10 percent boost to total Tollway transactions in 1990. The opening of the I-355 South Extension siphoned some traffic away from the Tri-State Tollway and provided a net boost of approximately three percent to total Tollway transactions in 2008.

#### 4. Construction Impacts

In 2005, the Tollway embarked upon a capital improvement program known as the "Congestion Relief Program," that is expected to total approximately \$5.8 billion. The Congestion Relief Program consists of the following four components:

**I-355 South Extension:** Constructed 12.5-mile, six-lane extension of the Veterans Memorial Tollway (I-355) from I-55 south to I-80, which opened on November 11, 2007.

Open Road Tolling: Converted all 22 mainline barrier plazas to Open Road Tolling.



**Widening and Reconstruction:** Approximately 90 miles (31.5 percent) of the 286-mile system were widened and reconstructed between 2005 and 2010. Figure 2-6 illustrates the nine widened segments of the Tollway, which included portions of all four Tollway routes.

**Resurfacing/Rehabilitation:** Approximately 107 miles (37 percent) of the 286-mile system were resurfaced or rehabilitated. Table 2-10 identifies the seven major segments that were resurfaced or rehabilitated between 2008 and 2012.

Tollway Route Name	Interstate Number	Construction Limits	Length (miles)	<b>Construction Years</b>
Jane Addams Memorial	I-90	Barrington Road to Elgin Toll Plaza	17.3	2011
Jane Addams Memorial	I-90	US-20 (Marengo) to Genoa Road	9.5	2011
Tri-State (South)	I-294	95th Street to Balmoral	22.3	2012
Edens Spur (Tri-State)	I-94	Tri-State to Edens Expressway	5.0	2010-2011
Reagan Memorial	I-88	York Road to I-290	1.5	2008
Reagan Memorial	I-88	Deerpath Road to IL 251	38.1	2012
Veterans Memorial	I-355	I-55 to 75th Street & I-88 to Army Trail Road	13.0	2010

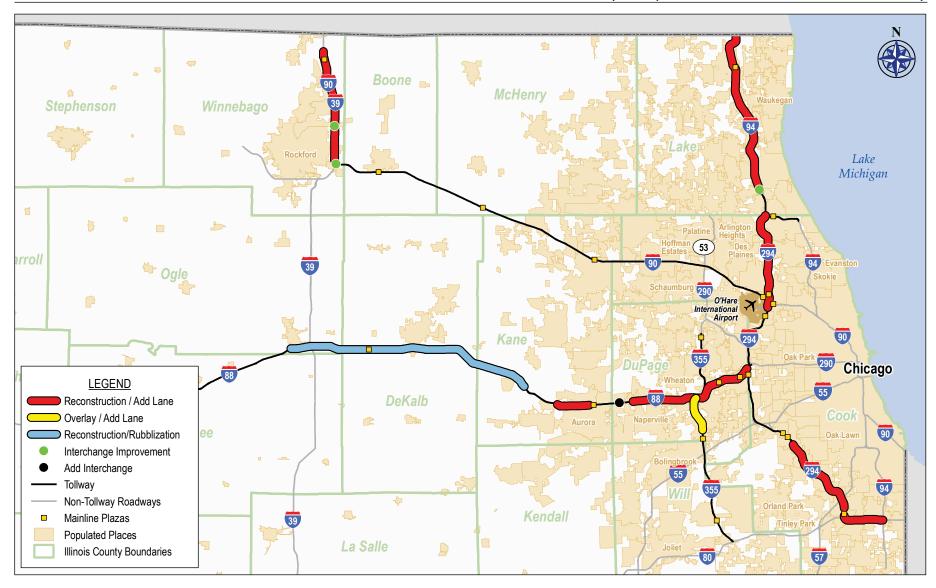
**Table 2-10: 2005-2012 Resurfacing and Rehabilitation Projects** 

As a new route, there were no construction impacts associated with the I-355 South Extension, with the exception of the reconstruction and enlargement of the existing I-355/I-55 interchange. The other projects described above provided significant impacts to traffic operations on the Tollway, reducing transactions on the affected segments. Year-over-year transactions declined by 5.2 percent and 2.1 percent, respectively, in 2005 and 2006, during the height of activity on the ORT Conversion project. These declines also coincided with the 2005 toll rate increase. The widening/reconstruction projects on the Tri-State and Reagan Memorial Tollways impacted traffic most significantly in 2008 and 2009, causing transaction declines of 1.3 percent and 0.3 percent, respectively. This period also coincided with the recent economic recession, which dampened travel demand locally and nationwide. Though these projects had negative short-term transaction and revenue impacts during construction, the projects ultimately resulted in increased capacity and improved travel conditions, allowing more vehicles to utilize the Tollway and raising the long-term transaction and revenue potential.

#### 5. 2007-2009 Economic Recession

The 2007-2009 recession caused a measureable downturn in transactions on the Illinois Tollway, particularly among commercial vehicles. In 2008, transactions decreased a modest 1.0 percent for PCs, and a more significant 3.1 percent for CVs. As mentioned above, some of these declines were in part a result of construction activity on the Illinois Tollway in 2008. In 2009, PC transactions increased a slight 0.9 percent, but CV transactions fell a dramatic 9.9 percent. By 2011, CV transactions increased 11.3 percent over the previous year, and have since recovered to 2008 levels.







# CONGESTION RELIEF PROGRAM CONSTRUCTION 2005-2009

## **Trends by Route**

Table 2-11 illustrates the average annual growth in transactions on each Tollway route by decade. The transaction growth rates of the four routes have varied slightly from one another.

Table 2-11: Illinois Tollway Transactions 10-Year Average Annual Growth Rates by Route

10-Year Time Period	Jane Addams Memorial Tollway I-90	Tri-State Tollway I-294/I-94	Reagan Memorial Tollway I-88	Veterans Memorial Tollway I-355
1960 to 1970	16.6%	10.3%	9.4%	-
			211,1	
1970 to 1980	5.1%	5.2%	10.0%	-
1980 to 1990	4.3%	4.4%	7.2%	-
1990 to 2000	3.9%	1.6%	3.7%	6.6%
2000 to 2010	-0.5%	0.4%	2.0%	4.2%

Table 2-12 demonstrates a more recent representation of the toll revenue on each Tollway route.

Table 2-12: Illinois Tollway Revenue by Route, 2008-2012 (1)

Tollway Route	2008	2009	2010	2011	2012 <sup>(2)</sup>
Jane Addams Memorial	\$130,330,170	\$129,393,684	\$134,547,830	\$133,508,804	\$187,798,195
Tri-State	\$257,016,724	\$258,652,734	\$284,968,358	\$297,392,236	\$404,538,318
Reagan Memorial	\$87,649,813	\$89,830,824	\$98,554,019	\$106,457,766	\$148,261,812
Veterans Memorial	\$108,373,220	\$113,822,688	\$110,331,081	\$114,928,084	\$181,286,829

<sup>(1)</sup> Collected revenue. Source: 2011 Illinois Tollway Comprehensive Annual Financial Report (CAFR).

Though revenue depends on more than just the number of transactions, it generally follows transaction trends, which are summarized by route below.

#### Jane Addams Memorial

Growth on the urbanized eastern section of the Jane Addams has leveled off in the past 10 years as growth has moved westward with development, past the suburbs and into exurbs. Since 1980, transactions at the Elgin plaza have grown an average of 4.2 percent per year, while transactions at the Devon Avenue and River Road plazas have grown 1.2 percent and 1.0 percent per year, respectively. Average daily transactions on the route are shown in Figure 2-7. The large decline in 2006 was due to plaza reconfiguration, which resulted in halving transactions at Plazas 5 and 7, but without any associated revenue loss, since the toll rate was doubled at those plazas. Monthly transactions since 2008 are presented in Table 2-13.



<sup>(2) 2012</sup> Revenues are unaudited and preliminary. Totals may not add due to rounding.

Table 2-13: Jane Addams Memorial Tollway Monthly Transactions

Passenger		%		%		%		%	
Cars	2008	change	2009	change	2010	change	2011	change	2012
January	12,226,261	-5.4%	11,562,113	2.5%	11,855,167	0.9%	11,957,856	-8.0%	11,000,948
February	11,444,958	-2.1%	11,206,538	1.0%	11,321,295	-6.0%	10,645,331	3.3%	11,001,861
March	13,048,058	-2.6%	12,705,982	3.0%	13,092,608	-0.8%	12,989,508	-6.7%	12,118,467
April	12,864,833	-0.3%	12,820,739	3.0%	13,199,891	-3.5%	12,734,886	-6.1%	11,963,079
May	13,683,253	-0.8%	13,572,162	1.9%	13,827,968	-4.9%	13,153,049	-3.1%	12,749,101
June	13,512,630	0.3%	13,548,345	2.0%	13,821,567	-3.6%	13,319,073	-1.9%	13,064,739
July	14,102,294	1.1%	14,254,158	2.8%	14,648,145	-6.7%	13,662,171	-0.8%	13,556,902
August	14,300,031	-1.8%	14,041,030	4.1%	14,623,666	-6.8%	13,632,279	0.0%	13,629,495
September	12,706,922	3.2%	13,109,936	1.4%	13,295,578	-5.7%	12,534,515	-2.2%	12,262,773
October	13,413,332	-1.1%	13,261,695	2.5%	13,593,544	-3.4%	13,138,119	-4.7%	12,517,782
November	12,392,818	0.8%	12,489,172	1.7%	12,700,222	-2.5%	12,387,162	-4.7%	11,802,051
December	11,938,154	3.3%	12,337,981	1.4%	12,509,867	0.6%	12,582,290	-6.1%	11,818,429
Total	155,633,544	-0.5%	154,909,851	2.3%	158,489,518	-3.6%	152,736,239	-3.4%	147,485,627
Commercial	2000	%	2000	%	2010	%	2011	%	2012
Vehicles	2008	change	2009	change	2010	change	2011	change	2012
January	1,597,318	-16.4%	1,335,420	-1.3%	1,318,678	6.0%	1,398,370	4.8%	1,465,077
February	1,510,315	-16.3%	1,264,480	1.8%	1,287,210	2.9%	1,325,152	9.8%	1,454,858
March	1,595,528	-9.4%	1,445,629	5.2%	1,520,375	5.4%	1,602,872	0.8%	1,615,344
April	1,698,418	-13.7%	1,464,973	5.8%	1,549,373	-1.5%	1,526,570	3.3%	1,576,240
May	1,772,303	-15.1%	1,504,061	4.3%	1,568,621	1.0%	1,584,088	9.1%	1,728,065
June	1,773,619	-11.4%	1,571,108	6.6%	1,675,510	-1.8%	1,645,938	4.6%	1,721,753
July	1,766,189	-8.9%	1,608,595	0.0%	1,608,208	-3.7%	1,549,475	10.9%	1,717,950
August	1,739,769	-9.0%	1,582,534	7.0%	1,693,935	-1.2%	1,674,363	10.3%	1,846,083
September	1,698,991	-7.1%	1,578,407	3.0%	1,625,752	-3.3%	1,571,757	3.5%	1,626,228
October	1,761,515	-9.9%	1,586,570	2.4%	1,624,644	0.8%	1,637,797	7.3%	1,757,982
November	1,440,529	-2.4%	1,406,225	7.0%	1,504,960	1.6%	1,528,837	2.3%	1,564,570
December	1,377,618	1.1%	1,392,574	2.5%	1,427,704	1.5%	1,448,627	-3.2%	1,402,038
Total	19,732,112	-10.1%	17,740,576	3.7%	18,404,970	0.5%	18,493,846	5.3%	19,476,188
All Vehicles Total	175,365,656	-1.5%	172,650,427	2.5%	176,894,488	-3.2%	171,230,085	-2.5%	166,961,815

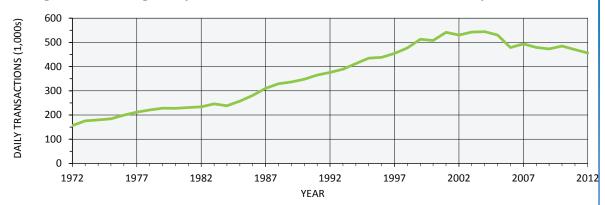


Figure 2-7: Average Daily Transactions, Jane Addams Memorial Tollway, 1972-2012

#### **Tri-State**

Since the Tollway opened, the Tri-State has remained the highest volume route. Though initially intended as a bypass of the Chicago metropolitan area, the Tri-State has since become a commuter route. As development around the corridor has matured, traffic volumes have stabilized, similar to the eastern Jane Addams. Daily transactions since 1980 are shown in Figure 2-8. Monthly transactions since 2008 are presented in Table 2-14.

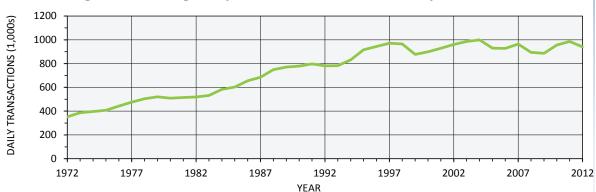


Figure 2-8: Average Daily Transactions, Tri-State Tollway, 1973-2012

In addition to serving as a commuter route, the Tri-State also carries significant heavy truck traffic. The southernmost five miles of I-294 are aligned with I-80, a national trucking route. Plaza 41, just north of the split with I-80, has by far the highest number of five-axle truck transactions on the entire system. In 2012, Plaza 41 had 55 percent more (2.1 million more) large truck transactions than any plaza on the other three Tollway routes.

Figure 2-9 illustrates the outsized proportion of commercial revenues that the Tollway derives from the Tri-State.



Table 2-14: Tri-State Tollway Monthly Transactions

Passenger		%		%		%		%	
Cars	2008	change	2009	change	2010	change	2011	change	2012
January	22,339,107	-7.1%	20,751,876	3.8%	21,542,251	6.3%	22,900,517	-4.4%	21,888,645
February	20,910,624	-3.0%	20,278,931	2.5%	20,780,215	-1.1%	20,557,304	6.6%	21,923,586
March	23,652,678	-2.0%	23,172,162	6.5%	24,681,176	3.1%	25,440,449	-3.7%	24,505,020
April	23,202,993	-0.1%	23,186,834	7.3%	24,889,327	-0.1%	24,870,476	-2.3%	24,299,559
May	24,429,173	0.1%	24,442,274	7.4%	26,263,070	0.3%	26,343,011	-0.2%	26,294,042
June	24,168,676	1.9%	24,631,004	9.3%	26,927,834	1.6%	27,348,896	-3.7%	26,334,517
July	25,247,141	1.9%	25,722,484	7.9%	27,761,068	2.8%	28,533,405	-7.0%	26,536,316
August	25,309,975	0.0%	25,302,799	9.9%	27,809,715	3.6%	28,797,446	-7.0%	26,768,268
September	22,416,113	5.3%	23,611,248	8.0%	25,506,615	3.7%	26,454,176	-9.1%	24,042,345
October	24,164,397	0.6%	24,309,933	8.9%	26,465,238	2.7%	27,180,676	-7.0%	25,286,138
November	22,228,452	3.0%	22,894,432	8.3%	24,792,776	1.9%	25,268,781	-5.7%	23,841,024
December	21,447,931	5.0%	22,514,090	6.5%	23,971,684	4.0%	24,939,903	-6.9%	23,215,247
Total	279,517,260	0.5%	280,818,067	7.3%	301,390,969	2.4%	308,635,040	-4.4%	294,934,707
Commercial		%		%		%		%	
Vehicles	2008	change	2009	change	2010	change	2011	change	2012
January	4,032,795	-17.1%	3,341,967	-1.9%	3,277,114	11.5%	3,654,427	4.6%	3,822,579
February	3,830,355	-18.0%	3,140,675	3.5%	3,251,988	5.1%	3,416,552	11.4%	3,805,841
March	3,962,355	-12.6%	3,464,566	11.9%	3,876,030	7.0%	4,148,294	1.7%	4,219,253
April	4,123,966	-15.8%	3,472,617	13.8%	3,952,813	-0.1%	3,947,928	4.2%	4,115,270
May	4,229,188	-16.8%	3,520,551	13.7%	4,002,985	3.8%	4,155,795	6.5%	4,426,781
June	4,188,010	-11.7%	3,698,558	17.1%	4,330,381	1.8%	4,406,592	-2.0%	4,316,717
July	4,254,338	-11.2%	3,777,923	8.9%	4,112,300	1.1%	4,157,065	0.2%	4,166,988
August	4,168,062	-10.2%	3,743,306	16.9%	4,376,606	3.8%	4,543,671	-1.7%	4,465,547
September	3,902,708	-4.4%	3,731,003	14.2%	4,261,512	0.1%	4,266,510	-7.4%	3,951,726
October	4,173,561	-7.2%	3,872,601	10.3%	4,270,598	1.8%	4,348,507	1.3%	4,406,470
November	3,482,635	0.1%	3,485,958	13.3%	3,951,122	4.0%	4,109,848	-1.5%	4,049,231
December	3,439,284	2.0%	3,509,027	9.1%	3,827,368	2.7%	3,931,346	-7.2%	3,649,187
Total	47,787,257	-10.5%	42,758,752	11.1%	47,490,817	3.4%	49,086,535	0.6%	49,395,590
All Vehicles Total	327,304,517	-1.1%	323,576,819	7.8%	348,881,786	2.5%	357,721,575	-3.7%	344,330,297



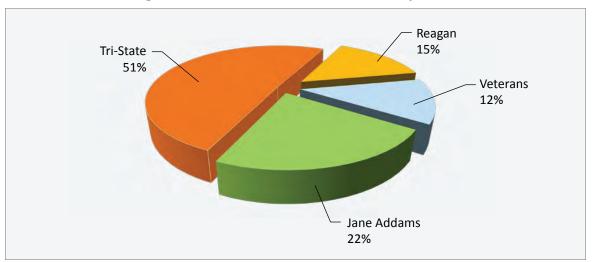


Figure 2-9: Commercial Vehicle Revenues by Route

#### **Reagan Memorial**

I-88 has generally experienced the highest growth rate of the three original Tollway routes, due to rapidly increasing population in the western suburbs, such as Naperville and Aurora, and employment along the "tech corridor" that flanks I-88. Since 1980, transactions on the route have nearly quadrupled. Figure 2-10 below shows transaction growth on the Reagan Memorial during that time.

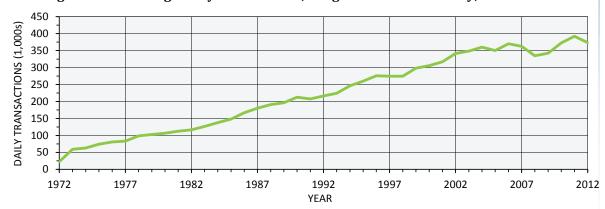


Figure 2-10: Average Daily Transactions, Reagan Memorial Tollway, 1973-2012

Construction related traffic declines were realized in 2005, 2008, and 2009. By 2010, construction was completed on the more heavily travelled eastern section, allowing traffic to return to preconstruction levels. In 2012, 17 percent of total Tollway transactions were experienced on the Reagan Memorial. Monthly transactions since 2008 are presented in Table 2-15.



Table 2-15: Reagan Memorial Tollway Monthly Transactions

Passenger		%		%		%		%	
Cars	2008	change	2009	change	2010	change	2011	change	2012
January	9,207,414	-8.1%	8,457,074	9.2%	9,230,973	7.3%	9,906,229	-4.3%	9,476,941
February	8,667,673	-3.6%	8,356,589	6.9%	8,934,234	0.4%	8,972,043	6.8%	9,579,526
March	9,813,740	-3.0%	9,518,677	10.3%	10,497,845	4.2%	10,942,337	-3.6%	10,548,555
April	9,554,830	-0.8%	9,482,409	8.6%	10,295,443	4.2%	10,730,947	-3.5%	10,352,167
May	9,846,809	0.1%	9,856,369	6.5%	10,499,494	7.4%	11,275,194	-2.1%	11,040,375
June	9,244,225	4.7%	9,674,687	8.3%	10,479,459	9.6%	11,482,970	-5.6%	10,835,782
July	9,691,776	3.0%	9,984,545	11.5%	11,133,152	4.6%	11,647,365	-7.1%	10,817,661
August	9,823,707	1.2%	9,941,118	15.8%	11,515,813	3.7%	11,946,654	-7.0%	11,107,931
September	8,951,784	5.9%	9,481,112	15.7%	10,969,950	2.5%	11,246,786	-8.2%	10,319,275
October	9,559,728	2.6%	9,807,512	14.9%	11,267,710	3.2%	11,632,542	-6.6%	10,864,723
November	8,903,487	6.3%	9,467,616	12.6%	10,661,912	2.1%	10,890,872	-5.2%	10,320,300
December	8,680,988	10.0%	9,544,913	8.8%	10,382,766	4.4%	10,844,052	-6.6%	10,126,787
Total	111,946,161	1.5%	113,572,621	10.8%	125,868,751	4.5%	131,517,991	-4.7%	125,390,023
Commercial		%		%		%		%	
Vehicles	2008	change	2009	change	2010	change	2011	change	2012
January	832,054	-15.9%	699,851	-2.4%	682,942	12.4%	767,705	10.4%	847,571
February	778,658	-15.9%	654,465	3.1%	674,740	6.5%	718,710	15.6%	831,052
March	813,989	-8.6%	743,889	8.8%	809,369	6.8%	864,456	7.2%	926,715
April	863,178	-12.4%	756,263	9.8%	830,485	1.7%	844,379	9.4%	923,464
May	889,464	-11.9%	783,395	7.3%	840,755	14.4%	961,581	5.1%	1,010,999
June	857,206	-5.8%	807,152	12.1%	904,958	17.0%	1,058,808	-6.7%	987,457
July	871,415	-7.3%	807,913	10.5%	892,875	14.5%	1,022,102	-7.1%	949,612
August	860,110	-7.4%	796,639	20.0%	956,051	17.8%	1,125,837	-8.4%	1,030,802
September	854,981	-6.2%	802,363	15.0%	922,447	11.8%	1,030,950	-9.0%	937,737
October	899,448	-9.6%	812,670	13.2%	919,776	12.4%	1,033,481	2.2%	1,056,482
November	728,650	0.5%	732,338	16.7%	854,928	10.6%	945,203	1.9%	962,946
December	711,738	4.1%	740,953	9.7%	812,997	7.6%	874,735	-4.1%	838,457
Total	9,960,891	-8.3%	9,137,891	10.6%	10,102,323	11.3%	11,247,947	0.5%	11,303,294
All Vehicles Total	121,907,052	0.7%	122,710,512	10.8%	135,971,074	5.0%	142,765,938	-4.3%	136,693,317

#### **Veterans Memorial**

Since 1990, I-355 (which opened on December 24, 1989) has experienced the highest growth rate in annual transactions. The route is used largely by suburb-to-suburb commuters and directly connects three major interstate highways – I-80, I-55 and I-88. With the completion of the south extension in 2007, the Veterans Memorial Tollway adds an additional route from I-80 to I-90 via interstate highway. This attracts long haul truckers looking to bypass more congested areas of the region. The south extension also opens up areas of Will County that are still being developed. Most of the Veterans Memorial growth, illustrated below in Figure 2-11, is a result of development at the south end of the route.

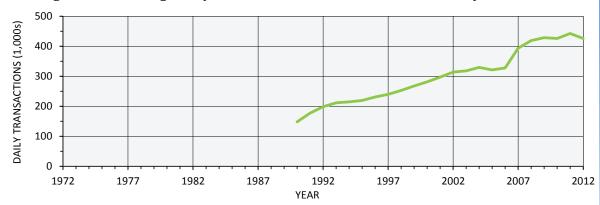


Figure 2-11: Average Daily Transactions, Veterans Memorial Tollway, 1990-2012

Monthly transactions since 2008 are presented in Table 2-16.



**Table 2-16: Veterans Memorial Tollway Monthly Transactions** 

Passenger		%		%		%		%	
Cars	2008	change	2009	change	2010	change	2011	change	2012
January	11,048,264	-0.7%	10,969,907	4.0%	11,405,093	1.0%	11,524,569	-7.5%	10,654,926
February	10,452,031	2.0%	10,657,478	2.4%	10,914,269	-4.7%	10,401,129	2.9%	10,707,624
March	11,753,128	1.9%	11,978,455	5.8%	12,670,363	-0.3%	12,635,732	-7.0%	11,753,103
April	11,892,799	0.8%	11,990,321	2.3%	12,271,479	0.6%	12,349,534	-5.9%	11,614,995
May	12,413,351	0.9%	12,525,769	-1.7%	12,311,179	4.1%	12,822,043	-1.2%	12,662,271
June	12,129,776	4.3%	12,652,805	-3.5%	12,209,311	7.8%	13,159,763	-3.4%	12,710,736
July	12,513,522	4.3%	13,049,796	-5.1%	12,386,453	6.4%	13,179,514	-4.0%	12,647,587
August	12,568,270	1.9%	12,805,505	-1.7%	12,583,664	7.7%	13,552,978	-4.6%	12,933,484
September	11,672,235	5.3%	12,295,645	-3.3%	11,892,574	7.6%	12,802,213	-5.4%	12,107,441
October	12,321,163	2.3%	12,603,544	-2.1%	12,340,023	6.0%	13,079,766	-3.4%	12,636,743
November	11,414,251	5.3%	12,016,535	0.0%	12,013,970	2.8%	12,354,807	-4.1%	11,842,701
December	11,240,512	6.7%	11,990,786	0.5%	12,049,192	3.3%	12,443,706	-6.8%	11,598,451
Total	141,419,302	2.9%	145,536,546	-0.3%	145,047,570	3.6%	150,305,754	-4.3%	143,870,062
Commercial	2000	%	2000	%	2010	%	2014	%	2042
Vehicles	2008	change	2009	change	2010	change	2011	change	2012
January	865,159	-4.5%	826,153	-10.1%	742,670	4.1%	773,319	5.6%	816,584
February	808,131	-7.0%	751,670	-3.9%	722,214	-1.4%	712,108	12.6%	801,968
March	865,089	-3.3%	836,637	2.0%	853,491	0.2%	855,441	5.6%	903,256
April	1,008,293	-12.0%	887,179	-1.6%	873,220	-3.9%	839,072	10.3%	925,247
May	1,080,400	-12.9%	941,221	-9.4%	852,931	7.0%	912,609	15.8%	1,056,533
June	1,071,241	-6.9%	997,529	-9.6%	901,783	7.9%	973,054	8.7%	1,057,580
July	1,127,343	-9.2%	1,023,273	-14.8%	871,377	6.9%	931,631	13.8%	1,060,347
August	1,095,832	-11.8%	966,329	-1.8%	948,584	8.6%	1,030,529	12.6%	1,160,530
September	1,062,238	-8.6%	971,269	-5.0%	922,475	6.0%	977,727	6.7%	1,042,758
October	1,127,250	-14.7%	961,371	-5.1%	911,968	9.2%	995,778	18.9%	1,184,347
November	898,448	-3.2%	869,490	-0.7%	863,516	8.5%	937,153	10.6%	1,036,562
December	875,997	-3.4%	846,391	-2.7%	823,351	5.2%	865,907	1.5%	879,128
Total	11,885,421	-8.5%	10,878,512	-5.4%	10,287,580	5.0%	10,804,328	10.4%	11,924,840
All Vehicles									
Total	153,304,723	2.0%	156,415,058	-0.7%	155,335,150	3.7%	161,110,082	-3.3%	155,794,902

Figure 2-12 shows the growth on each segment of the system, in terms of average daily traffic, from 1980 -2011. In 1980, only five miles of the system around O'Hare International Airport and the I-294/I-90 interchange had daily volumes of more than 100,000 vehicles. By 2011, the entire central Tri-State and large portions of the Reagan and Jane Addams were carrying over 150,000 vehicles per day, and virtually all urban segments were carrying at least 100,000 vehicles daily.









**AVERAGE ANNUAL DAILY TRAFFIC** 

# **Cyclical Trends**

This section explores cyclical variations by month and day-of-week on the Illinois Tollway.

#### **Monthly Variations**

The monthly variations in transactions are not uniform throughout the system. While there are localized variations between individual plazas, the most significant distinction is between urban versus rural toll plazas.

Figure 2-13 illustrates the monthly variation on the urban and rural sections of the Illinois Tollway, relative to the average annual monthly transactions. (1) System wide, the monthly variation spans 19.7 percentage points (11.9 percent below to 7.8 percent above the annual average). The monthly variation on the urban sections, which accounts for the majority of transactions, is nearly identical to the system wide numbers. However, in the rural sections, the monthly variation in 2012 is sharper, ranging from 17.6 percent below average to 15.3 percent above average.

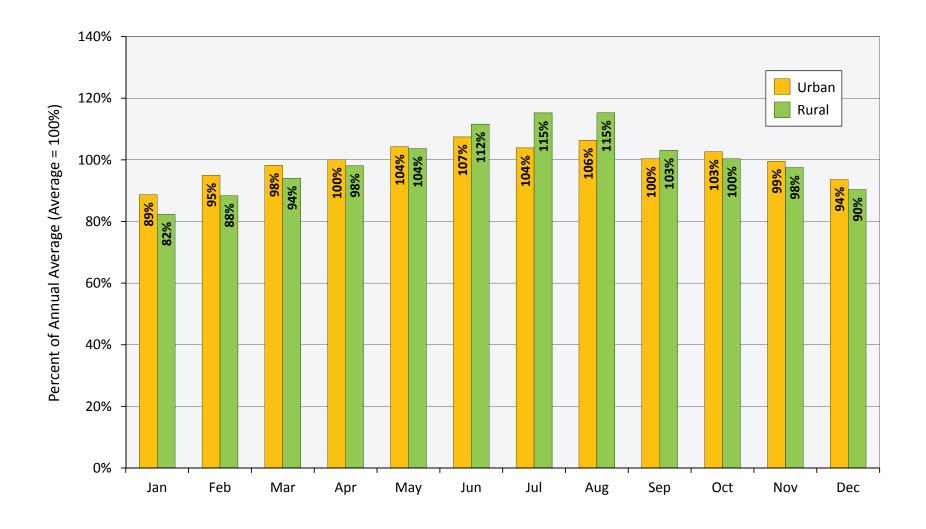
January and February are the least traveled months on the Tollway in both the urban and rural sections. In the urban sections, however, those months are only 8.2 percent below average; whereas transactions in rural sections are 14.7 percent below average. Conversely, in the summer months of July and August, transactions at urban plazas are just 3.9 to 6.5 percent above average, whereas at rural plazas are as much as 15.3 percent above average. The sharp increase in transactions at rural plazas in the summer is largely attributed to increased recreational travel.

## **Daily Variation**

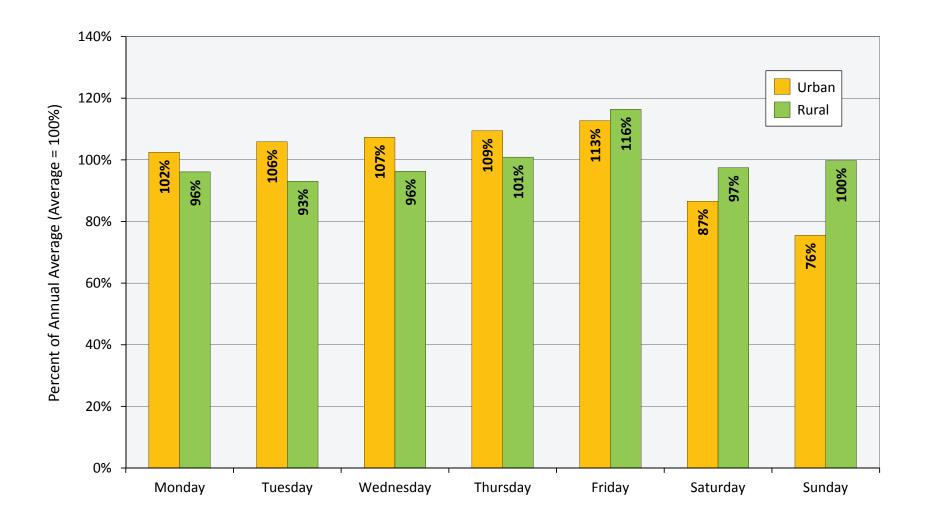
Daily variations showed a similar urban versus rural variance. Figure 2-14 illustrates the variation in transactions by day-of-week and by urban versus rural toll plazas. In the urban sections of the Tollway system, transactions increase steadily during the work week, from 2.5 percent above average on a typical Monday, to 12.7 percent above average on a typical Friday. Urban transactions drop off sharply on weekends to 13.4 percent below average on Saturdays and 24.5 percent below average on Sundays. Rural plazas, by contrast, show only a slight build between Monday and Thursday, while Fridays display a strong peak, typically reaching approximately 16.4 percent above average. The most significant contrast between rural and urban plazas occurs on weekends, as weekend transactions are just slightly below the weekly average in rural areas. During the summer months, weekend transactions at rural plazas actually exceed the annual average by more than 30 percent, while during winter months they may be lower than 25 percent below the annual average.

<sup>(1)</sup> Rural toll plazas are defined as: Plazas 1, 2, 4, 5 and 7 on I-90; Plazas 65, 66, 67 and 69 on I-88; and Plaza 21 on I-94. The remaining 63 toll plazas in the system are defined as urban.











## **Hourly Variation**

The profile of traffic by hour-of-day varies widely throughout the system. The rural areas lack a prominent weekday peak period and peak direction, although they do typically exhibit higher volumes in the afternoon. This pattern is illustrated by the rural Plaza 69 (Dixon) in Figure 2-15. In more centrally located toll plazas, such as Plaza 51, both weekday peak periods experience high traffic volumes in both directions without any clear directional trend.

Weekend hourly profiles vary substantially less on a plaza-by-plaza basis. On Saturdays and Sundays, suburban and rural share a profile similar to that of rural plazas on weekdays. On the weekends, there is very little early morning traffic, leading to a sharper rise to a broader peak that lasts from late morning until late afternoon. This profile for the same two plazas (51 and 69 on the Reagan Memorial Tollway) is shown below in Figure 2-15.

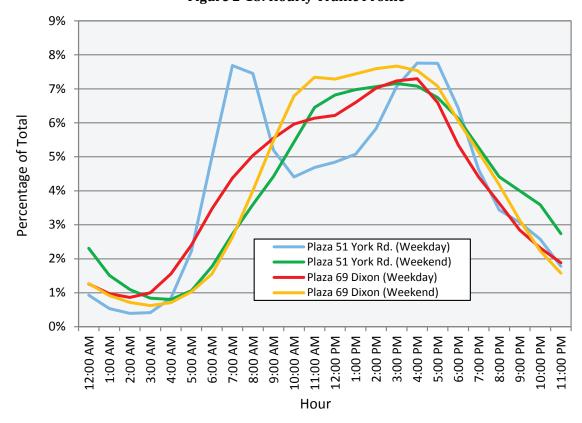


Figure 2-15: Hourly Traffic Profile



## **Travel Time Studies**

CDM Smith conducts periodic travel time studies on the Illinois Tollway and competing parallel routes. Data is collected through the use of vehicles equipped with GPS receivers connected to a laptop computer to record the position and speed of the vehicles as they travel each route. Each route is driven during the morning peak (7-9 AM), the afternoon peak (4-6 PM), and during the daytime off-peak period (10 AM-2 PM). These studies serve a variety of purposes, including:

- 1. **Model calibration:** The travel time study data is used to ensure that the travel times reported by the travel demand models reflect reality. The travel demand model is adjusted (or calibrated) until model-reported travel times closely match the values obtained from the travel time studies.
- 2. **Identifying Congestion:** Travel time study results are plotted on maps using a color-coded scheme to indicate the average speed every three seconds. This allows for easy identification and strategic mitigation development of bottlenecks and congested segments of the Tollway.
- 3. **Travel Time Trends:** The studies are conducted as frequently as every quarter to allow the Tollway to measure whether travel times change over time or by season, and the magnitude of these changes. Additionally, after system improvements such as pavement resurfacing, widening, and ORT conversion, the Tollway can measure the travel time benefits.
- **4. Before/After Studies:** The I-355 South Extension provided a unique opportunity to conduct before/after travel time studies on arterial routes that parallel the 12.5-mile extension one month before and five months after the route opened in November 2007. These studies allowed the Tollway to measure the extent to which this system addition reduced traffic and travel times on parallel arterial routes, and to measure the full travel time benefits experienced by patrons of the new route.

In addition to gathering travel times on the Illinois Tollway, they are also measured on competing toll-free parallel routes to determine the magnitude of the travel time savings experienced by Tollway patrons. The results of one such study are presented in the following section.

# **Travel Times Savings Study**

A recent travel time study comparing three Illinois Tollway segments with competing free routes was performed for the Tri-State Tollway. The results of the study are summarized in Table 2-17, and the routes that were studied are illustrated in Figure 2-16 to Figure 2-18.

Tollway travel times were calculated using I-PASS data from October 2012. Each I-PASS transponder has a unique identification that is recorded when it passes through the reader at a plaza. By taking transaction times of a single transponder at two different plazas, the travel time between those plazas can be calculated for a single vehicle. Aggregating hundreds of these speeds will give a reliable average travel time for the segment.



Non-Tollway travel times were calculated using two methods. The first two trip pairs were calculated using October 2012 Illinois Department of Transportation (IDOT) loop detector data. (2) These sensors are embedded in roadway pavement and record vehicle counts and speeds. Since individual vehicles are not identified, individual vehicle travel times cannot be calculated. Instead, the average speed at each sensor is applied to a segment extending halfway between it and the next sensor in either direction. An average travel time for each segment is calculated and the segment travel times are summed to get the total travel time for the route.

Because IDOT does not have loop data for US 41, a second method was used to estimate travel times on this route. The beginning and ending points of the trip were entered into Google Maps and the estimated travel times were recorded every 15 minutes during the peak period for several days. An average travel time was calculated from these individual estimates.

In general, the Tollway offers significantly lower travel times that the non-toll routes. In the first route comparison, the northbound Tollway route provided an average travel time savings of 34 minutes, representing a 47 percent reduction in travel time compared to the non-tolled route. The travel time savings in the southbound direction was similarly high, with an average savings of 28 minutes, or a 51 percent travel time reduction. Other routes in the study saved varying amounts of time, depending on time of day and direction traveled. The southbound direction of the central Tri-State segment from Dundee Road to Devon Avenue (during the PM peak period), was the only segment and time period not to offer a travel time savings over the non-toll route. This negative travel time savings was likely a temporary situation due to construction on the segment.

Table 2-17: Travel Time Savings, Illinois Tollway vs. Free Route

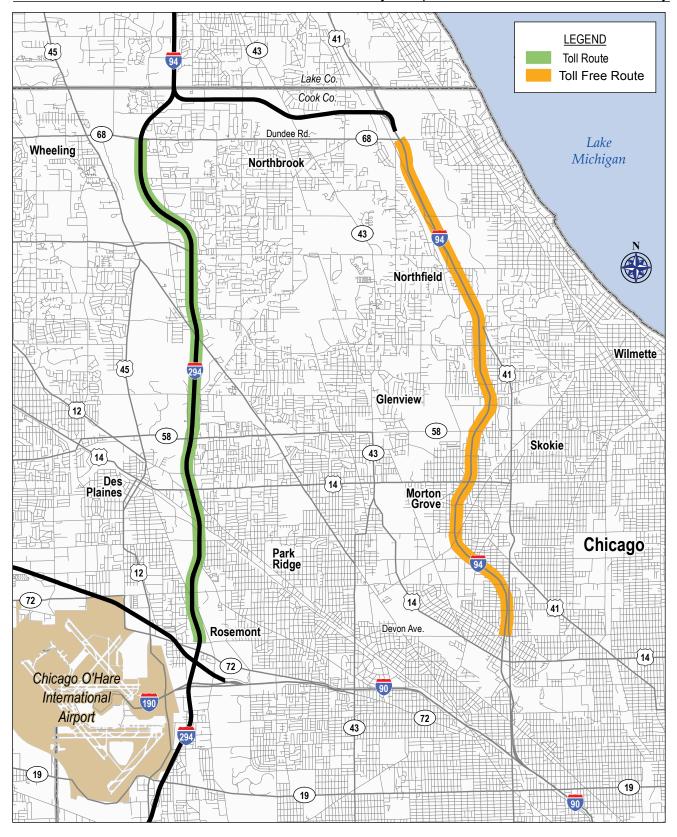
				Travel Time						
				(minutes)		Distance (miles)		Time	Toll	Cost per
Trip			Peak	Via	Via	Via	Via	Saving	Cost	Min
Pair	Origin	Destination	Period	Freeway	Tollway	Freeway	Tollway	(minutes)	(\$)	Saved (\$)
1	I-80	O'Hare	AM	79.4	45.1	32.6	32.4	34.3	3.	0.087
			PM	64.7	31.5			33.2	00	0.090
	O'Hare	I-80	AM	55.8	33			22.8	3.	0.132
			PM	77.6	44			33.6	00	0.089
2	Devon Ave	Dundee Rd	AM	13.2	7.9	9.7	9.6	5.3	0.	0.179
			PM	22.7	8.4			14.3	95	0.066
	Dundee Rd	Devon Ave	AM	13.5	10.6			2.9	0.	0.259
			PM	11.2	26.1			-14.9	75	
3	Lake Cook Rd	WI Border	AM	35.4	22.7	26.4 25.5	25.5	12.7	1.	0.11
			PM	39.2	24.7			14.5	40	0.097
	WI Border	Lake Cook AM	AM	38.2	22.8			15.4	1.	0.091
		Rd	PM	37.8	23.1		14.7	40	0.095	

 $<sup>^{(2)}</sup>$  Data was downloaded from NAVTEQ's traffic.com website, which summarizes the data received from IDOT.



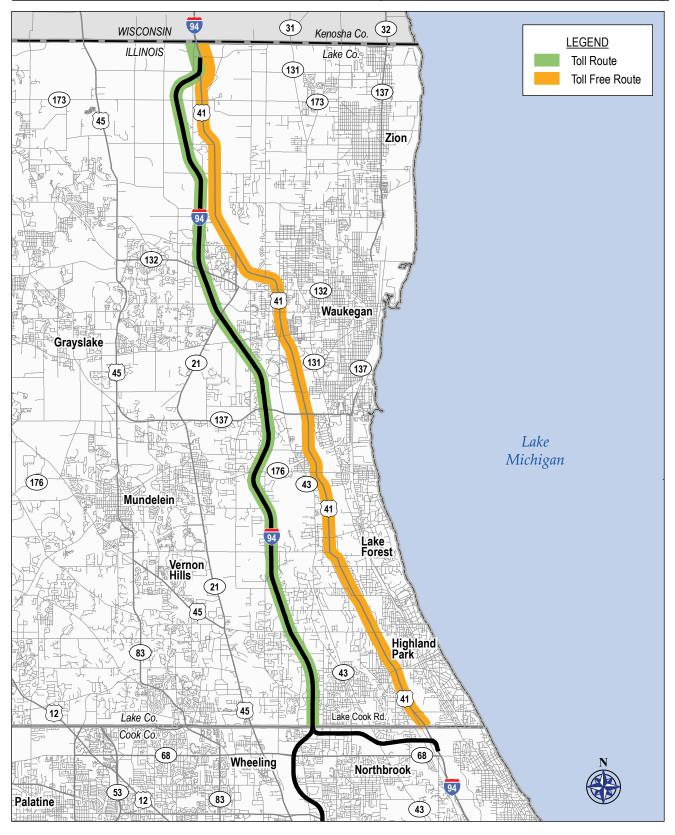








**COMPARATIVE TRAVEL TIMES: ROUTE PAIR 2** 





**COMPARATIVE TRAVEL TIMES: ROUTE PAIR 3** 

# Chapter 3

## **Economic Growth Review**

## Introduction

Regional socioeconomic characteristics are a principle driver of travel demand and have a significant impact on the ongoing usage of a toll facility. Population and employment are the two most important variables used in socioeconomic forecasts for transportation planning. From these socioeconomic variables, transportation planners forecast trip origins and destinations, trip distribution (linking origins and estimations), modal choice (auto, train, bus, walk), and trip assignment (specific route taken). The total of all auto trips assigned to Tollway routes provide the basis for revenue estimation. As such, it is therefore vital to review these underlying demographic assumptions.

CDM Smith used a modified version of the Chicago Metropolitan Agency for Planning (CMAP) regional travel demand model as the basis for the study modeling effort. Inherent to the CMAP model, are the population and employment forecasts developed and adopted by CMAP. However, because of the key role that these socioeconomic forecasts play in estimating future travel demand, it is common practice at the "investment-grade" level of study to independently verify and refine these assumptions. For this task, CDM Smith partnered with The al Chalabi Group (ACG), one of the region's foremost economics consulting firms. ACG's full Economic Growth Review report is provided as an Appendix B to this document.

The demographic forecast used throughout this study is a hybrid of the CMAP and AVG forecasts. In order to achieve the desired results, CDM Smith used the CMAP socioeconomic data as a foundation, and then applied ACG growth factors to the CMAP seed matrix, incorporating elements from both the CMAP and ACG forecasts. The process under which this revised forecast was integrated into the modeling process is described in detail in Chapter 4. This chapter provides a summary of the demographic and economic information assembled from various sources, including a summary of ACG's findings.

## **Geographic Context of Illinois Tollway Study Area**

ACG was tasked with providing an independent assessment of the socioeconomic forecasts for the Illinois Tollway Service Area. The ACG report discusses various overlapping geographic areas, some of which have changed over time, and some which are not used outside of Illinois Tollway planning context. This section defines the boundaries of these geographic areas, shown in Figure 3-1. These geographic areas include:

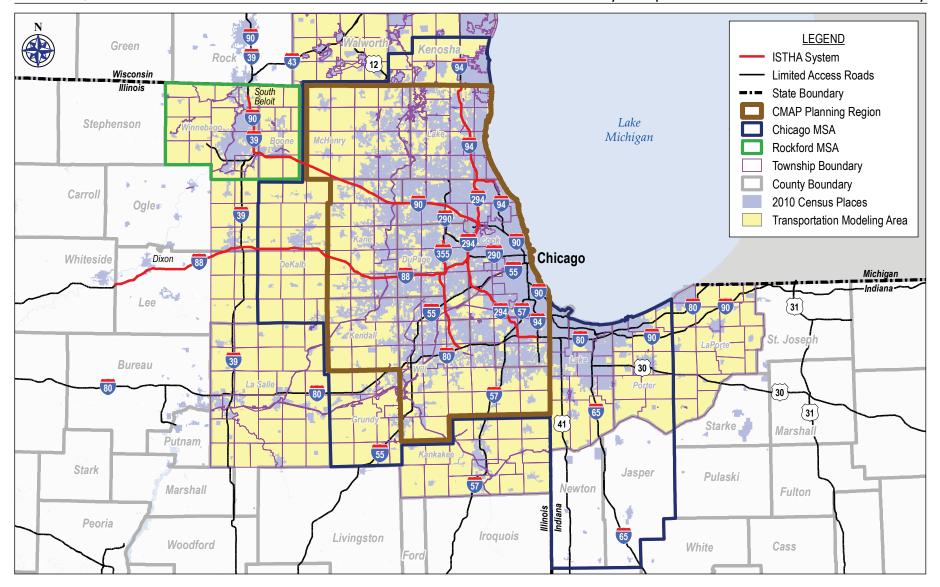
 CMAP Planning Region: CMAP is the official regional planning organization Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will counties in northeastern Illinois, commonly referred to as the seven-county region.



- 2. Chicago Metropolitan Statistical Area (MSA): The Chicago MSA is defined by the U.S. Census Bureau and consists of 14 counties; 11 within the State Illinois, two in Indiana and one in Wisconsin. The Chicago MSA is depicted as thick blue boundary line in the Figure 3-1.
- 3. Rockford MSA: Also a census-defined geography, this two-county metropolitan area containing the City of Rockford, Illinois, includes Winnebago and Boone counties, which are designated with a thick green boundary.
- 4. Transportation Modeling Area: This CMAP-defined region consists of the 19 counties within the CMAP travel demand model network. This is the same area used by CDM Smith to model the future demand on the Illinois Tollway System. Two rural counties--Lee and Ogle counties--served by the Illinois Tollway are not included in the travel demand model.
- 5. Illinois Tollway Service Area: The Illinois Tollway Service Area, as defined by ACG, consists of 15 Illinois counties. The Tollway passes directly through 11 of these counties, while the other four are adjacent to and contribute significant traffic to the Tollway. The 15-county service area is composed of nine counties within the Chicago MSA, two counties in the Rockford MSA, and Lee and Ogle counties.

Table 3-1 lists all of the counties included in at least one of the study/statistical areas, and contains brackets indicating which counties are included in each area.







# ILLINOIS TOLLWAY SERVICE AREA AND OTHER PLANNING AREAS

Geogra,

Geogra,

Transportation Modeling Area Chicago MSA Boone Cook DeKalb DuPage Grundy Jasper\* Kane Kankakee Kendall Kenosha\*\* Lake Lake\* LaPorte\* LaSalle Lee McHenry Newton\* Ogle Porter\* Racine\*\* Walworth\*\* Will Winnebago 

Table 3-1: Illinois Tollway Service Area vs. Other Geographic Study Regions



<sup>\*</sup> Indiana

<sup>\*\*</sup> Wisconsin

#### **Counties versus Illinois Tollway System Routes**

The 11 Illinois counties through which the Illinois Tollway System runs have different levels of influence on the Tollway system. Table 3-2 lists those 11 Illinois and indicates the corresponding routes primarily affected by each county. As indicated, Cook and DuPage counties are the "core" counties of the Illinois Tollway System. All four routes travel though (or very near) these two counties and the majority of the toll revenue is generated within these two counties. While only served directly by the Tri-State Tollway, Lake County generates significant toll revenues. The "collar" counties of DeKalb and Will each influence two routes, and are of increasing importance to Illinois Tollway traffic and revenue, as the growth rates in population and employment in both counties exceed the regional average.



Table 3-2: Influence on the Illinois Tollway System Routes by County

# **Regional Development Trends**

Regional Development Trends provide an overview of the population and employment trends in the 11 Illinois counties directly served by the Illinois Tollway. The counties are grouped into four sets of counties: Core Counties, Collar Counties, Rockford MSA, and Rural Counties. Figure 3-2 presents these counties on a map of the Chicago region.



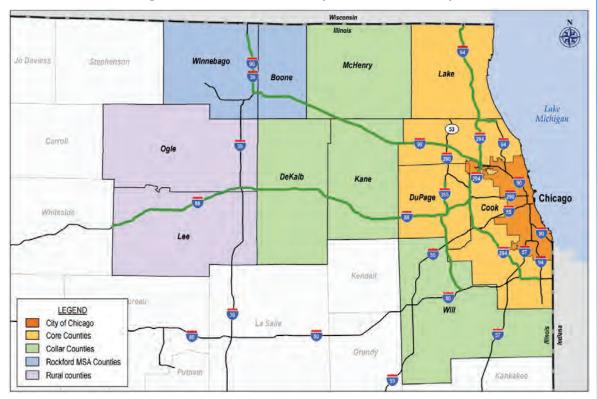


Figure 3-2: Counties served by the Illinois Tollway

#### **Core Tollway Counties**

Cook, DuPage, and Lake Counties make up the core Illinois Tollway counties, from which the majority of toll revenue and transactions are generated. Cook and DuPage Counties are both mature counties with leveled-off population growth. Lake County is somewhat later in its development relative to Cook and DuPage Counties. However, its growth began flattening between the 2000 and 2010 censuses. The section below summarizes the population growth trend within each County. Because of its size and the significance of the major metropolitan area that lies within its boundaries, Cook County has been divided into the City of Chicago and suburban Cook County regions.

- **City of Chicago:** Chicago's population peaked in 1950 at 3.6 million. By 2010, the population had fallen by nearly one million (one-quarter of the 1950 total) to 2.7 million. The decline between 1950 and 2010 was gradual, although the city experienced an uptick in population, rising from 2.8 million in 1990 to 2.9 million in 2000. The decline is attributable to the sharp increase in suburbanization following World War II.
- **Suburban Cook County:** Both North and West Suburban Cook County are mature and nearing capacity. Northern Cook, which is well-served by commuter rail and an early beneficiary of suburban residential growth, saw its commercial development take off with the development of O'Hare International Airport in the 1960s. Its jobs-to-population ratio of 0.776 remains the highest in the metropolitan area. South Suburban Cook County



developed from the 1920s to 1960s, in parallel with the growth of the manufacturing sector in Chicago and Northwest Indiana. However, in contrast to the north, South Suburban Cook lost a significant number of jobs with the decline of the manufacturing industry. South Suburban Cook's current jobs-to-population ratio is 0.422.

- **DuPage County:** DuPage County's population growth accelerated in the 1950s with overall suburban Chicago growth. This growth, however, leveled-off in 2000 as the developable land shrank from approximately 70.0 percent to just 5.7 percent of the County's area. Between 1980 and 2010, the population grew by 39.2 percent, from 659,000 to 917,000, but slowed to just 1.4 percent (13,000 persons) between 2000 and 2010.
- Lake County: Until 1950, the major growth and development of Lake County was within the shoreline towns. Between 1950 and 1970, the development moved inward as commuter rail and expressways (I-94 and I-294) provided access to downtown Chicago and the growing O'Hare International Airport. Between 1970 and 2000, much of the growth was focused in the swath of land between the Edens Expressway and Tri-State Tollway. Lake County has a high jobs-to-population ratio (0.609) and ample developable land for continued growth (18.0 percent).

The combined population of the "core" counties increased just 7.3 percent in the period between 1980 and 2010, from 6.35 million to 6.81 million. Due to their already large population bases, these three core counties still accounted for approximately 31.0 percent of the absolute growth in population among the 15 Illinois counties in the Tollway Service Area. Employment growth has occurred at a faster and sustained pace, increasing 24.3 percent, from 3.41 to 4.24 million between 1980 to 2010. This represents two-thirds of all job growth in the 15-county region during this period.

#### **Collar Counties**

The "collar" counties lie just outside the ring of "core" counties surrounding Chicago – Will, Kane, McHenry and DeKalb counties. Growth in the four "collar" counties was slower in the 1950-1990 period of suburbanization (the period when Cook, DuPage, and Lake Counties were growing most rapidly). After 1990 however, growth in these four collar counties accelerated as available land for development diminished in the "core" counties.

• Will County: Will County is home to some of the older cities and towns in the Chicago area, including Joliet, Lockport, and Crete. It has only recently experienced the rapid suburbanization and growth that characterized the inner Chicago-area counties of Lake and DuPage. Between 1960 and the 1990s, much of the suburban growth was centered farthernorth around O'Hare Airport. Since the 1990s, as the areas around O'Hare have become saturated with development, Will County has become one of the fastest growing counties in the United States. Between 1920 and 1990, the county population grew from 92,911 to 357,313. However, between 1990 and 2010, its population nearly doubled, increasing by 89.7 percent to 677,936.



- **Kane County:** Elgin, Geneva, and Aurora are all major satellite cities in the Chicago region. Due to its distance from central Chicago, Kane County grew more slowly than other suburban counties during the major period of suburbanization from 1950 to 1990. However, between 1990 and 2010, population growth accelerated, increasing 62.4 percent, from 317,471 to 515,650.
- **McHenry County:** McHenry County's population more than doubled between 1980 and 2010, growing by 108.9 percent to 309,000. Much of this growth was in and around the county's older towns of Crystal Lake, Algonquin, and McHenry that line the Fox River. These towns are also all in close proximity to the Jane Addams Memorial Tollway (I-90). Employment grew at an even higher rate, but the County still reports a relatively low jobsto-population ratio of 0.435 in 2010. This indicates that much of the population commutes outside of McHenry for employment. As of 2010, 58.6 percent of the County's land was vacant and/or developable.
- **DeKalb County:** I-88 bisects DeKalb County. It is served by I-90, which comes within a mile of the northeast corner of the county, though the interchanges closest to the county line, US-20/Marengo and Genoa Road, pass within six to 10 miles. The main city in DeKalb County, DeKalb, is home to Northern Illinois University. While much of the county remains rural in character, the population growth is more like that of a suburban county in the "takeoff" period of growth. The population has tripled over the past 30 years, from about 35,200 in 1980 to 105,170 in 2010. Employment has only increased about 50.0 percent over this same time period, growing from 35,214 to 52,772 jobs. This that the county serves largely as a bedroom community and that the jobs are located in DuPage and other surrounding counties.

Collectively, the three collar counties doubled in population between 1980 and 2010; from 0.79 million to 1.61 million persons. This accounted for 56.0 percent of all population growth in the 15-county region. Employment grew an even faster rate of 120.7 percent during the same period (from 292,040 to 644,484 thousand jobs). However, the employment-to-population ratio (0.429) lags the 15-county regional average. The high employment ratios in DuPage, Lake, and North Suburban Cook Counties, paired with the low ratios in the collar counties, indicate that many collar county residents commute to these core employment counties.

### **Rockford MSA Counties**

The Rockford Metropolitan Statistical Area (MSA) is composed of Winnebago and Boone Counties. The City of Rockford, located within Winnebago County, was the second largest city in Illinois throughout the 20th Century, but was overtaken by Aurora in the 2000 census.

Winnebago County's population has grown steadily since 1920, with its greatest increases occurring between 1940 and 1970. Between 1970 and 1990, its population stagnated, reflecting a downturn in the nation's manufacturing base. The County's population grew by 16.9 percent between 1990 and 2010. Likewise, the area's economy improved between 1990 and 2008, experiencing employment growth from 150,500 to 173,000. However, during the 2007-2009 recession, Rockford's employment declined by 10.2 percent in one year. Although manufacturing



jobs have continued to decline at the national level, transportation and warehousing have increased by 158.0 percent (between 1970 and 2010) in the Rockford MSA. The Greater Rockford Airport now serves as a major supplemental cargo airport to O'Hare and benefits from nearby multi-modal sites.

#### **Rural Counties**

Lee and Ogle Counties lie at the western end of the Reagan Memorial Tollway (I-88). Both counties are largely rural in character, and are expected to remain rural throughout the forecast period of 2040.

- **Lee County:** The population of Lee decreased 5.0 percent between 1970 and 2010 to 36,032. The largest City in Lee County is Dixon which, as of the 2010 Census, had a population of 15,733.
- **Ogle County:** The population of Ogle County has grown steadily. Between 1970 and 2010, the population increased from 43,804 to 53,485, a 22.1 percent increase. The largest city in Ogle County is Rochelle, which had a population of 9,574 as of the 2010 census.

Table 3-3 and Table 3-4 present the population and employment trends, respectively, for the 15-County Illinois Tollway System service area as previously identified as well as state and national statistics.



**Table 3-3: Historical Population Growth by Illinois Counties 1980-2010** 

	County Name	Population 1980	Population 1990	Population 2000	Population 2010	AAPC <sup>(1)</sup> 1980 to 1990	AAPC <sup>(1)</sup> 1990 to 2000	AAPC <sup>(1)</sup> 2000 to 2010
	Cook County	5,253,655	5,105,067	5,376,741	5,193,919	-0.3%	0.0%	-0.3%
	City of Chicago	3,005,061	2,783,726	2,896,014	2,694,554	-0.8%	-0.4%	-0.7%
	Suburban Cook - North	898,870	974,111	1,047,250	1,062,687	0.8%	0.6%	0.1%
gion	Suburban Cook - South	738,199	744,325	789,353	793,996	0.1%	0.2%	0.1%
CMAP Region	Suburban Cook - West	611,525	602,905	644,124	642,682	-0.1%	0.2%	0.0%
\ <u>A</u>	DuPage County	658,824	781,666	904,159	917,084	1.7%	1.1%	0.1%
	Kane County	278,405	317,471	404,119	515,650	1.3%	2.1%	2.5%
	Kendall County	37,202	39,413	54,544	114,760	0.6%	3.8%	7.7%
	Lake County	440,372	516,418	644,356	703,882	1.6%	1.6%	0.9%
	McHenry County	147,897	183,241	260,077	309,000	2.2%	2.5%	1.7%
	Will County	324,460	357,313	502,266	677,936	1.0%	2.5%	3.0%
	Boone County	28,630	30,806	41,786	54,215	0.7%	2.2%	2.6%
	DeKalb County	35,210	40,130	47,160	105,169	1.3%	3.7%	8.4%
ties	Grundy County	30,582	32,337	37,535	50,028	0.6%	1.7%	2.9%
Counties	Kankakee County	102,926	96,255	103,833	113,494	-0.7%	0.3%	0.9%
Other C	LaSalle County	112,033	106,913	111,509	113,890	-0.5%	0.1%	0.2%
ㅎ	Lee County	36,432	34,476	36,092	36,032	-0.6%	0.0%	0.0%
	Ogle County	46,453	46,059	51,275	53,485	-0.1%	0.5%	0.4%
	Winnebago County	250,884	252,913	278,418	295,567	0.1%	0.5%	0.6%
	Total (15 Counties)	7,783,965	7,940,478	8,853,870	9,254,111	0.2%	0.6%	0.4%
	CMAP Region (7 Counties)	7,140,815	7,300,589	8,146,262	8,432,231	0.2%	0.6%	0.3%
	Chicago MSA (14 Counties)	8,013,595	8,144,824	9,057,238	9,461,746	0.2%	0.6%	0.4%
	Illinois	11,426,518	11,430,602	12,419,293	12,830,632	0.0%	0.4%	0.3%
	U.S.	226,545,805	248,709,873	281,421,906	308,745,538	0.9%	1.0%	0.9%

<sup>(1)</sup> Average Annual Percent Change



Table 3-4: Historical Employment Growth by Illinois Counties 1980-2010

		Employment	Employment	Employment	Employment	AAPC (1)	AAPC (1)	AAPC (1)
	County Name	1980	1990	2000	2010	1980 to 1990	1990 to 2000	2000 to 2010
	Cook County	2,913,470	3,134,630	3,321,603	3,122,745	0.7%	0.2%	-0.6%
	City of Chicago	1,712,300	1,673,869	1,748,373	1,604,875	-0.2%	0.1%	-0.9%
	Suburban Cook - North	558,923	741,834	834,534	824,815	2.9%	0.4%	-0.1%
gion	Suburban Cook - South	244,408	321,979	344,617	334,761	2.8%	0.2%	-0.3%
CMAP Region	Suburban Cook - West	397,839	396,948	394,079	358,294	0.0%	0.0%	-0.9%
CMA	DuPage County	289,130	504,740	696,726	689,725	5.7%	1.1%	-0.1%
	Kane County	133,230	174,180	239,975	257,348	2.7%	1.1%	0.7%
	Kendall County	17,210	15,220	21,480	29,806	-1.2%	1.2%	3.3%
	Lake County	210,930	296,740	415,337	428,851	3.5%	1.1%	0.3%
	McHenry County	56,680	83,190	110,734	134,820	3.9%	1.0%	2.0%
	Will County	102,130	124,030	184,449	252,316	2.0%	1.3%	3.2%
	Boone County	14,433	16,778	18,864	19,849	1.5%	0.4%	0.5%
	DeKalb County	35,214	40,128	47,154	52,772	1.3%	0.5%	1.1%
ties	Grundy County	13,280	16,180	19,850	21,873	2.0%	0.7%	1.0%
Other Counties	Kankakee County	43,030	45,560	54,100	55,231	0.6%	0.6%	0.2%
er C	LaSalle County	51,320	49,980	58,304	55,170	-0.3%	0.5%	-0.6%
₹	Lee County	16,259	17,667	17,959	15,456	0.8%	0.1%	-1.5%
	Ogle County	18,717	20,580	25,385	23,090	1.0%	0.7%	-0.9%
	Winnebago County	130,406	150,569	175,310	155,293	1.4%	0.5%	-1.2%
	Total (15 Counties)	4,045,439	4,690,172	5,407,230	5,314,345	1.5%	0.5%	-0.2%
	CMAP Region (7 Counties)	3,722,780	4,332,730	4,990,304	4,915,611	1.5%	0.5%	-0.2%
L	Chicago MSA (14 Counties)	4,128,845	4,745,467	5,460,257	5,381,532	1.4%	0.5%	-0.1%
	Illinois	5,675,371	6,390,424	7,354,515	7,261,670	1.2%	0.5%	-0.1%
L	U.S.	113,983,200	138,330,900	165,370,800	173,626,700	2.0%	0.6%	0.5%

<sup>(1)</sup> Average Annual Percent Change



### **Employment to Population Ratios**

The employment-to-population ratio of a geographic area indicates the extent to which the population of one county must travel to another county for employment, or whether the county is a net receiver of employees. For example, North Suburban Cook and DuPage Counties have very high ratios of 0.776 and 0.752, respectively. Conversely, the collar counties of Kane and McHenry report below average ratios of 0.499 and 0.436. Table 3-5 presents the attendant employment-to-population ratios for the 15-County Illinois Tollway System service area, as well as state and national statistics, in the year 2010.

Table 3-5: 2010 Employment-to-Population Ratios by County

	County Name	Employment 2010	Population 2010	Employment to Population Ratio
	Cook County	3,122,745	5,193,919	0.601
	City of Chicago	1,604,875	2,694,554	0.596
	Suburban Cook - North	824,815	1,062,687	0.776
	Suburban Cook - South	334,761	793,996	0.422
	Suburban Cook - West	358,294	642,682	0.557
	DuPage County	689,725	917,084	0.752
gion	Kane County	257,348	515,650	0.499
P Re	Kendall County	29,806	114,760	0.26
CMAP Region	Lake County	428,851	703,882	0.609
	McHenry County	134,820	309,000	0.436
	Will County	252,316	677,936	0.372
	Boone County	19,849	54,215	0.366
	DeKalb County	52,772	105,169	0.502
ies	Grundy County	21,873	50,028	0.437
ount	Kankakee County	55,231	113,494	0.487
Other Counties	LaSalle County	55,170	113,890	0.484
oth	Lee County	15,456	36,032	0.429
	Ogle County	23,090	53,485	0.432
	Winnebago County	155,293	295,567	0.525
	Total (15 Counties)	5,314,345	9,254,111	0.574
	CMAP Region (7 Counties)	4,915,611	8,432,231	0.583
	Chicago MSA (14 Counties)	5,381,532	9,461,746	0.569
	Illinois	7,261,670	12,830,632	0.566
	U.S.	173,626,700	308,745,538	0.562



### **Historical Household Income Trend**

Demand for travel on a toll facility is dependent on a number of factors, specifically the time savings that a traveler can expect when using the tolled route. Their willingness to pay is determined, in large, by income. Based on income, CDM Smith calculates value-of-time (VOT) for motorists for various geographies within the study area. Although calculation of VOT is discussed in greater detail in Chapter 4, it is beneficial to gain an understanding of income levels based on geography due to the significant role that VOT plays in the forecasting process.

The historical household income trend for the region is shown, by county, in Table 3-6. As illustrated, growth in mean household income between 1980 and 2010 has remained steady, growing at an average of 1.5 percent per year. The largest period of growth in recent years was between 1990 and 2000, when average income across the Chicago MSA rose by 2.4 percent per year. Amongst the counties with the fastest growing income levels were DuPage, Lake, Will, and Kendall counties, averaging 3.0, 2.6, 2.4, and 2.3 percent per year between 1990 and 2000, respectively. Between 2000 and 2010, many counties realized a decline in average household income, with Kendall County experiencing the greatest reduction of -1.2 percent per year. In total, average income across DuPage, Kane, Kendall, Lake, and McHenry counties declined by an average of -0.9 percent per year. Cook and Will counties increased between 0.8 and 0.9 percent. Figure 3-3 presents the mean household income by Census tract on a map of Chicago region.

**Table 3-6: Historical Mean Household Income by County (in 2005 Dollars)** 

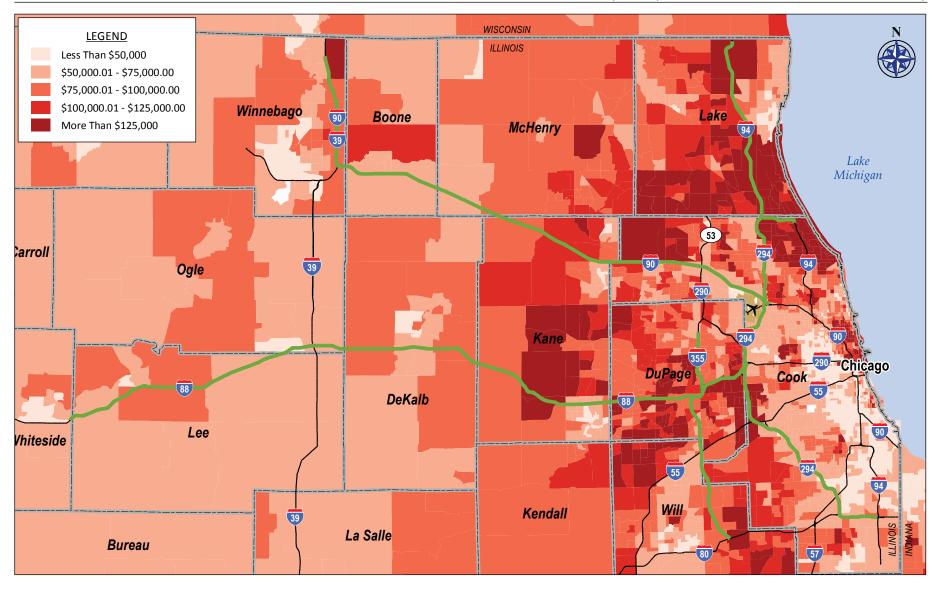
County Name	1980	1990	2000	2010	1980 to 2010 Compounding Annual Growth Rate
Cook County	\$69,470	\$82,355	\$102,557	\$112,514	1.6%
DuPage County	\$87,463	\$107,477	\$143,962	\$131,433	1.4%
Kane County	\$70,956	\$86,340	\$103,393	\$98,402	1.1%
Kendall County	\$76,095	\$81,242	\$102,162	\$90,596	0.6%
Lake County	\$86,334	\$116,650	\$150,513	\$137,584	1.6%
McHenry County	\$73,732	\$88,864	\$109,372	\$99,438	1.0%
Will County	\$69,376	\$79,243	\$100,239	\$108,119	1.5%
Chicago MSA	\$71,236	\$85,207	\$107,652	\$110,972	1.5%
Illinois	\$65,155	\$76,884	\$96,217	\$101,304	1.5%
U.S.	\$59,587	\$70,976	\$88,047	\$95,072	1.6%

Source: W&P 2012

## **Major Economic Developments**

A review of the region's major employers was conducted to identify the significance of their economic contribution, both primary and dependent employment, to the Chicago area. Table 3-7 lists some of the largest Fortune 500 employers located within the Chicago area. As illustrated in Figure 3-4, the majority of these employers are located in close proximity to the Illinois Tollway System.







## **MEAN HOUSEHOLD INCOMES**

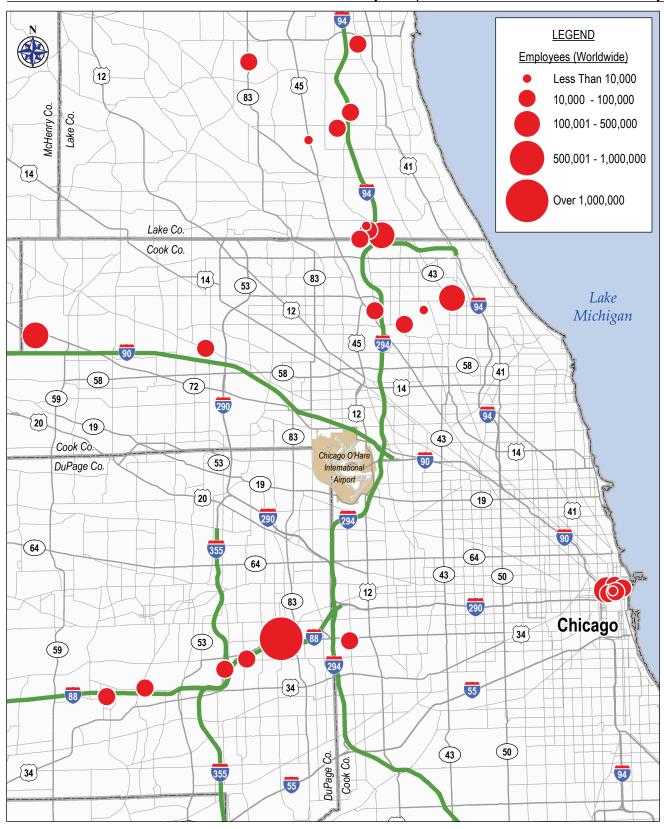
Table 3-7: Fortune 500 Corporations in Chicago Metropolitan Area (2012)

Employer Name	Location	Fortune 500 Ranking	Address	Employees (worldwide)	Gross Earnings (\$ millions)*
Central Chicago				, , , , , , , ,	(, ,
Boeing	Chicago	39	100 North Riverside Plaza, Chicago, IL, 60606	170,000	\$68,735
United Continental Holdings	Chicago	76	77 West Wacker Drive, Chicago Loop, Chicago, IL, 60601	85,000	\$37,110
Exelon	Chicago	145	10 S. Dearborn Street, 48th Floor, Chase Tower, Chicago, IL, 60680	27,000	\$18,924
Aon	Chicago	235	200 E. Randolph Street, Chicago, IL, 60601	62,000	\$11,287
RR Donnelly	Chicago	249	111 South Wacker Drive, Chicago, IL, 60606	58,000	\$10,611
Telephone & Data Systems	Chicago	469	30 North LaSalle Street, Chicago, IL, 60602	1,300	\$5,181
North and Northwest Chicago (MSA)	, and the second		, 0, ,		. ,
Walgreen	Deerfield	32	200 Wilmot Road, Deerfield, IL, 60015	240,000	\$72,184
Kraft Foods	Northfield	50	33 Lakes Drive, Northfield, IL, 60093	126,000	\$54,365
Sears Holdings	Hoffman Estates	65	3333 Beverly Road, Hoffman Estates, IL, 60179	293,000	\$41,567
Abbot/Labs	Abbott Park	71	100 Abbott Park Road, Abbott Park, IL, 60064	91,000	\$38,851
Allstate	Northbrook	93	3075 Sanders Road, Northbrook, IL, 60062	70,000	\$32,654
Illinois Tool Works	Glenview	149	3600 West Lake Avenue, Glenview, IL, 60026	60,000	\$18,266
Baxter International	Deerfield	195	1 Baxter Parkway, Deerfield, IL, 60015	48,500	\$13,893
Motorola	Libertyville	206	600 U.S. 45, Libertyville, IL, 60048	20,500	\$13,064
CDW	Vernon Hills	270	200 North Milwaukee Avenue, Vernon Hills, IL, 60061	6,900	\$9,602
Motorola Solutions	Schaumburg	274	1295 E. Algonquin Road, Schaumburg, IL, 60196	21,000	\$9,549
Discover Financial Services	Riverwoods	300	2500 Lake Cook Road, Riverwoods, IL, 60015	11,650	\$8,550
WW Grainger	Lake Forest	318	14441 Illinois 60, Lake Forest, IL, 60045	21,000	\$8,078
Tenneco, Inc.	Lake Forest	350	500 North Field Drive, Lake Forest, IL, 60045	24,000	\$7,205
Anixter International	Glenview	386	2301 Patriot Boulevard, Glenview, IL, 60026	8,200	\$6,270
United Stationers	Deerfield	478	1 Parkway North, Deerfield, IL, 60015	6,000	\$5,006
West Chicago MSA					
McDonald's	Oak Brook	107	2111 Midwest Road, Oak Brook, IL, 60523	1,700,000	\$27,006
Navistar International	Lisle	193	2701 Navistar Drive, Lisle, IL, 60532	20,800	\$13,958
Sara Lee	Downers Grove	220	3500 Lacey Road, Downers Grove, IL, 60515	40,000	\$12,103
Dover	Downers Grove	304	3005 Highland Parkway #200, Downers Grove, IL, 60515	35,000	\$8,502
Office Max	Naperville	354	263 Shuman Boulevard, Naperville, IL, 60563	29,000	\$7,121
Corn Products	Westchester	390	5 Westbrook Corporate Center, Tower 5, Westchester, IL, 60154	10,000	\$6,219
Northwest Indiana					
NiSource, Inc.	Merrillville	409	801 East 86th Avenue, Merrillville, IN, 46410	7,900	\$6,019
Illinois (Remainder)					
Archer Daniels Midland	Decatur	28	4666 Faries Parkway, Decatur, IL, 62525	30,000	\$80,676
State Farm	Bloomington	43	1 State Farm Plaza, Bloomington, IL, 61710	68,000	\$64.305.1
Caterpillar	Peoria	46	100 North East Adams Street, Peoria, IL, 61629	129,113	\$60,138
John Deere	Moline	97	1 John Deere Place, Moline, IL, 61265	62,000	\$32,013

<sup>\*2011</sup> stated gross revenue

Source: Fortune Magazine, Fortune 500 Corporations: 2012 Rankings







FORTUNE 500 COMPANIES HEADQUARTERED IN THE CHICAGO METRO AREA

## **Recent Economic Trends**

CDM Smith teamed with ACG as an independent consultant to review recent economic indicators for the Chicago Metropolitan area to better understand how trends in the Chicago metropolitan area have been affected recently. ACG used this data to evaluate and provide an independent analysis of regional socio economic data sets produced by other forecasting bodies. A summary of this analysis has been presented in the following section of this report. ACG's detailed analysis and results are attached as Appendix B to this report.

This section presents recent trends in economic indicators, such as employment, unemployment, and residential building permit activity. The measures reviewed in this section are presented on a monthly basis for one or more recent years. These short-term economic variables provide additional insight into the current trends that will immediately affect traffic and toll revenues, given the volatility of the current economic climate.

The U.S. economy is recovering from one of the most significant economic contractions since the Great Depression. In January 2010, national unemployment rate peaked at 10.6 percent. Although the rate remains high by historical standards, the national unemployment rate has recovered by approximately 3 percent since early 2010.

### **Recent National and Regional Economic Trends**

Per the U.S. Bureau of Economic Analysis (BEA), economic activity, as measured in real gross domestic product, grew at 2.3, 2.2, 2.6, and 2.4 percent in the four respective quarters of 2010. In 2011, real GDP growth slowed to 0.1 percent in the first quarter, but rose again by 2.5, 1.3, and 4.1 percent in the next three quarters, respectively. The first three quarters of 2012 showed a steady real GDP growth of 2.0, 1.3, and 3.1 percent, respectively, followed by a decline of 0.1 percent in the last quarter. According to the Bureau of Economic Analysis, the increase in real GDP in the second quarter of 2012 primarily reflected positive contributions from increased personal consumption expenditures (PCE), exports, non-residential and residential fixed investments. These were offset by reduced state and local government spending and increased imports.

Unemployment levels provide additional insight into the health of the regional job market. In addition to the direct benefit of this data, unemployment is one of a few key statistics that is updated monthly. As such, it provides unique insight into economic conditions at a very granular level. This is critically important when assessing short-term travel demand reflecting both the need for travel and the ability to pay for that travel. Figure 3-5 shows the nationwide, statewide, and Chicago MSA monthly unemployment rates since 2007. The data presented in Figure 3-5 is derived from the Bureau of Labor Statistics (BLS) estimates, and is current as of February 2013. The unemployment rates presented are not seasonally adjusted. From the general trend, one can observe that throughout the recession, the Illinois and Chicago MSA unemployment rates have generally tracked the national trend, while being slightly higher than the nation as a whole. The Chicago MSA unemployment rate closely mirrored state unemployment rates throughout the period; the Chicago MSA accounts for approximately 75 percent of total statewide employment. In January 2010, the Chicago MSA unemployment rate peaked at around 11.9 percent, while the



Illinois state unemployment rate peaked at 12.3 percent and the national unemployment rate peaked at 10.6 percent during the same month.

Since the January 2010 peaks, rates have steadily improved. As of the time of writing, Chicago MSA average unemployment rates for the last three available months have fallen to an average of 8.4 percent, representing a drop of 3.5 percent in unemployment rate compared to the January 2010 peak rate. The current rates are the lowest documented rates since December 2008.

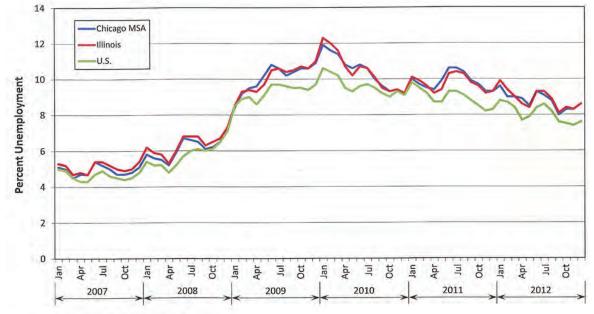


Figure 3-5: Comparison of Unemployment Rates

Source: Bureau of Labor Statistics, February 2013

Table 3-8 presents the historical non-farm employment levels in the Chicago MSA from 2007 through December 2012. Since 2007—the peak of annual employment prior to the recession—the annual average employment level for this region has decreased by about 245,000 jobs. The Chicago MSA lost about 121,200 and 216,700 jobs in the years 2008 and 2009. It is noted that the transactions on the Illinois Tollway system also decreased during these two years by 1.3 and 0.3 percent respectively. The Chicago MSA added approximately 36,000 and 25,800 jobs in the years 2010 and 2011. During 2010 and 2011, transactions on the Illinois Tollway system increased 5.4 and 1.9 percent.

Table 3-8: Trends in Chicago MSA Employment Levels (Thousands, Not Seasonally Adjusted)

	- <del></del>	Percent		Percent		Percent	- <del></del>	Percent		Percent	
Month	2007	Change	2008	Change	2009	Change	2010	Change	2011	Change	2012
January	4,451.8	0.5%	4,472.5	-3.5%	4,317.3	-4.1%	4,141.9	1.0%	4,182.7	1.0%	4,224.1
February	4,450.3	0.4%	4,469.4	-3.9%	4,293.6	-3.4%	4,148.8	1.0%	4,188.9	1.0%	4,229.7
March	4,490.0	0.0%	4,489.7	-4.6%	4,285.4	-2.7%	4,170.3	1.2%	4,220.4	1.0%	4,262.1
April	4,531.2	0.1%	4,536.3	-5.3%	4,295.6	-1.7%	4,223.3	1.3%	4,278.3	0.8%	4,311.0
May	4,580.0	-0.1%	4,576.2	-5.6%	4,321.1	-1.0%	4,278.5	0.8%	4,313.0	0.7%	4,342.3
June	4,614.5	-0.4%	4,594.2	-5.8%	4,328.5	-0.8%	4,294.4	1.1%	4,341.6	0.8%	4,376.0
July	4,588.7	-0.4%	4,568.3	-6.1%	4,288.4	-0.8%	4,253.7	1.6%	4,319.7	0.7%	4,350.7
August	4,590.8	-0.6%	4,565.2	-6.3%	4,276.8	-0.3%	4,263.9	1.2%	4,315.2	0.9%	4,356.0
September	4,583.8	-0.9%	4,541.0	-6.0%	4,270.5	0.0%	4,268.5	1.2%	4,318.2	0.9%	4,355.4
October	4,591.7	-1.2%	4,536.8	-5.7%	4,280.2	0.5%	4,300.6	1.0%	4,343.2	0.7%	4,374.7
November	4,606.9	-2.0%	4,514.2	-5.2%	4,281.1	0.7%	4,311.7	0.8%	4,346.0	0.8%	4,382.7
December	4,605.4	-2.6%	4,484.2	-4.8%	4,267.5	0.8%	4,303.5	0.6%	4,329.3	0.8%	4,364.0
Annual Average	4,557.1	-0.6%	4,529.0	-5.2%	4,292.2	-1.1%	4,246.6	1.1%	4,291.4	0.5%	4,327.4
Net Change vs. Pri	or Month		(422.0)		(4.66.0)		(425 C)		(420.0)		(4.05.2)
January	-		(132.9)		(166.9)		(125.6)		(120.8)		(105.2)
February	(1.5)		(3.1)		(23.7)		6.9		6.2		5.6
March	39.7		20.3		(8.2)		21.5		31.5		32.4
April	41.2		46.6		10.2		53.0		57.9		48.9
May	48.8		39.9		25.5		55.2		34.7		31.3
June	34.5		18.0		7.4		15.9		28.6		33.7
July	(25.8)		(25.9)		(40.1)		(40.7)		(21.9)		(25.3)
August	2.1		(3.1)		(11.6)		10.2		(4.5)		5.3
September	(7.0)		(24.2)		(6.3)		4.6		3.0		(0.6)
October	7.9		(4.2)		9.7		32.1		25.0		19.3
November	15.2		(22.6)		0.9		11.1		2.8		8.0
December	(1.5)		(30.0)		(13.6)		(8.2)		(16.7)		(18.7)
Total	153.6		(121.2)		(216.7)		36.0		25.8		34.7

Source: Bureau of Labor Statistics; data retrieved February, 2013 for Chicago-Joliet-Naperville, IL-IN-WI MSA Geography



## **Recent National and Regional Housing Trend**

In addition to employment statistics, CDM Smith reviewed trends in housing prices, home sales, and home building. This is of particular interest at this time due to the pivotal role housing played in the recent economic recession. In addition to broad-reaching, macro-economic impacts resulting from the collapse of the market, falling housing values left many individuals—homeowners and investors alike—with greatly-reduced net worth. As previously discussed, personal income, as well as actual and perceived wealth, play a substantial role in individuals travel decisions. Additionally, some housing statistics—released on an on-going basis— serve as a good proxy for less-frequently-updated population statistics. While there is not a one-to-one relationship, an increase in demand in the housing market or new housing starts can be indicative of a growing population. As such, CDM Smith believes that trends in the housing market are a good indicator of both short-term macroeconomic health as well as individual economic stability.

The oversupply of housing and drop in existing home prices has been a continuing drag on the economic recovery throughout the U.S. per the National Association of Home Builders, housing starts were reduced from 905,000 units per year in 2008 to only 554,000 units in 2009. In 2010, housing starts increased marginally to a seasonally adjusted annual rate of 587,000. Further increases occurred in 2011 growing to a three-year high of 609,000. The year 2012 saw a sharp increase in housing starts with a total of 780,000, a gain of 28.1 percent over 2011. Figure 3-6 presents the number of new housing units for which permits were issued in the Chicago MSA, the State of Illinois, and the United States. These values are presented as a percentage of the number of permits issued for the same month in 2006.

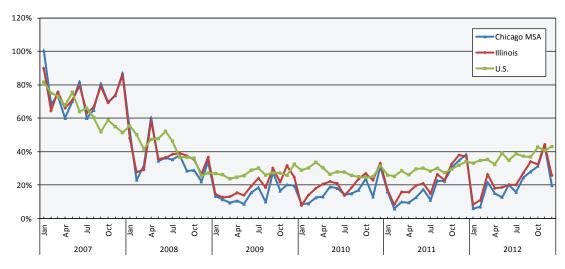


Figure 3-6: Percent of 2006 Monthly Building Permits of New Housing Units

Source: U.S. Census Building Permits Survey

In addition to the decline of new housing starts, average housing sale prices have experienced a steady decline since 2007. Figure 3-7 presents the average house price indexes (HPI) in Chicago MSA, the State of Illinois, and the country as a percentage of 2006 HPI values. Since Q4 2011, HPI has appeared to begin leveling off. HPI decline and apparent recent leveling can also be illustrated



through foreclosure rates. Per the Department of Housing and Urban Development, since April 1, 2009, foreclosure rates as a percentage of all housing units for Chicago MSA and the U.S. are 2.9 percent and 2.0 percent, respectively. Quarter 4 of 2011 shows a decrease in foreclosure rates for Chicago MSA and the U.S. The numbers reported 0.2 percent and 0.1 percent, respectively.

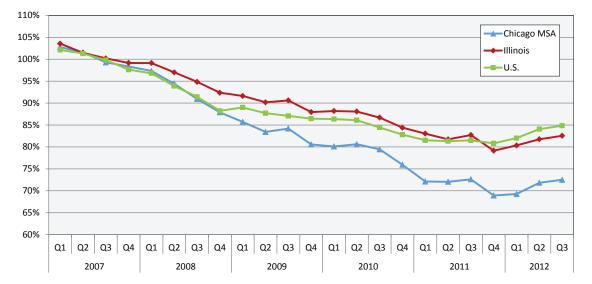


Figure 3-7: Percent of 2006 Quarterly House Price Indexes

Source: Federal Housing Finance Agency, House Price Indexes

## **Sales and Use Tax Receipts**

Sales/use tax is another good indicator of trends in overall economic health. Figure 3-8 presents seasonally adjusted sales/use tax revenues for the Illinois between 2007 and the Third Quarter of 2012 (Q3 2012). All values are indexed to Q1 2007. As illustrated, taxable spending fell sharply during the last recession (December 2007-June 2009). The State's sales/use tax revenues dropped accordingly over a period of two years, hitting its lowest level in the Q1 2009. State sales/use tax receipts have been climbing since then, suggesting and ongoing but slow economic recovery.



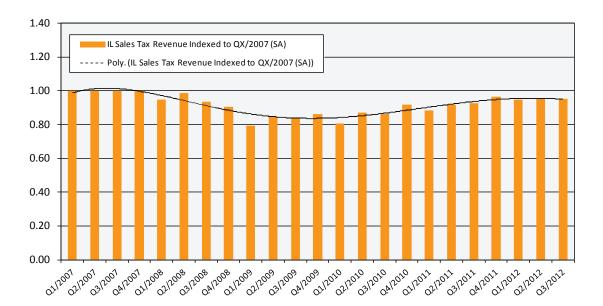


Figure 3-8: Recent Trends Illinois Sales and Use Tax Receipts

## Socioeconomic Forecasts

CDM Smith retained the services of The al Chalabi Group (ACG) to perform an independent review of CMAP socioeconomic forecasts. This independent assessment is primarily intended to provide CDM Smith with an alternative forecast to be used as one of several inputs into our adjustment of model socioeconomics. This section provides an overview of ACG's methodology and a summary of socioeconomic forecast provided by the firm.

ACG prepared its forecasts using a two-step method. ACG first established a "control total" population/employment forecasts for each county. This was achieved by comparing and synthesizing population and employment forecasts from multiple alternative forecasting bodies. Following the development of these control totals, ACG determined the available "developable land" within each township of each county. A township is a geographic subdivision within a county, typically 36 miles. Counties within the Illinois Tollway Service Area contain between nine and 37 townships each. The analysis of the "developable land" allowed ACG to determine where population/employment growth was most likely to occur within each county.

## **Comparative Analysis**

ACG primarily consulted four sources of population and employment forecasts listed below. Additional detail addressing how each company or agency calculates its forecasts is provided in the full ACG report, included as Appendix B to this document. Within each source, ACG reviewed forecasts completed in different years to discern how the forecasts were adjusted up or down to reflect then-current trends. For example, The Woods & Poole forecast was published in 1993, at the start of a period of strong economic expansion.



- Woods & Poole Economics (W&P), Washington D.C.: W&P is an independent firm specializing in producing long-term economic and demographic forecasts for the U.S., which it updates annually.
- **Moody's Analytics (formerly economy.com):** Moody's generates demographic and economic forecasts for the U.S. and other global markets. The forecasts are updated monthly using method a similar to W&P.
- Chicago Metropolitan Agency for Planning (CMAP): CMAP was formed in 2005 when the Chicago Area Transportation Study (CATS) and the Northeastern Illinois Planning Commission (NIPC) merged. CMAP is the planning agency for the seven-county Chicago metropolitan region. Prior to the formation of CMAP, NIPC had been generating regional population and employment forecasts since the 1960s. CMAP's most recent forecasts were published in 2011.
- State of Illinois, Department of Commerce and Economic Opportunity (DCEO): The Illinois DCEO occasionally publishes county-level population forecasts for Illinois'102 counties. DCEO retains demographic consultants to generate these forecasts by age and sex. The latest DCEO population forecast was generated prior to the release of the 2010 census results.

After conducting the comparative analysis for population and employment forecasts from various sources listed above, ACG prepared their estimate of the population and employment outlook for the Chicago region. The forecasts have been presented as "recommended" forecasts and discussed in detail in the following sections of this chapter.

## "Developable Land" Forecasting Method

Following an extensive, comparative review of available socioeconomic forecast, ACG performed an analysis of available, developable land. This methodology assumes that development will occur where land is abundant and inexpensive relative to other, more built-out areas. In the initial step of this process, ACG disaggregates the county-level forecasts reviewed in the previous step. This allows for the distribution of growth to a more finite level; in this case, the township geographic subunit. This distribution step is essential because characteristics of townships within each county can vary greatly in terms of developable land, desirability, and location in relation to the transportation network. Townships within the travel demand modeling area can be at very different stages of development. While some townships are mature and cannot sustain significant growth (assuming no change in density of development), others are in the so-called "take-off" stage. With considerable availability of land and a demonstrated market demand for that land, they have far greater capacity for both economic growth and growth in population. Availability of developable land ranges from less than three percent in Proviso Township in West Suburban Cook County to more than 80 percent in Kaneville Township in Kane County. Growth pressures from adjacent townships, as well as varied accessibility levels, contribute to a wide-range of development characteristics over the 30-year forecast period. This distribution influences travel demand and trip patterns which, in turn, influence toll revenues.



ACG performed the developable land forecast analysis for the 124 townships in the CMAP region. The study region contains an additional 168 townships, most of which lack land use data. Since most of these external townships are expected to remain agricultural throughout the forecast period, the lack of data was considered acceptable. For the townships that were considered significant for the purposes of this analysis, satellite imagery was deployed to estimate land use data.

ACG used the analysis performed in this step to distribute the recommended regional forecast from comparative analysis step among all townships based on the availability of developable land. The distributed population and employment estimates were then aggregated at the county level, which are presented in the following section.

### **Recommended Forecasts**

Ultimately, ACG population and employment forecasts for the Illinois Tollway region are based on the analysis of past trends; the comparative, independent regional (MSA and CMAP) forecasts; the outlook for development of Illinois counties in the Chicago and Rockford MSAs; and the distribution of regional socioeconomic forecasts to sub-areas (townships) and their aggregation to counties. The result is presented as ACG's "recommended" forecasts. As previously indicated, the ACG analysis is one of several inputs into the adjustments that CDM Smith ultimately made to the regional travel demand model. However, this forecast does present an alternative and counterpoint to the regionally-adopted CMAP forecast. Table 3-9 presents a summary of countylevel adjusted population forecast in the region, as recommended by the ACG. As noted, the population of the seven-County CMAP region is estimated to grow to almost 10.4 million by the year 2040, equating to growth of 0.7 percent per year over the 30 years. The 15-County Illinois Tollway service area is estimated to reach 12.0 million in population by the same year with a growth of 0.7 percent per year. Table 3-10 presents the estimated employment forecasts by county for the 15-County Illinois Tollway service area. Region wide employment is estimated to 7.5 million by the year 2040, growing at a rate of 1.0 percent per year over 30 years. This is inline with growth over the previous 30 years, though it exceeds growth experience between 2007 and 2012.

Figure 3-9 through Figure 3-11 show the ACG-recommended population forecasts in 10-year increments between 2010 and 2040. This data is expressed as percent change per decade per square mile by township to provide a more consistent basis for analysis and ease of comparison.

As illustrated in Figure 3-9, population growth between 2010 and 2020 is distributed throughout all parts of the region. Areas that are anticipated to experience the greatest growth are areas where growth had been accelerating prior to the recession. Northern Will, Southern Cook, DuPage, and Lake Counties, as well as those townships immediately west of DuPage, Northern Cook, and Lake counties. The City of Chicago is estimated to grow by 145,000 persons between now and 2020. Much of this growth is driven by absorption of the large numbers of recently-constructed vacant housing units, and several large parcels that are expected to be developed within the forecast period, such as initial development in the former U.S. Steel South Works site, along the lakefront, and in areas adjacent to those areas recently renovated/revitalized.



Growth in population between 2020 and 2030, illustrated in Figure 3-10, is anticipated to shift to the townships in collar counties to the north, south, and west of the core Chicago metropolitan area. Population growth is anticipated to occur in McHenry, Kane and Will Counties. Northern Cook and DuPage counties are expected to experience growth, albeit at a slower pace than in the previous decade, as they reach build out capacity and become more mature communities. The City of Chicago is expected to continue growing in those areas previously cited, but also at a reduced rate, adding approximately 25,000 persons over the course of the decade.

Table 3-9: ACG-Recommended Population Forecasts by County

	Total	Total	Total	Total	Total	
	Population	Population	Population	Population	Population	AAPC
County Name	2010	2015	2020	2030	2040	2010-2040
Counties within CMAP Region						
City of Chicago - Cook County	2,694,600	2,759,300	2,840,000	2,865,000	2,900,000	0.2%
Suburban Cook - North	1,062,700	1,067,700	1,073,800	1,090,800	1,099,100	0.1%
Suburban Cook - South	794,000	807,500	824,200	865,000	887,700	0.4%
Suburban Cook - West	642,700	646,700	651,700	653,000	655,300	0.1%
Cook County - Total <sup>(1)</sup>	5,193,900	5,281,200	5,389,800	5,473,800	5,542,100	0.2%
DuPage County <sup>(1)</sup>	917,100	940,300	969,200	995,500	1,010,900	0.3%
Kane County <sup>(1)</sup>	515,700	544,700	580,000	676,700	824,600	1.6%
Kendall County <sup>(1)</sup>	114,800	132,100	153,600	199,300	248,200	2.6%
Lake County <sup>(1)</sup>	703,900	743,900	793,700	882,000	941,200	1.0%
McHenry County <sup>(1)</sup>	309,000	322,100	338,400	419,400	542,300	1.9%
Will County <sup>(1)</sup>	677,900	738,200	813,300	1,049,200	1,275,000	2.1%
Seven-County CMAP Region	8,432,200	8,702,500	9,038,100	9,695,800	10,384,300	0.7%
Counties External to CMAP Region						
Boone County (2)	54,200	58,000	62,800	69,400	77,000	1.2%
DeKalb County <sup>(1)</sup>	105,200	109,300	114,500	124,400	132,000	0.8%
Grundy County (1)	50,000	52,700	56,100	63,300	71,600	1.2%
Kankakee County	113,500	115,700	118,400	126,400	137,500	0.6%
LaSalle County	113,900	114,300	114,800	115,600	117,400	0.1%
Lee County	36,000	36,100	36,200	36,400	37,300	0.1%
Ogle County	53,500	54,200	55,000	56,500	58,000	0.3%
Winnebago County <sup>(2)</sup>	295,600	304,100	314,800	334,500	354,500	0.6%
	0.054.400	0.546.000	0.040.700	40.622.400	44 250 500	0.70/
Sum of above Counties	9,254,100	9,546,900	9,910,700	10,622,400	11,369,500	0.7%
Chicago MSA <sup>(3)</sup>	9,461,700	9,761,100	10,132,600	10,857,800	11,593,200	0.7%
Rockford MSA	349,800	362,200	377,600	403,900	431,500	0.7%
Combined Chicago & Rockford MSA's  (1) Part of the Chicago MSA.	9,811,500	10,123,300	10,510,200	11,261,700	12,024,700	0.7%

<sup>(3)</sup> Includes in addition to the above Illinois counties, Jasper, Lake, LaPorte, Newton, and Porter Counties in Indiana and Kenosha County in Wisconsin



<sup>(2)</sup> Part of the Rockford MSA.

Table 3-10: ACG-Recommended Employment Forecasts by County

	Total	Total	Total	Total	Total	
	Employment	<b>Employment</b>	Employment	Employment	Employment	AAPC
County Name	2010	2015	2020	2030	2040	2010-2040
Counties within CMAP Region						
City of Chicago - Cook County	1,604,900	1,616,300	1,627,700	1,648,200	1,715,000	0.2%
Suburban Cook – North	824,800	849,500	874,100	901,500	921,400	0.4%
Suburban Cook - South	334,800	361,500	388,200	437,400	468,100	1.1%
Suburban Cook - West	358,300	375,800	393,300	418,500	430,400	0.6%
Cook County – Total <sup>(1)</sup>	3,122,700	3,203,000	3,283,200	3,405,600	3,534,800	0.4%
DuPage County <sup>(1)</sup>	689,700	731,700	773,700	824,400	851,700	0.7%
Kane County <sup>(1)</sup>	257,300	305,200	353,000	433,800	509,600	2.3%
Kendall County <sup>(1)</sup>	29,800	40,000	50,300	74,600	94,500	3.9%
Lake County <sup>(1)</sup>	428,900	468,900	509,000	586,900	638,100	1.3%
McHenry County <sup>(1)</sup>	134,800	154,600	174,300	261,800	321,500	2.9%
Will County <sup>(1)</sup>	252,300	316,500	380,600	541,000	673,000	3.3%
Seven-County CMAP Region	4,915,600	5,219,900	5,524,300	6,128,000	6,623,200	1.0%
Seven-county civiAF Region	4,515,000	3,213,300	3,324,300	0,128,000	0,023,200	1.076
Counties External to CMAP						
Region						
Boone County <sup>(2)</sup>	19,800	21,800	23,700	27,500	31,500	1.6%
DeKalb County <sup>(1)</sup>	52,800	55,800	58,800	64,900	71,000	1.0%
Grundy County <sup>(1)</sup>	21,900	24,400	26,900	31,900	37,000	1.8%
Kankakee County	55,200	58,500	61,800	68,400	75,000	1.0%
LaSalle County	55,200	57,200	59,200	63,100	66,900	0.6%
Lee County	15,500	16,700	18,000	19,200	20,200	0.9%
Ogle County	23,100	24,900	26,600	30,200	32,500	1.1%
Winnebago County (2)	155,300	161,900	168,400	181,600	194,800	0.8%
Sum of above Counties	5,314,300	5,641,000	5,967,700	6,614,800	7,152,000	1.0%
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Chicago MSA <sup>(3)</sup>	5,381,500	5,712,700	6,045,600	6,709,500	7,262,900	1.0%
Rockford MSA	175,100	183,600	192,100	209,100	226,300	0.9%
Combined Chicago & Rockford	E EF6 700	E 006 300	6 227 000	6 010 600	7 400 200	1 00/
MSA's  (1) Part of the Chicago MSA.	5,556,700	5,896,300	6,237,800	6,918,600	7,489,200	1.0%



Part of the Chicago MSA.

Part of the Rockford MSA.

Includes in addition to the above Illinois counties, Jasper, Lake, LaPorte, Newton, and Porter Counties in Indiana and Kenosha County in Wisconsin.

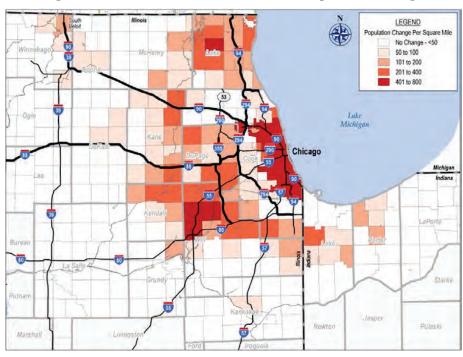
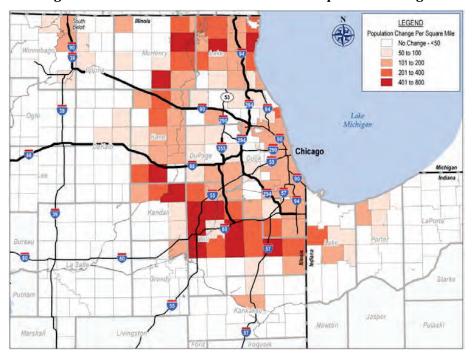


Figure 3-9: 2010-2020 ACG-Recommend Population Change





Between 2030 and 2040, population growth is expected to continue to shift outward from the urban core and collar counties. Growth patterns are illustrated in Figure 3-11. Movement to the



outer edges of the region; a strengthening of linkages to older, satellite cities; and, for the first time in the forecast period, significant areas of no change in northern and western Cook and DuPage Counties. Growth in the City of Chicago proper continues to slow, projecting the addition of 35,000 people in this 10-year span.

The general picture is that of a central city (Chicago) remaining vibrant and growing, but reaching capacity; a southern portion of the region growing to levels previously experienced in the north and west of the metropolitan area; sustained regional growth, driving higher densities at the region's edges; and a maturing inner suburban area. Over the forecast period, the seven-county CMAP region grows from 8,432,200 to 10,384,500, an increase of 23.2 percent or an average of 0.7 percent per year. The eight counties external to the CMAP region are projected to grow at approximately the same pace, from 9,254,100 to 11,369,500 by 2040; an increase of 22.9 percent, or an average of 0.7 percent per year.

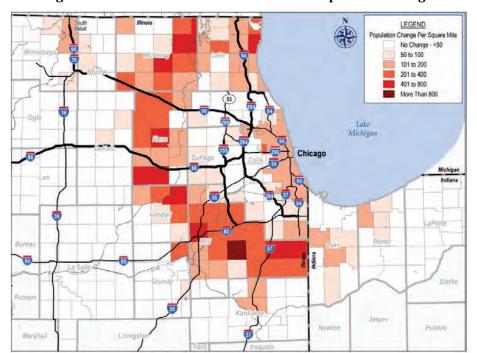


Figure 3-11: 2030-2040 ACG-Recommend Population Change

Figure 3-12 through Figure 3-14 represent the corresponding changes in employment for the forecast period, also in 10-year increments from 2010 through 2040. As shown in Figure 3-12, employment growth is anticipated to occur throughout the region. Growth is well-distributed and few areas indicate no employment growth. Stronger employment growth in the collar counties reflects areas of population growth. This is particularly notable in concert with sustained growth around O'Hare, in the City of Chicago, and in key satellite cities.



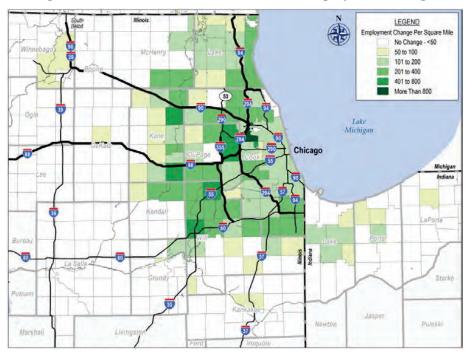


Figure 3-12: 2010-2020 ACG-Recommend Employment Change

Employment growth between 2020 and 2030, as illustrated in Figure 3-13, continues at the edges of the core county region to service the rapidly developing southwest sector of the region, such as Will County.

Figure 3-14 depicts the expected employment change for the period between 2030 and 2040. During the 10-year period, employment growth becomes more diffuse, reflecting the newer and lower-density residential growth patterns. Employment in the City of Chicago increases by 22,800 between 2010 and 2020; 20,500 between 2020 and 2030; and 66,800 between 2030 and 2040. Collectively, employment in the outer townships increases by 284,000 in the period between 2010 and 2020; 354,000 between 2020 and 2030; and 287,300 between 2030 and 2040. Over the 30-year forecast period between 2010 and 2040, the CMAP and 15-county employment is estimated to grow by 34.7 and 34.6 percent respectively, or an average of 1.0 percent per year per county.

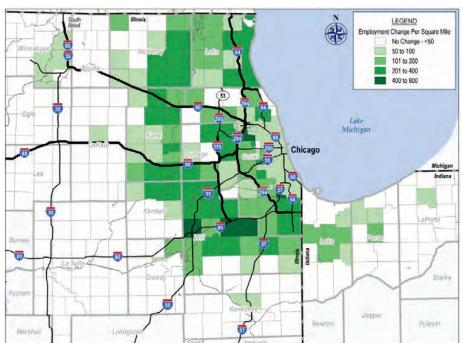
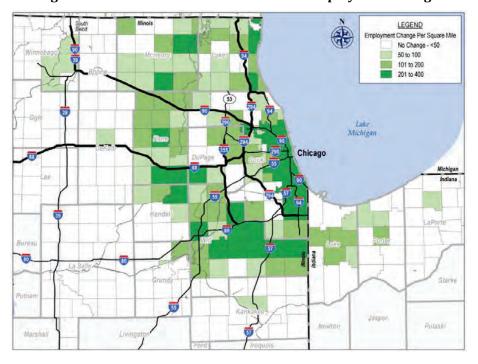


Figure 3-13: 2020-2030 ACG-Recommend Employment Change





## **Comparison of ACG Forecasts to Other Sources**

Direct comparison of forecasts can be difficult, owing to the use of slightly different areas studied by each forecasting body. The most common geography amongst the selected forecasts is the six-county Northern Illinois Planning Commission (NIPC) region, which includes Cook, DuPage, Kane, Lake, McHenry, and Will Counties. These six counties constitute the Chicago MSA, as defined in the 1960s and 1970s, though the definition has since changed. Figure 3-15 represents four past and current W&P population forecasts (released in 2004, 2008, 2010, and 2012), past and current NIPC/CMAP population forecasts (released in 2004 and 2011), Moody's current forecast (obtained by ACG in May 2012), and the Illinois DCEO. The actual population trend for the years 1970-2010 is also shown in the Figure 3-15.

The maximum variation of any of the W&P population forecasts, from their centerline average, is 7.4 percent, compared with the 9.6 percent for the equivalent variations in the employment forecasts. The CMAP/NIPC population forecasts published in 2004 and 2011, and the Illinois DCEO forecasts are almost identical to the W&P 2004 forecasts. The latest W&P population forecasts, published in 2012, are near the mid-range of all forecasts and slightly higher than the Moody's forecasts. The 2012 W&P forecast for 2040 is 3.6 percent higher than Moody's. Subsequent details of individual forecasts are included in the attached Appendix B to this report. ACG's recommended population forecast is shown as thick red line between W&P 2010 and 2012 forecasts. The general growth trend is estimated to be similar to W&P 2010 forecast, with population reaching almost 10.1 million in the year 2040.

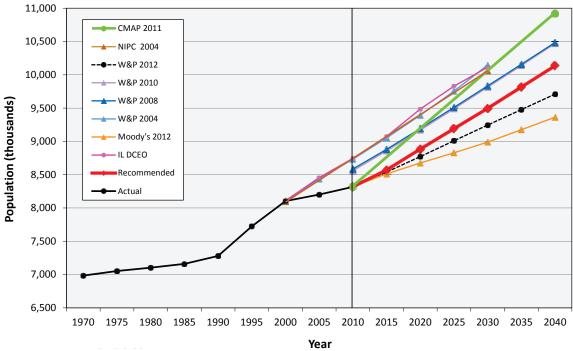


Figure 3-15: Comparative Population Forecasts for Six-County Region

Source: The al Chalabi Group, August 2012



The six-County NIPC regions represents more than 90 percent of the 14-County Chicago MSA's employment. Figure 3-16 illustrates three past and current W&P employment forecasts (released in 2008, 2010, and 2012), current CMAP employment forecasts (released in 2011), and Moody's current employment forecast (obtained by ACG in May 2012). It is important to recognize that employment data varies significantly depending upon the source. The definition of employment datasets as adopted by CMAP, and Moody's is different from the rest of the sources depicted in Figure 3-16. The CMAP and Moody's use the employment definition as defined by the Bureau of Labor Statistics (BLS); whereas other include Bureau of Economic Analysis (BEA) employment definition measures total employment, including the self-employed and sole-proprietors. The intent here is to understand and compare long-term growth trends as predicted by different sources. The recommended employment forecast by ACG is depicted by the thick red line.

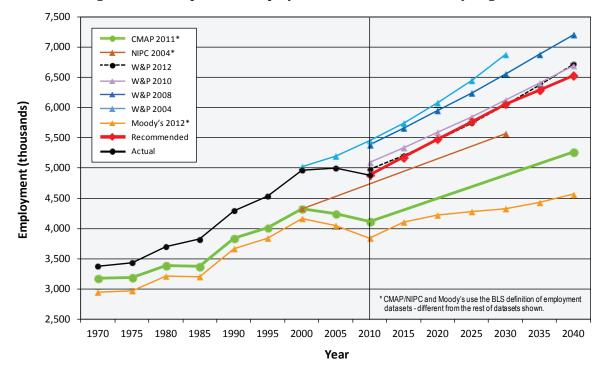


Figure 3-16 Comparative Employment Forecasts: Six-County Region

Source: The al Chalabi Group, August 2012

As shown in Figure 3-16, the latest W&P 2012 forecasts (published in the fall of 2011 and based on employment data through mid-2009) is near the low end of the range of their previous forecasts. With the exception of the period 2010-2020, the trend of Moody's forecasts diverge from the W&P forecasts. CMAP estimates their forecast for the year 2040 with a trend slightly lower than W&P, but higher than the Moody's. The ACG-recommended employment forecast is broadly similar in trend as that of the W&P 2012 forecasts. ACG adjusted their employment forecast slightly lower through 2015 to account for lower actual 2010 employment. The ACG forecasts are also slightly lower for 2040 to adjust for lower immigration assumptions, as discussed the attached Appendix B.



Again, the forecasts shown in this chapter are presented for comparative purposes, to show the range of forecasts available and the results of CDM Smith's chosen independent economic forecasters. It is not necessarily indicative of the values ultimately adopted by CDM Smith in the modeling process.



# Chapter 4

# Traffic and Revenue Estimation Approach

This chapter presents a summary of the traffic and revenue analysis conducted for the Illinois Tollway, starting with an overview of the travel demand modeling process, followed by discussion of the primary inputs and assumptions underlying the modeling process.

## **Analytical Methodology**

This section describes the travel demand modeling procedures used to estimate annual transactions and revenues on the Illinois Tollway. Figure 4-1 illustrates the modeling process schematically. All work is built upon the foundation of the regional planning model datasets developed by the Chicago Metropolitan Agency for Planning (CMAP). The type of data provided to CDM Smith included: input files representing highway and transit networks, data on land use and socioeconomic forecasts; and trip tables representing the distribution and volume of vehicle trips. The CMAP regional model is implemented in the EMME software platform, though the model was converted to a Cube/Voyager software platform for compatibility with CDM Smith's toll diversion methodology and associated algorithms. As such, all the aforementioned CMAP inputs were converted for use in a Cube/Voyager environment before subsequent use.

Prior to tolling analysis, the model was calibrated using 2010 traffic counts and toll transaction data, with specific attention given to Illinois Tollway facilities and facility corridors to ensure that the model was accurately reflecting current conditions. Trip tables were extensively adjusted, and networks were checked and updated to include projects critical to the Illinois Tollway system.

The calibrated model was then modified to represent future year conditions, and to analyze a wide range of future year network and tolling scenarios for 2012, 2015, 2016, 2017, 2019, 2020, 2023, 2024, 2026, 2030 and 2040. Again, each network was extensively reviewed for consistency, inclusion, and proper coding of programmed transportation improvements. Intermediate-year networks and trip tables were then developed to represent each project milestone year of the "Move Illinois" Tollway Capital Improvement Program. Official documentation of planned transportation network improvements and schedule were used to develop highway networks representative of year-by-year construction progress. An overview of the Move Illinois program can be found in Chapter 1, while specific program details—including dates and project attributes—can be found under the "Assumptions" section in Chapter 5. A set of traffic and revenue forecasts were developed for each scenario.

## **Primary Model Inputs**

The Illinois Tollway toll diversion model consists of three primary components:

- Traffic Analysis Zones
- Highway Network
- Trip Tables



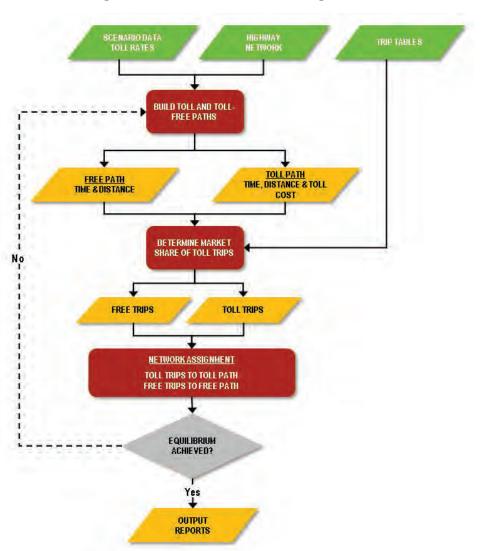


Figure 4-1: Travel Demand Modeling Process

The following sections define these three components as they apply to the Illinois Tollway model, and the model's two cost parameters: Value of Time (VOT) and Vehicle Operating Cost (VOC).

## **Traffic Analysis Zone System**

For analytical purposes, travel demand models divide a large region into small areas of relatively homogenous characteristics, called Traffic Analysis Zones (TAZ). The TAZ system was incorporated from the CMAP model, and comprises 1,961 zones. The same TAZ system was used for all analysis years. Figure 4-2 shows the extent of the TAZ boundaries in the Illinois Tollway model. Areas not depicted in Figure 4-2 are considered to be external zones and are represented in aggregate.



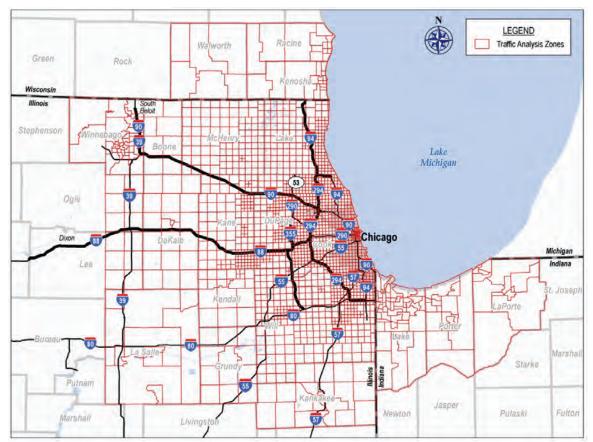


Figure 4-2: Traffic Analysis Zone (TAZ) Boundaries

## **Highway Networks**

The highway networks were updated to include the fields necessary to perform toll diversion calculations and also to better represent traffic movements on the Illinois Tollway system. In developing the highway networks, all the important link parameters, such as speed, capacity, number of lanes, and volume-delay function designations were inherited from the CMAP model and later refined. CDM Smith performed a review of the regional transportation plan documents to ensure that the funded projects assumed in the long range plan are also included in the network being used for the current study. Specific network improvements are discussed in detail in Chapter 5 and Chapter 6. Representative highway networks were developed for each of the modeling years as mentioned previously. Figure 4-3 portrays the overall extent of the highway network.



Figure 4-3: Chicago Regional Highway Network

### **Trip Tables**

To better represent variations between time periods within a day, the CMAP model divides daily trips into eight time periods, shown in Table 4-1 below. Trips within each time period are further divided into four vehicle classes: passenger cars (PCs) and three commercial vehicle (CV) categories: light, medium, and heavy vehicles. The CMAP overnight time period (7:00 PM to 6:00 AM) does not match the Illinois Tollway's overnight CV toll rate discount period (10:00 PM to 6:00 AM). When extracting results from the toll diversion model, this time discrepancy was reconciled as part of the model output post-processing procedure.

**Table 4-1: CMAP Modeling Time Periods** 

	•	
Time Period	Hours Represented	Duration (Hours)
Pre-AM	6:00 am to 7:00 AM	1
AM peak	7:00 AM to 9:00 AM	2
Post-AM	9:00 AM to 10:00 AM	1
Midday	10:00 AM to 3:00 PM	5
Pre-PM	3:00 PM to 4:00 PM	1
PM peak	4:00 PM to 6:00 PM	2
Post-PM	6:00 PM to 7:00 PM	1
Night	7:00 PM to 6:00 AM	11
Total		24



### **Value of Time**

Value of time (VOT) is an important variable in the analysis of toll projects that indicates driver's willingness to pay in exchange for a travel-time saving. Different methods were used to calculate the VOTs for passenger cars versus commercial vehicles.

### **Passenger Car VOT**

For passenger car drivers, the VOT is a function of: (1) the purpose of the trip; (2) the time of trip (peak versus off-peak); and (3) the income status of the driver. To develop VOT for the passenger car travelers in the study region, CDM Smith developed individual VOT estimates for each TAZ. The computation methodology involved using U.S. Census Bureau's 2010 American Community Survey data at the tract level. CDM Smith started by calculating the average household worker hours per year within each tract, using tract-level data for number of hours worked and total number of households. The median household income was used in conjunction with this information to determine a representative VOT by census tract, thereby accounting for the variance among incomes throughout the region. The tract-level VOT data was then applied at the TAZ-level. VOTs for each TAZ were calculated for each of the eight time periods using a "Perception Weighting" factor to account for the specific trip activity. Peak-period trips were weighted more heavily than off-peak trips.

Table 4-2 shows the minimum, average, and maximum passenger car VOTs used in the model by time period, calculated in 2012 dollars. CDM Smith has assumed inflation will be 2.0% per year throughout the forecast period, and that VOT will increase in tandem with inflation.

Table 4-2: Passenger Car Value of Time by Time Period (2012 Dollars/Minute)

Time Period	Median
AM & PM Peak Periods (1)	\$0.24
Midday	\$0.23
Nighttime	\$0.19

(1) Includes pre-peak and post-peak periods

#### **Commercial Vehicle VOT**

The VOT for CVs was determined through a Monte Carlo simulation. CDM Smith conducted an extensive review of published literature on CV VOT. From this review, four criteria stood-out as important determinants of CV VOT. These four variables, and the range of choices within each variable, are shown in Table 4-3. The table also shows the market share of each choice within each of the four criteria. These values were obtained from the 2007 Commodity Flow Survey (CFS) prepared by the Research and Innovative Technology Administration's (RITA) and the Census Bureau. The last two columns of the table indicate the average VOT and standard deviation amongst sources for each of the four criteria. As the table illustrated, the standard deviations are high, generally exceeding the average value themselves. This implies high variability amongst the sources. For this reason, it was not sufficient to simply use the average values.



Table 4-3: Commercial Vehicle Value of Time Criteria (2012 Dollars/Minute)

				Standard
Criteria	Choices	Market Share	Average VOT	Deviation
1. Type of Ownership	Private	21%	\$0.87	\$0.51
	For-Hire	79%	\$1.20	\$0.67
2. Length of Haul	Very short (<50 miles)	10%	\$0.47	\$0.66
	Short (50-100 miles)	7%	\$0.61	\$0.86
	Medium (100-250 miles)	15%	\$0.91	\$1.27
	Very long (250+ miles)	68%	\$1.12	\$1.57
3. Type of Load	Homogeneous	50%	\$0.57	\$0.92
	Heterogeneous	50%	\$0.51	\$0.57
4. Value of Cargo	Low value	75%	\$0.66	\$0.92
	High value	25%	\$0.94	\$1.32

Monte Carlo simulation of the above parameters was used to determine VOT for commercial vehicles. There are 32 different permutations on CV trips using the choices available in Table 4-3. For example, one combination is a "For-Hire" truck that travels a "Very Long Distance" with a "Heterogeneous" and "High Value" truck load. The mean VOTs and VOT standard deviations for this CV trip combination were used to create a lognormal VOT distribution from which sample VOTs were drawn. This same procedure was followed for the other 31 combinations. To ensure that each of these 32 CV trip types had at least 100 samples, a total of 4,000 samples were drawn to estimate the average CV VOT.

Table 4-4 shows the average VOTs for light, medium, and heavy vehicles, which were obtained from the Monte Carlo simulations and used in the toll diversion model. As with the Passenger Car VOTs, CDM Smith has assumed a rate of inflation of 2.0 percent per year throughout the forecast period, and that CV VOTs will increase in tandem with inflation.

Table 4-4: CV Value of Time by Vehicle Type (2012 Dollars/Minute)

Commercial Vehicle Type	Illinois Tollway Rate Tier	VOT
Small	2	\$0.72
Medium	3	\$0.84
Large	4	\$0.84

### **Vehicle Operating Cost**

The Vehicle Operating Cost (VOC) is a cost parameter used in the model similar to VOT, except VOC is priced in units of distance (cents per mile) rather than time (cents per minute). The VOC includes ownership costs, such as vehicle maintenance and tires, but the primary cost component is fuel, which is dependent upon the average fuel efficiency of vehicles currently driven. The following assumptions were made in calculating VOC for the Illinois Tollway model. Table 4-5 shows the VOC by vehicle type in nominal (inflation-adjusted) dollars.

 Gasoline Prices: The average gasoline price for 2012 in the Chicago area was \$3.98 per gallon. CDM Smith assumes that gasoline will remain at similar price levels (in 2012



- dollars) throughout the forecast period, but in nominal (current year) dollars, that fuel prices will increase at 2.0% per year (in-line with inflation).<sup>(1)</sup>
- Fuel Efficiency: CDM Smith has assumed fuel efficiency for all vehicle types will increase over time. For example, passenger car fuel efficiency is currently 25.4 miles per gallon (mpg), but will increase to 35.7 mpg in 2040.<sup>(2)</sup>
- Maintenance and Tire Cost: CDM Smith has assumed vehicle maintenance costs will increase at 2.0% per year (in-line with inflation).<sup>(3)</sup>

Table 4-5: Vehicle Operation Costs by Vehicle Type and Model Year (\$ per mile)

	Rate Tier 1	Rate Tier 2	Rate Tier 3	Rate Tier 4
Year	Passenger Cars	Small Trucks	Medium Trucks	Heavy Trucks
2012	\$0.23	\$0.46	\$0.69	\$0.84
2013	\$0.23	\$0.47	\$0.71	\$0.86
2014	\$0.23	\$0.48	\$0.72	\$0.87
2015	\$0.24	\$0.49	\$0.74	\$0.88
2016	\$0.24	\$0.50	\$0.75	\$0.90
2017	\$0.24	\$0.51	\$0.77	\$0.91
2018	\$0.24	\$0.52	\$0.78	\$0.93
2019	\$0.24	\$0.53	\$0.80	\$0.94
2020	\$0.25	\$0.54	\$0.81	\$0.96
2025	\$0.26	\$0.60	\$0.90	\$1.04
2030	\$0.27	\$0.66	\$0.99	\$1.12
2035	\$0.29	\$0.73	\$1.09	\$1.22
2040	\$0.31	\$0.81	\$1.21	\$1.32

<sup>(3)</sup> Source: AAA Your Driving Costs 2011 Edition



4-7

<sup>(1)</sup> Gas price data sourced to U.S. Energy Information Administration. Data retrieved in April 2012.

<sup>(2) 2000-2011</sup> fuel efficiency data was extracted from Summary of Fuel Economy Performance published by National Highway Traffic and Safety Administration in March 2012. Fuel efficiency values for 2012 through 2040 were estimated using the 2000 to 2011 fuel efficiency trend.

## **Additional Inputs**

CDM Smith further refined the travel demand model based on data collection efforts specific to the Greater Chicago region, including: traffic counts, travel time surveys and the economic growth Study. The travel time surveys and traffic counts were used to calibrate the model, while the results of the economic growth study were used to update the base and future year trip tables.

#### **Traffic Counts**

The Illinois Department of Transportation performs traffic counts at more than 1,900 locations in the Chicago region. The most recent counts were obtained and coded in the travel demand model.

### **Travel Time Surveys**

Travel time surveys are conducted on a regular basis on behalf of the Illinois Tollway using probe vehicles outfitted with a GPS sensor. CDM Smith also makes use of Illinois Tollway telemetry and other sources of publicly-available traffic data. The accumulated travel time/speed data was used to ensure that the model was providing an accurate representation of observed conditions. Where speeds were found to deviate in critical areas, they were adjusted and the model rerun and checked.

Supplemental travel time surveys were conducted specifically for this Investment-Grade Study along four major routes in northern Cook County. These four routes are also illustrated in Figure 4-4.

- 1. Route 1: US-12/US-45/US-21 from Willow Road to 22nd Street
- 2. Route 2: IL-83 from I-90 to I-55
- 3. Route 3: IL-53 from Lake Cook Road to I-88
- 4. Route 4: US-20 (Lake St) from I-294 to Bloomingdale Road.

Additional travel time data was collected specifically for the study of the proposed EOWA. Further details of these surveys are provided in Chapter 6.

## **Economic Growth Study**

As addressed in detail in Chapter 3, the al-Chalabi Group (ACG) conducted an independent review of economic growth forecasts. The most recent population, employment, and economic activity data was used for this economic growth review, which included impacts of the recent recession on short and long-term growth forecasts for the region as a whole. ACG's updates to the CMAP socioeconomic forecasts were incorporated into the base and future year trip tables. Following receipt of the ACG forecast, CDM Smith performed a third review, developing a distinct socioeconomic data set that incorporated elements of both CMAP and ACG analyses.

#### **Model Structure**

The first step in the toll modeling process is to compute travel times and travel costs between each origin-destination zone pair for a tolled and free path (known as the "skim process"). Travel time cost (VOT) is expressed in cents per minute, and distance cost (VOC) is expressed in cents per mile. Summed together, these two costs (VOT+VOC) represent the "Generalized Cost" of a



travel path. Congested travel time changes with each iterative loading until equilibrium is reached. Matrices depicting the generalized cost between each origin-destination TAZ pair were developed using a path-building process in the model. After the toll cost and non-toll cost are calculated between each origin-destination pair, the ratio of these costs is calculated as follows:

CR= (Toll Path Cost)/(Free Path Cost)

CR = (VOT\*Tt+OC\*Dt+Toll)/(VOT\*Tf+OC\*Df)

CR = Cost Ratio

VOT = Value of Time

Tt = Travel Time on Toll Path

*Dt* = Distance traveled on Toll Path

*Tf* = Travel Time on Free Path

*Df* = Distance traveled on Free Path

*Toll* = Toll Cost

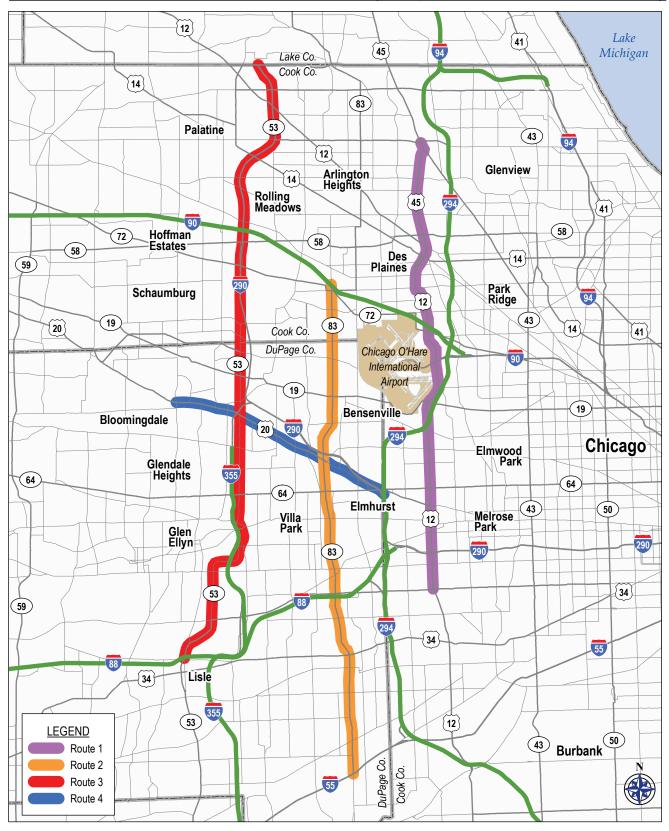
*OC* = Vehicle Operating Cost

The cost ratio calculated for each movement is then used to split each trip table into "toll" and "non-toll" trip tables. A toll diversion curve specifies the percent of traffic that will be allocated to the toll path, as a function of the cost ratio. The toll diversion curve used for this study resembles an S-curve that assumes that if the costs of the two paths are equal, the trip maker would be indifferent and trips would be distributed evenly between toll and free paths. As the toll path cost increases, the share of tolled trips decreases and more trips are assigned to the free path.

The traffic assignment methodology used in this study, referred to as a "user equilibrium assignment," is the method generally applied in travel demand models. This methodology inherently takes into account vehicle operating costs for both free and toll paths, including potentially higher vehicle operating costs for using a longer toll-free path. Initially, all toll trips are assigned to the toll path and all non-toll trips to the non-toll path. This process is repeated until a user equilibrium criterion is satisfied, and no further rerouting is possible without incurring higher user costs. In some iterations, toll path traffic may shift to the non-toll path, but in later iterations this traffic may shift back to the toll path, as the travel time on the non-toll path increases due to higher traffic volumes.

Information obtained from the assignment process included the number of vehicles using the highway system on the non-toll and toll paths, as well as other performance measures, such as degree of congestion, vehicle miles traveled, and travel time. The number of vehicles assigned to the toll facility was used for revenue estimation.







#### **Base Year Model Calibration**

Prior to performing the tolling analysis, the travel demand model was calibrated for 2010 observed traffic levels and travel times/travel speeds. In the traffic volume calibration process, the model was calibrated to roadway volumes along screenlines (and cutlines), as well as at mainline toll plazas on the Illinois Tollway. The following sections describe the calibration process.

#### **Screenline Volume Calibration**

Figure 4-5 shows the locations of the 10 traffic volume screenlines used to calibrate the base year travel demand model. Table 4-6 compares the actual and model-assigned traffic volumes across each screenline. Control volumes (those volumes to which the model is calibrated) were culled through various sources. At non-Tollway locations, new counts were conducted by subconsultants to CDM Smith or were gathered from Illinois Department of Transportation (IDOT) sources. For locations on the Tollway, traffic volume data was obtained directly from 2010 toll plaza transaction data. The majority of the screenlines show that the model was well calibrated. However, there were three east-west screenlines (E, F and G) where the error exceeded 10 percent. The above normal range of errors at these screenlines was likely due to the screenlines being relatively short, and not extending the full width of the model area. All observed deviation from the screenline count was taken into account and adjusted for in the post-processing stage.

**Table 4-6: Screenline Traffic Volume Comparisons** 

Screenline	Model ADT	Count ADT	Percent Error
Α	1,698,706	1,775,681	-4.3%
В	1,240,810	1,172,521	5.8%
С	489,410	490,967	-0.3%
D	202,451	186,731	8.4%
E	608,689	525,497	15.8%
F	521,015	472,291	10.3%
G	488,650	440,150	11.0%
Н	315,698	296,902	6.3%
I	457,753	440,742	3.9%
J	270,093	254,816	6.0%
Average Percent Error	•		6.3%

**Note:** Model over- and under-assignment adjusted in model post-processing to match target counts.







Figure 4-6 shows a scatter-plot of the actual versus model-assigned traffic volumes at each screenline location. Overall, the screenline locations have an R-squared value of 0.9384.

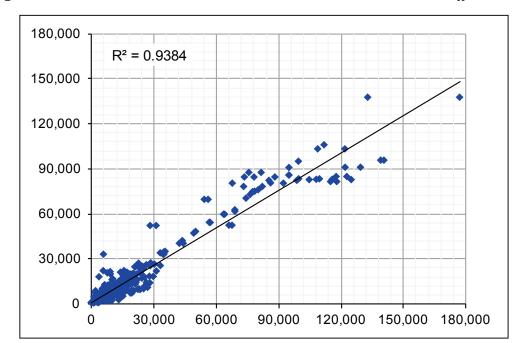


Figure 4-6: Screenline Calibration Result - Actual vs. Model-Estimated Traffic Volumes

#### **Toll Plaza Calibration**

Transaction data was obtained for all toll plazas on the Illinois Tollway system. Comprehensive data is available for all hours in the year, and by direction, vehicle payment tier and payment method (cash or I-PASS). The toll plaza links were calibrated for each modeling time period and vehicle type. The results of the calibration are shown in Table 4-7. Two plazas on southern I-355 showed traffic assignments that were greater than 10 percent, but the model assigned volumes at the remaining plazas were generally within 7 percent of actual volumes. Again, those areas at which deviation from counts was observed were adjusted for in the model post-processing stage to ensure against the potential for over-assignment and exaggeration of total traffic demand.



Table 4-7: Toll Plaza Calibration - Model-Estimated vs. Actual Traffic Volumes

		Plaza	Model	Actual	Percent
Route	Toll Plaza	Number	Assignment	Transactions	Difference
I-90	South Beloit	1	48,734	46,595	4.6%
I-90	Belvidere	5	20,721	19,482	6.4%
I-90	Marengo	7	23,837	22,807	4.5%
I-90	Elgin	9	99,577	94,817	5.0%
I-90	Devon Avenue	17	99,691	94,695	5.3%
I-90	River Road	19	74,471	70,086	6.3%
I-94	Waukegan	21	69,735	65,341	6.7%
I-94	Edens Spur	24	52,821	50,990	3.6%
I-294	Touhy Avenue	29	95,154	90,536	5.1%
I-294	Irving Park Road	33	112,026	105,661	6.0%
I-294	Cermak Road	35	158,995	150,438	5.7%
I-294	82nd Street	36	77,665	74,468	4.3%
I-294	83rd Street	39	76,526	72,620	5.4%
I-294	163rd Street	41	114,120	107,935	5.7%
I-88	York Road	51	88,366	84,227	4.9%
I-88	Meyers Road	52	86,317	80,305	7.5%
I-88	Aurora	61	87,442	83,098	5.2%
I-88	DeKalb	66	19,448	18,488	5.2%
I-355	Army Trail Road	73	127,888	118,848	7.6%
I-355	Boughton Road	89	138,260	123,759	11.7%
I-355	Spring Creek	99	56,886	50,582	12.5%
Total			1,728,680	1,625,778	6.3%

Note: Model over- and under-assignment adjusted in model post-processing to match target counts.

## **Annual Traffic and Revenue**

The travel demand model output expresses traffic and revenue estimates for a typical weekday, also referred to as Average Weekday Traffic (AWT). This does not take into account seasonal variations, recurring holidays, and weekend volumes. As such, an "Annualization Procedure" was used to convert the weekday estimates into annual traffic and revenue values. Annualization factors were calculated for each direction of each toll plaza (both mainline and ramp plazas); and the factors were calculated separately for each of the four vehicle rate tiers: Passenger Cars, Small Trucks, Medium Trucks and Large Trucks. The factors were calculated using Illinois Tollway 2010 transaction data. The following numbered list shows the steps required to calculate the plazalevel factors.

- 1. Calculate Ratio between Average Weekday Traffic (AWT) and Average Annual Daily Traffic (AADT):
  - a. Extract 2010 daily transactions at each plaza by direction and rate tier.
  - b. Obtain AADT volume by calculating average of all days of the year.



- c. Obtain AWT volume by calculating average of Monday through Friday transactions (excluding Holidays that occur on a weekday).
- d. Divide AWT volume by the AADT volume
- 2. Multiply AWT-to-AADT ratio by 365 to obtain "Annualization Factor" by Plaza, direction and rate tier.
- 3. Multiply model output by "Annualization Factor" to obtain annual transactions.

Table 4-8 shows the annualization factors for mainline plazas by rate tier, and the plaza average. Though the table only shows mainline plazas, factors were also calculated for all ramp plazas as well. As the table illustrates, several plazas have average Annualization Factors that exceed 365 (the number of days in the year). This typically occurs at rural plazas, such as Plaza 69, where average traffic volumes on weekends (due to recreational traffic) are actually higher than on weekdays. However, at the majority of plazas, especially at high-volume urban plazas (such as Plaza 35) the Annualization Factors are less than 365.

The annualization factors by rate tier show even stronger variation. For example, Plaza 69 has the highest total Factor (374). The Annualization Factor for Passenger Cars alone at Plaza 69 is even high (404), but among the three truck rate tiers, the Annualization Factors at Plaza 69 are only slightly above average. At Plaza 35, the truck Annualization Factors are well below 365, as there is relatively little truck traffic at that plaza on weekends.

Table 4-8: Annualization Factors for Mainline Toll Plazas

	Total for				
	All Rate	Passenger	Small	Medium	Large
Plaza	Tiers	Cars	Trucks	Trucks	Trucks
01-South Beloit	362	388	307	355	302
05-Belvidere	364	365	366	367	368
07-Marengo	372	391	300	360	300
09-Elgin Rd	350	359	291	323	294
17-Devon Ave	344	348	286	305	288
19-River Rd	362	366	291	315	300
21-Waukegan	361	381	294	328	286
24-Edens Spur	353	358	299	324	295
29-Touhy Ave	334	340	285	300	281
33-Irving Park Rd	333	338	285	299	283
35-Cermak Rd	333	343	284	302	286
36-82nd St	331	340	284	305	289
39-83rd St	333	343	284	307	290
41-163rd St	336	350	288	309	291
51-York Rd	339	343	286	296	279
52-Meyers Rd	336	340	285	295	279
61-Aurora	339	345	284	303	283
66-DeKalb Mainline	371	400	293	325	289
69-Dixon Mainline	374	404	302	343	297
73-Army Trail Rd	332	336	280	297	281
89-Boughton Rd Mainline	336	342	282	299	279
99-Spring Creek	339	346	284	306	283



## Chapter 5

# Traffic and Revenue Estimates – Existing System

This chapter presents weekday and annual traffic and revenue forecasts for the existing Illinois Tollway system for the years 2013-2040, without incorporation of the proposed Elgin-O'Hare Western Access (EOWA). These estimates are derived using the methodology described in Chapter 4 and are presented as "expected revenue", or revenue that would be obtained if each vehicle passing through a toll collection plaza paid exactly the published toll rate based on the vehicle's classification, time of day, and toll payment method. It does not include revenue impacts resulting from overpayment, underpayment, toll equipment malfunctions, or toll evasion; nor has any analysis of these toll revenue variance factors been included in this report. This chapter first describes four sets of assumptions underlying the traffic and revenue forecasts: (1) basic assumptions; (2) planned capacity improvement assumptions; (3) toll rate assumptions; and (4) I-PASS usage rate assumptions. The daily and annual toll revenue estimates follow these assumptions. Any departure from these assumptions may materially affect actual traffic and gross toll revenue performance.

## **Basic Assumptions**

Traffic and toll revenue estimates for the Illinois Tollway system are based on the following basic assumptions:

- 1. Tolls will continue to be collected under the rate structure currently in effect, and the future commercial vehicle toll rate structure, as approved by the Illinois State Toll Highway Authority Board in 2011.
- 2. The Illinois Tollway Capital Program, "Move Illinois: The Illinois Tollway Driving the Future," will be implemented as scheduled. Major elements of the improvement program are set forth in Table 5-1. This does not include the EOWA, which is described in Chapter 6.
- 3. Non-Tollway regional transportation network improvements will be implemented in accordance with the schedule shown in Table 5-2. No significant capacity will be added to the competing highway or transit system beyond those improvements already programmed, as shown in Figure 5-2.
- 4. Motor fuel will remain in adequate supply and future increases in fuel prices will not substantially exceed the overall rate of inflation over the long term. Average fuel efficiency will not dramatically increase during this period.
- 5. No local, regional, or national emergency will arise that will restrict the use of motor vehicles.



6. Economic growth and development throughout the Illinois Tollway corridor will occur generally, as presented in Chapter 3, and as implemented in the Illinois Tollway travel demand models.

Any significant departure from the above basic assumptions could materially affect the estimates for traffic and gross toll revenue on the Illinois Tollway system presented in this report.

## **Planned Transportation Improvements**

Planned transportation network capacity improvements in the Chicago region, including both Illinois Tollway projects and Illinois Department of Transportation (IDOT) projects, could significantly impact the Illinois Tollway system. County and local transportation agencies have no planned transportation projects that are anticipated to impact the Illinois Tollway system. A review of the regional transportation plan documents was performed to ensure that the funded projects assumed in the long range plan are also included in the network used for the current study. Representative highway networks were developed for each of the modeling years and modeled if the years perceived major construction impacts or capacity improvements. Due to the numerous impacts and improvements occurring on the Tollway system in coming years, 16 of the 29 years in the 2012 to 2040 forecast period were modeled: 2012-2020, 2022-2026, 2030, and 2040.

#### **Illinois Tollway Projects**

Planned transportation improvements on the Illinois Tollway were identified from the Illinois Tollway's latest capital program, "Move Illinois: The Illinois Tollway Driving the Future". This \$12 billion Illinois Tollway capital program contains significant projects, including rebuilding and widening the Jane Addams Memorial Tollway (I-90), constructing new interchanges to connect the Tri-State Tollway (I-294) to Interstate 57, and building the new, all-electronic Elgin-O'Hare Western Access.

Table 5-1 presents the specific Illinois Tollway improvements and proposed construction schedule, while Figure 5-1 illustrates the location of these capacity improvement projects on a regional map. As noted above, the revenue estimates provided in this chapter assume that the EOWA is not constructed. As such, this project is not included in the list of planned Tollway construction projects. CDM Smith has made assumptions of the construction-related impacts of these major projects on the forecasted traffic and revenue on the Illinois Tollway system through post-model adjustments. Table 5-1 presents the years (in screened boxes) in which these adjustments have been made. A summary description of major capital projects by Tollway facility is provided below.

• Jane Addams Memorial Tollway (I-90): The 61.5-mile stretch of the Jane Addams Memorial Tollway from I-39 in Rockford (Winnebago County) to the Kennedy Expressway in Cook County will be reconstructed and widened in two phases. The first phase, between I-39 and IL-25 (38.9 miles), will be completed by 2015, followed by the section from IL-25 to the Kennedy Expressway (22.3 miles) in 2017. The improvements will widen the eastern 25.0 miles from six to eight lanes and the western 36.5 miles from four to six lanes.



- **Tri-State Tollway (I-94/I-294/I-80):** By the end of 2012, the Tri-State Tollway has been widened to predominantly accommodate eight lanes for most of the length of the facility. The most significant planned projects for the Tri-State Tollway include the construction of a new system interchange at I-57 and a new interchange on I-294 at 147th Street, located one-half mile north of I-57. The Illinois Tollway has also scheduled reconstruction of the 50-year-old pavement in sections from 95th Street to Balmoral Avenue and Edens Spur.
- Veterans Memorial Tollway (I-355): The Illinois Tollway has planned for mill, patch, and overlay on several sections of the Veterans Memorial Tollway, including the 17.5 miles stretch between I-55 and Army Trail Road, and on the collector-distributor roads. The restoration of the Veterans Memorial Tollway will improve the ride quality, traffic flow, and upgrade the Veterans Memorial Tollway to the latest standards and operational requirements.
- Reagan Memorial Tollway (I-88): The Illinois Tollway has planned reconstructions along several sections of the Reagan Memorial Tollway, including York Road to I-290 and the East-West Connector (I-294 and I-88). In addition, the sections between Aurora Toll Plaza to IL Route 59 and IL Route 251 to IL Route 56 will be undergoing mill, patch and overlay work before the year 2019. In 2012, a 38-mile section between Illinois Route 251 in Rochelle and Illinois Route 56 in North Aurora was resurfaced. Also, the one-mile section between Illinois Route 56 and Deerpath Road was reconstructed and widened. The 32-mile section between US-30 in Rock Falls and Illinois Route 251 in Rochelle will be resurfaced in 2016.
- **Elgin-O'Hare Western Access:** The Elgin-O'Hare Western Access (EOWA) is the most significant system expansion project listed in the *Move Illinois* capital program. This 16-mile roadway is to be situated immediately west of O'Hare International Airport. The project constitutes rehabilitating and widening the existing four lanes of the Elgin-O'Hare Expressway between Irving Park Road and I-290, while constructing a new controlled access tollway east of I-290. The portion east of I-290 will be constructed in phases, with segments opening between 2017 and 2026. As the facility is expected to have an impact on future Tollway traffic and toll revenues, further details on the EOWA, its phasing, and the impact of this project on the Illinois Tollway system are discussed in Chapter 6. Traffic and revenue forecasts for EOWA are not included in this chapter.

#### **Non-Tollway Transportation Projects**

Table 5-2 below presents a list of non-Tollway projects in the Chicago area that have been identified through CMAP, Illinois Department of Transportation, and Wisconsin Department of Transportation as potential causes of transactions and toll revenue impacts on the Illinois Tollway system. Figure 5-2 illustrates these projects in the context of the larger region and refere3nces the projects listed in Table 5-2.



**Table 5-1: Planned Illinois Tollway Expansion Projects** 

	Type of		Lin	Limits		17	15	16	17	18	19	2	21	22	23	24	Ŋ	92
<b>Tollway Facility</b>	Improvement	Project Details	From	То	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Jane Addams Memorial (I-90)	Interchange construction	WB entrance ramp from IL-47, EB exit ramp to IL-47	-	-														
Tri-State (I-294)	Interchange construction	NB entrance ramp from 147th St, SB exit ramp to 147th St	-	-														
Tri-State (I-294)	Interchange construction	SB exit ramp to SB I-57, NB entrance ramp from NB I-57	-	-														
Jane Addams Memorial (I-90)	Widening	Add 1 lane in both directions	I-39	IL-25	Δ	<u> </u>												
Jane Addams Memorial (I-90)	Widening	Add 1 lane in both directions	IL-25	Kennedy Exwy (I-90)			<u> </u>	<u> </u>										
Jane Addams Memorial (I-90)	Interchange construction <sup>(1)</sup>	WB entrance ramp from Elmhurst Rd, EB exit ramp to Elmhurst Rd	-	-														
Jane Addams Memorial (I-90)	Interchange construction	WB entrance ramp from Barrington Rd, EB exit ramp to Barrington Rd	-	-														
Tri-State (I-294)	Interchange construction <sup>(1)</sup>	SB exit ramp to County Line Rd/US-20/IL-64	-	-														
Tri-State (I-294)	Interchange construction	NB and SB exit ramps to NB I-57, NB and SB entrance ramps from SB I-57	-	-														
Veterans Memorial Tollway (I- 355)	Mill, patch & overlay	Collector-distributor roads	-	-	Δ													
Veterans Memorial Tollway (I- 355)	Mill, patch & overlay	Second rehabilitation of the original 17.5 miles pavement	I-55	Army Traill Road						<u> </u>	Δ							
Reagan Memorial Tollway (I-88)	Mill, patch & overlay	Rehabilitate existing 5.5 miles pavement	Aurora Plaza	IL-59						<u> </u>	Δ							
Reagan Memorial Tollway (I-88)	Reconstruction	Existing four and six lane sections of 1.5 miles pavement	York Rd	1-290						<u> </u>	Δ							
Tri-State (I-294)	Reconstruction	Rehabilitate existing 5.5 miles pavement	95th St	Balmoral Ave								<u> </u>	<u> </u>					
Tri-State (I-94)	Reconstruction	Reconstruct entire 5.4-Mile Edens Spur	-	-									_					

<sup>(1)</sup> Funding for the new Elmhurst Rd and County Line Rd/US-20/IL-64 ramps is tied to the Elgin-O'Hare project. However, these ramps will be constructed as part of corridor construction on I-90 and I-294 and are therefore included in both scenarios of T&R forecast (with and without the Elgin-O'Hare project).

Construction
Phase

Opening Year



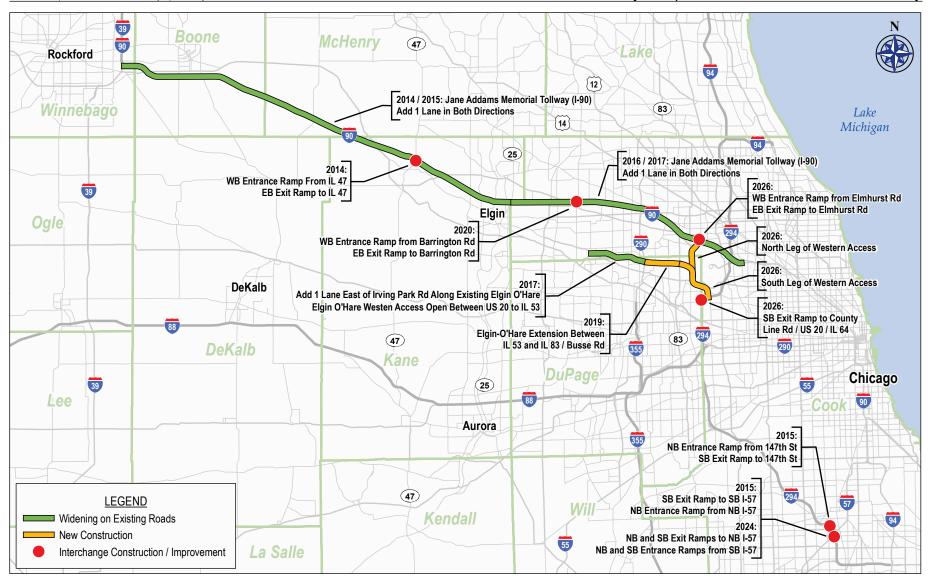
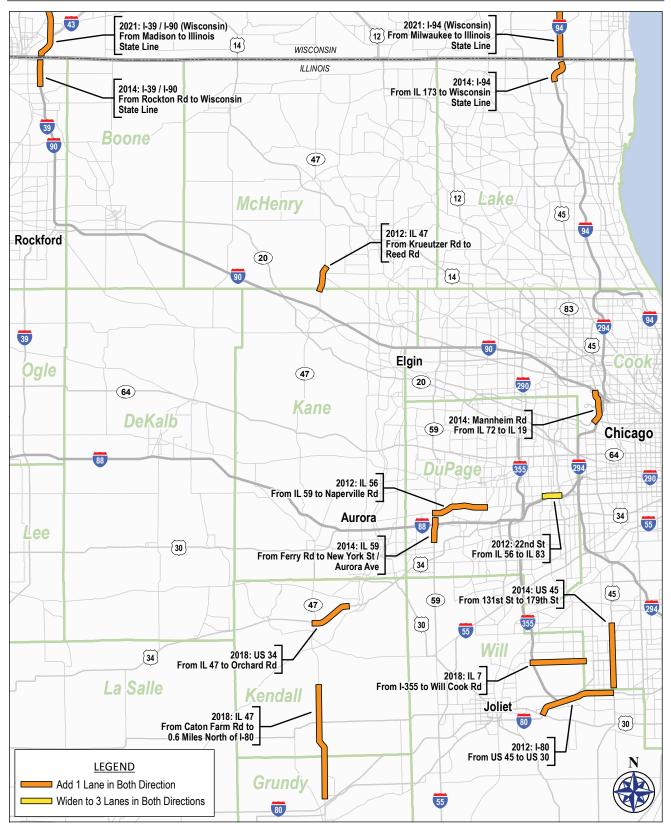




 Table 5-2: Significant Non-Tollway Capacity Improvement Projects

		Li	imits	Opening	2	m	4	5	9	7	<b>∞</b>	<u>و</u>	0	Ħ.	2	m	4	τύ	9
	Facility	From	То	Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
1.	I-80	US-45	US-30	2012															
2.	IL-56	IL-59	Naperville Rd	2012															
3.	22nd St	IL-56	IL-83	2012															
4.	IL-47	Kreutzer Rd	Reed Rd	2012															
5.	US-45	131st St	179th St	2014															
6.	Mannheim Rd	IL-72	IL-19	2014															
7.	IL-59	Ferry Rd	New York St/Aurora A	2014															
8.	I-94	IL-173	Wisconsin State line	2014															
9.	I-90/I-39	Rockton Rd	Wisconsin State line	2014															
10.	IL-7	I-355	Will-Cook Rd	2018															
11.	US-34	IL-47	Orchard Rd	2018															
12.	IL-47	Canton farm Road	0.6 miles north of I-80	2018															
13.	I-94 (Wisconsin)	Milwaukee	Illinois State line	2021															
14.	I-39/I-90 (Wisconsin)	Madison	Illinois State line	2021															





**OFF-TOLLWAY CAPACITY IMPROVEMENT PROJECTS** 

#### **Toll Rate Schedule**

This section describes the toll rates assumed on the Illinois Tollway in each model year by vehicle rate tier. Passenger car (PC) toll rates and commercial vehicle (CV) toll rates are discussed separately.

#### **Passenger Car Toll Rates**

PC toll rates increased 88 percent on January 1, 2012 for both cash and I-PASS customers. No further toll rate increases for passenger cars are currently planned. Therefore, the toll rates are identical in all model years from 2012 through 2040. Sample toll rates are shown in Chapter 1 on Table 1-3, and a full toll rate schedule is provided in Appendix A. Illustrated by the full toll rate schedule, mainline and ramp plaza rates vary significantly. The toll rates at plazas vary for two reasons: (1) plaza toll rates are set to a target per-mile toll rate. Therefore, toll rates at a particular plaza may vary depending on the number of miles of roadway for which the plaza is collecting tolls; or (2) some sections of the Tollway, including all of the Veterans Memorial Tollway (I-355), have higher per-mile toll rates.

#### **Commercial Vehicle Toll Rates**

CV toll rates are scheduled to incrementally increase a total of 60 percent between 2015 and 2017. Thereafter, CV toll rates will be indexed to rise at the rate of inflation. CDM Smith has assumed that inflation will remain a constant 2.0 percent per year between 2012 and 2040. Therefore, for the purposes of modeling the years beyond 2017, CV toll rates have been assumed to increase at 2.0 percent per year from 2018 through 2040. Table 1-3 in Chapter 1 identifies the current CV toll rates by rate tier at typical plazas, while Appendix A provides the rates at each plaza by year. The toll rates shown in Appendix A represent the full-price "daytime" rates, charged from 6:00 AM to 10:00 PM. With the 2005 CV toll rate increase, the Illinois Tollway began offering toll discounts to encourage CV traffic during off-peak hours. During the "overnight" period from 10:00 PM to 6:00 AM, discounted toll rates are charged according to rate tier: Rate Tier 2 receives a 33 percent discount; Rate Tier 3 receives a 22 percent discount, and Rate Tier 4 receives a 25 percent discount. The discounted rate is rounded to the nearest five cents. The overnight discount period does not match the time periods specified in the CMAP travel demand model; CV toll transactions and revenues were adjusted for in the post-processing stage to account for the discrepancy.

## Future Passenger Car I-PASS Participation Rates

On January 1, 2005, cash toll rates for passenger cars doubled, while I-PASS rates remained unchanged. Because of the substantial difference in rates between cash and I-PASS transactions, I-PASS participation rates have significant impact on toll revenues. As discussed in Chapter 2, I-PASS participation for both passenger cars and commercial vehicles increased sharply at the end of 2004, continuing into the following year. By January 2005, the I-PASS usage rates had increased to 74 percent for passenger cars and 70 percent for commercial vehicles. I-PASS participation rates continued a gradual upward trend, and by 2011 had reached 83.6 percent for passenger cars and 86.1 percent for commercial vehicles. In response to another passenger car toll rate increase in 2012, I-PASS participation rates jumped more than two percentage points. I-



PASS participation rates for the year were 86.3 percent for passenger cars and 86.4 percent commercial vehicles.

For this study, CDM Smith has assumed that the I-PASS participation rates will increase by a total of 3.4 percentage points between 2013 and 2017, increasing yearly as shown in Table 5-3. CDM Smith has also assumed that I-PASS participation rates will not exceed 95.0 percent at any plaza, regardless of the anticipated increases shown in Table 5-3. By 2017, nearly all toll plazas on I-355 (and many ramp plazas on I-88 near I-355) will reach this 95.0 percent threshold.

Only passenger cars (Rate Tier 1) have a toll rate differential between cash and I-PASS payments. For commercial vehicles (Rate Tiers 2, 3 and 4), there is no toll rate differential between cash and I-PASS regardless of time of day. Consequently, the I-PASS participation rate has no bearing on overall commercial vehicle revenues. Therefore, we have made no assumptions about future commercial vehicle I-PASS payment rates.

Years	Assumed Growth in I- PASS Participation	Systemwide I-PASS Participation
2013	1.0%	87.3%
2014	0.9%	88.2%
2015	0.7%	88.9%
2016	0.5%	89.4%
2017 to 2040	0.3%	89.7%

Table 5-3: Passenger Car I-PASS Rates: 2013-2040

## Estimated Annual Transactions and Toll Revenue

Future year traffic assignments were developed using the modeling approach detailed in Chapter 4, and in accordance with the assumptions listed earlier in this chapter. The model runs were performed for the following years: 2012-2020, 2022-2026, 2030, and 2040. The average weekday traffic and revenue forecasts produced by the toll diversion model were converted to annual values using the annualization procedure described in Chapter 4.

Table 5-4 through Table 5-8 show estimated annual toll transactions and revenue for each Illinois Tollway facility between 2011 and 2040. Each table provides transactions and revenue by passenger cars and commercial vehicles separately, as well as the total transactions and revenue. For years in which traffic assignments were not produced using the model, estimates were interpolated between the two nearest traffic assignment years. The estimates shown in the following tables exclude the proposed Elgin-O'Hare/Western Access. Transactions and revenue are shown as annual totals, in thousands.

## **Analysis of Transactions and Revenue by Facility**

On a system wide basis, annual toll transactions are expected to increase from approximately 819 million in 2013, to more than 1,203 million in 2040. Over the 28-year forecast period, annual



transactions are estimated to increase 47 percent system wide, representing an average annual rate of growth of 1.44 percent per year.

Expected toll revenue is estimated to be \$990 million for 2013. For the existing system, this is estimated to grow to \$2,241 million by 2040, at an average annual growth rate of 3.07 percent per year.

Figure 5-3 illustrates historical annual transactions and revenue on the Illinois Tollway from 1959 through 2011, as well as the forecasts from 2012 through 2040. The graph shows a sharp increase in revenues between 2011 and 2012 due to the 88% increase in passenger car toll rates (for both cash and I-PASS payments). Revenues continue to rise sharply in the 2014 to 2017 period due to: (1) a series of CV toll rate increases in 2015 through 2017, and (2) the completion of the widening of I-90 in 2017.

Figure 5-4 shows historical and forecast annual transactions and revenues by passenger car (PC) and commercial vehicles (CV). The graph illustrates the increasing importance of CV revenues. By 2028, forecasted CV revenues are expected to exceed PC revenues. With regard to the planned continual increases in CV toll rates, two recent toll rate increases—(1) the 2005 CV rate increase, and (2) the 2012 PC rate increase—both demonstrated that users have a low sensitivity to toll rate increases. The year-over-year declines in transactions following these toll rate increases were minor and short-lived. Due to the annual inflation adjustments in CV toll rates after 2017, CV revenues are expected to increase more rapidly than PC revenues. This study assumed CV toll rates would be adjusted 2.0 percent per year. One risk to the CV revenue forecast is if annual rate adjustments fall significantly below the assumed annual rate adjustment threshold of 2.0 percent.



Table 5-4: 2011-2040 Jane Addams Memorial Tollway (I-90) Transactions and Revenue (in thousands, revenue shown in nominal \$)

		Transactions			Revenue	
Year	Passenger Car	Commercial Vehicle	Total Transactions	Passenger Car	Commercial Vehicle	Total Revenue
2011	152,736	18,494	171,230	\$68,424	\$65,085	\$133,509
2012 <sup>(1)</sup>	147,486	19,476	166,962	\$119,904	\$67,895	\$187,798
2013	147,617	19,504	167,121	\$126,558	\$72,269	\$198,827
2014	158,549	20,639	179,189	\$128,771	\$74,346	\$203,117
<b>2015</b> <sup>(2)</sup>	158,611	20,486	179,097	\$129,712	\$104,708	\$234,420
<b>2016<sup>(3)</sup></b>	164,054	21,034	185,088	\$134,130	\$114,887	\$249,017
2017 <sup>(4)</sup>	194,190	23,646	217,836	\$155,996	\$136,497	\$292,493
<b>2018</b> <sup>(5)</sup>	202,783	24,510	227,292	\$162,588	\$144,188	\$306,777
2019	208,291	25,169	233,460	\$167,674	\$151,132	\$318,807
2020	224,826	26,466	251,292	\$177,396	\$160,796	\$338,192
2021	230,220	27,138	257,358	\$181,554	\$167,978	\$349,532
2022	235,879	27,838	263,717	\$185,888	\$175,314	\$361,203
2023	241,152	28,581	269,733	\$190,813	\$184,131	\$374,945
2024	246,565	29,361	275,925	\$195,035	\$193,082	\$388,117
2025	250,416	30,153	280,569	\$198,194	\$201,492	\$399,685
2026	252,691	30,291	282,982	\$200,235	\$209,739	\$409,974
2027	257,114	30,892	288,006	\$203,559	\$218,084	\$421,643
2028	261,282	31,453	292,734	\$206,619	\$226,036	\$432,655
2029	264,462	31,897	296,359	\$208,906	\$233,402	\$442,308
2030	267,232	32,289	299,521	\$210,795	\$240,486	\$451,280
2031	269,431	32,657	302,088	\$212,369	\$247,567	\$459,935
2032	271,533	33,027	304,560	\$213,755	\$254,743	\$468,498
2033	272,965	33,313	306,278	\$214,628	\$261,749	\$476,376
2034	274,937	33,663	308,600	\$215,906	\$268,736	\$484,642
2035	276,316	34,102	310,417	\$216,673	\$277,739	\$494,412
2036	278,860	34,525	313,385	\$218,371	\$285,896	\$504,267
2037	279,903	34,765	314,669	\$218,887	\$292,891	\$511,778
2038	281,731	35,105	316,836	\$220,011	\$301,217	\$521,228
2039	283,583	35,450	319,033	\$221,146	\$309,267	\$530,413
2040	285,967	35,692	321,659	\$222,663	\$317,543	\$540,206



 $<sup>^{(1)}</sup>$  2012 toll revenues are unaudited and preliminary. Also, numbers may not add to totals due to rounding.

 $<sup>^{\</sup>mbox{\scriptsize (2)}}$  In 2015, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 40 percent.

 $<sup>^{(3)}</sup>$  In 2016, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 7.14 percent (cumulative increase of 50 percent).

<sup>(4)</sup> In 2017, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 6.67 percent (cumulative increase of 60 percent). Also in 2017, I-90 widening (from Kennedy Expressway to Interstate 39) is completed.

<sup>(5)</sup> Following the 2017 rate adjustment, CV rates in all subsequent years are linked to inflation. CDM Smith assumed an inflationary rate of 2.0 percent per annum.

Table 5-5: 2011-2040 Tri-State Tollway (I-94/I-294) Transactions and Revenue (in thousands, revenue shown in nominal \$)

		Transactions	:		Revenue	
	Passenger	Commercial	Total	Passenger	Commercial	
Year	Car	Vehicle	Transactions	Car	Vehicle	Total Revenue
2011	308,635	49,087	357,722	\$144,278	\$153,114	\$297,392
2012 <sup>(1)</sup>	294,935	49,396	344,330	\$249,908	\$154,630	\$404,538
2013	302,383	51,598	353,981	\$267,409	\$172,997	\$440,406
2014	312,022	53,330	365,352	\$273,990	\$178,531	\$452,521
2015 <sup>(2)</sup>	323,560	53,003	376,563	\$282,134	\$247,726	\$529,860
2016 <sup>(3)</sup>	332,541	54,115	386,656	\$288,963	\$271,073	\$560,036
2017 <sup>(4)</sup>	337,863	55,601	393,464	\$293,103	\$296,876	\$589,978
2018 <sup>(5)</sup>	344,538	57,037	401,575	\$299,085	\$311,079	\$610,164
2019	349,389	58,193	407,582	\$304,060	\$323,547	\$627,607
2020	354,555	59,630	414,185	\$308,895	\$338,885	\$647,780
2021	356,178	60,692	416,870	\$309,978	\$351,881	\$661,859
2022	348,685	59,496	408,180	\$304,855	\$352,232	\$657,088
2023	370,907	63,608	434,515	\$322,110	\$381,740	\$703,851
2024	379,080	64,845	443,926	\$329,369	\$397,620	\$726,990
2025	381,649	65,909	447,558	\$332,237	\$411,752	\$743,989
2026	379,181	66,271	445,452	\$334,305	\$425,981	\$760,285
2027	382,388	67,189	449,577	\$337,374	\$440,636	\$778,010
2028	385,323	68,011	453,334	\$340,170	\$454,558	\$794,728
2029	387,223	68,628	455,851	\$342,009	\$467,443	\$809,452
2030	388,640	69,154	457,794	\$343,383	\$480,819	\$824,202
2031	389,943	69,692	459,635	\$344,609	\$494,008	\$838,618
2032	391,665	70,238	461,903	\$346,176	\$506,966	\$853,142
2033	392,265	70,658	462,922	\$346,781	\$520,719	\$867,500
2034	393,568	71,207	464,775	\$348,008	\$533,846	\$881,854
2035	394,108	71,780	465,888	\$348,537	\$550,057	\$898,594
2036	396,118	72,468	468,585	\$350,391	\$565,332	\$915,723
2037	395,967	72,764	468,732	\$350,335	\$578,972	\$929,306
2038	396,904	73,264	470,168	\$351,240	\$594,683	\$945,923
2039	397,845	73,768	471,613	\$352,149	\$609,670	\$961,819
2040	400,158	74,235	474,393	\$354,199	\$626,177	\$980,377



 $<sup>^{(1)}</sup>$  2012 toll revenues are unaudited and preliminary. Also, numbers may not add to totals due to rounding.

 $<sup>^{(2)}</sup>$  In 2015, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 40 percent.

<sup>(3)</sup> In 2016, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 7.14 percent (cumulative increase of 50 percent).

<sup>(4)</sup> In 2017, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 6.67 percent (cumulative increase of 60 percent). Also in 2017, I-90 widening (from Kennedy Expressway to Interstate 39) is completed.

<sup>(5)</sup> Following the 2017 rate adjustment, CV rates in all subsequent years are linked to inflation. CDM Smith assumed an inflationary rate of 2.0 percent per annum.

Table 5-6: 2011-2040 Reagan Memorial Tollway (I-88) Transactions and Revenue (in thousands, revenue shown in nominal \$)

		Transactions			Revenue	
	Passenger	Commercial	Total	Passenger	Commercial	Total
Year	Car	Vehicle	Transactions	Car	Vehicle	Revenue
2011	131,518	11,248	142,766	\$60,165	\$46,292	\$106,458
2012 <sup>(1)</sup>	125,390	11,303	136,693	\$103,173	\$45,089	\$148,262
2013	128,839	11,599	140,438	\$112,235	\$49,160	\$161,396
2014	132,505	12,080	144,585	\$114,590	\$51,597	\$166,187
2015 <sup>(2)</sup>	136,007	11,966	147,973	\$116,921	\$71,459	\$188,380
2016 <sup>(3)</sup>	139,956	12,363	152,319	\$119,751	\$78,980	\$198,731
2017 <sup>(4)</sup>	142,807	12,750	155,557	\$121,898	\$86,928	\$208,826
2018 <sup>(5)</sup>	142,416	12,980	155,396	\$121,646	\$90,856	\$212,502
2019	145,225	13,403	158,628	\$124,105	\$95,583	\$219,688
2020	150,045	14,114	164,160	\$128,084	\$102,172	\$230,255
2021	150,386	14,533	164,919	\$128,279	\$107,266	\$235,545
2022	150,990	14,961	165,951	\$128,698	\$112,334	\$241,032
2023	152,493	15,429	167,923	\$130,140	\$118,684	\$248,824
2024	153,599	15,860	169,459	\$131,166	\$124,527	\$255,693
2025	154,297	16,197	170,494	\$131,907	\$129,831	\$261,738
2026	156,186	16,600	172,786	\$133,791	\$136,018	\$269,809
2027	157,385	16,948	174,333	\$134,846	\$141,720	\$276,567
2028	158,478	17,257	175,735	\$135,814	\$146,981	\$282,796
2029	159,181	17,493	176,674	\$136,447	\$151,867	\$288,314
2030	159,693	17,677	177,370	\$136,919	\$156,491	\$293,410
2031	160,212	17,833	178,045	\$137,333	\$160,966	\$298,299
2032	160,869	17,986	178,855	\$137,872	\$165,387	\$303,259
2033	161,104	18,095	179,199	\$138,040	\$169,799	\$307,840
2034	161,622	18,238	179,860	\$138,452	\$174,275	\$312,727
2035	161,843	18,427	180,270	\$138,614	\$180,014	\$318,628
2036	162,648	18,606	181,254	\$139,269	\$185,078	\$324,347
2037	162,565	18,685	181,250	\$139,164	\$189,549	\$328,713
2038	162,929	18,817	181,746	\$139,440	\$194,681	\$334,121
2039	163,294	18,951	182,245	\$139,716	\$199,714	\$339,430
2040	164,244	19,057	183,301	\$140,505	\$204,914	\$345,419



 $<sup>^{(1)}</sup>$  2012 toll revenues are unaudited and preliminary. Also, numbers may not add to totals due to rounding.

 $<sup>^{\</sup>rm (2)}$  In 2015, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 40 percent.

<sup>(3)</sup> In 2016, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 7.14 percent (cumulative increase of 50 percent).

<sup>(4)</sup> In 2017, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 6.67 percent (cumulative increase of 60 percent). Also in 2017, I-90 widening (from Kennedy Expressway to Interstate 39) is completed.

<sup>(5)</sup> Following the 2017 rate adjustment, CV rates in all subsequent years are linked to inflation. CDM Smith assumed an inflationary rate of 2.0 percent per annum.

Table 5-7: 2011-2040 Veterans Memorial Tollway (I-355) Transactions and Revenue (in thousands, revenue shown in nominal \$)

		Transactions			Revenue	
	Passenger	Commercial	Total	Passenger	Commercial	Total
Year	Car	Vehicle	Transactions	Car	Vehicle	Revenue
2011	150,306	10,804	161,110	\$81,319	\$33,609	\$114,928
2012 <sup>(1)</sup>	143,870	11,925	155,795	\$142,973	\$38,314	\$181,287
2013	145,660	11,398	157,058	\$151,787	\$37,935	\$189,722
2014	150,385	11,786	162,171	\$155,478	\$38,926	\$194,403
2015 <sup>(2)</sup>	155,342	11,591	166,934	\$159,614	\$53,598	\$213,212
2016 <sup>(3)</sup>	160,517	12,026	172,543	\$164,576	\$59,298	\$223,874
2017 <sup>(4)</sup>	164,628	12,449	177,076	\$168,365	\$65,330	\$233,695
2018 <sup>(5)</sup>	162,702	12,444	175,145	\$166,922	\$66,788	\$233,710
2019	165,745	12,814	178,559	\$170,061	\$70,102	\$240,163
2020	176,479	13,834	190,313	\$180,085	\$76,720	\$256,805
2021	178,328	14,265	192,593	\$182,048	\$80,608	\$262,657
2022	180,316	14,708	195,025	\$184,141	\$84,410	\$268,550
2023	184,573	15,485	200,058	\$191,230	\$91,471	\$282,701
2024	186,908	15,942	202,850	\$193,921	\$96,079	\$290,000
2025	188,117	16,447	204,564	\$195,731	\$100,765	\$296,495
2026	190,832	16,980	207,812	\$198,789	\$105,898	\$304,686
2027	192,621	17,367	209,988	\$200,861	\$110,454	\$311,315
2028	194,271	17,720	211,992	\$202,782	\$114,741	\$317,524
2029	195,422	18,005	213,427	\$204,158	\$118,684	\$322,842
2030	196,324	18,242	214,566	\$205,264	\$122,535	\$327,800
2031	197,260	18,451	215,710	\$206,382	\$126,220	\$332,602
2032	198,199	18,654	216,853	\$207,384	\$129,944	\$337,328
2033	198,741	18,800	217,541	\$208,046	\$133,532	\$341,579
2034	199,615	18,979	218,594	\$209,035	\$137,053	\$346,088
2035	200,017	19,176	219,193	\$209,476	\$141,322	\$350,798
2036	201,225	19,395	220,620	\$210,796	\$145,369	\$356,165
2037	201,337	19,510	220,847	\$210,967	\$148,935	\$359,902
2038	202,002	19,681	221,683	\$211,718	\$153,148	\$364,866
2039	202,670	19,855	222,524	\$212,471	\$157,281	\$369,752
2040	203,852	19,962	223,814	\$213,666	\$161,454	\$375,120



 $<sup>^{(1)}</sup>$  2012 toll revenues are unaudited and preliminary. Also, numbers may not add to totals due to rounding.

 $<sup>^{(2)}</sup>$  In 2015, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 40 percent.

<sup>(3)</sup> In 2016, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 7.14 percent (cumulative increase of 50 percent).

<sup>(4)</sup> In 2017, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 6.67 percent (cumulative increase of 60 percent). Also in 2017, I-90 widening (from Kennedy Expressway to Interstate 39) is completed.

<sup>(5)</sup> Following the 2017 rate adjustment, CV rates in all subsequent years are linked to inflation. CDM Smith assumed an inflationary rate of 2.0 percent per annum.

Table 5-8: 2011-2040 Total Tollway Systems Transactions and Revenue (in thousands, revenue shown in nominal \$)

		Transactions			Revenue	
Year	Passenger	Commercial	Total	Passenger	Commercial	Total
	Car	Vehicle	Transactions	Car	Vehicle	Revenue
2011	743,195	89,633	832,828	\$354,186	\$298,488	\$652,287
2012 <sup>(1)</sup>	711,680	92,100	803,780	\$615,957	\$306,433	\$922,390
2013	724,499	94,099	818,598	\$657,989	\$332,361	\$990,351
2014	753,461	97,835	851,296	\$672,828	\$343,400	\$1,016,228
2015 <sup>(2)</sup>	773,520	97,047	870,566	\$688,380	\$477,492	\$1,165,872
2016 <sup>(3)</sup>	797,068	99,538	896,606	\$707,420	\$524,238	\$1,231,659
2017 <sup>(4)</sup>	839,487	104,446	943,933	\$739,362	\$585,631	\$1,324,992
2018 <sup>(5)</sup>	852,438	106,970	959,408	\$750,241	\$612,912	\$1,363,153
2019	868,649	109,580	978,229	\$765,900	\$640,363	\$1,406,264
2020	905,905	114,045	1,019,950	\$794,460	\$678,573	\$1,473,032
2021	915,113	116,627	1,031,739	\$801,859	\$707,733	\$1,509,592
2022	915,870	117,003	1,032,874	\$803,582	\$724,290	\$1,527,872
2023	949,125	123,104	1,072,228	\$834,294	\$776,027	\$1,610,321
2024	966,151	126,009	1,092,160	\$849,491	\$811,308	\$1,660,799
2025	974,479	128,706	1,103,185	\$858,068	\$843,839	\$1,701,907
2026	978,891	130,142	1,109,033	\$867,120	\$877,635	\$1,744,755
2027	989,508	132,396	1,121,903	\$876,640	\$910,894	\$1,787,535
2028	999,354	134,441	1,133,795	\$885,387	\$942,316	\$1,827,703
2029	1,006,289	136,022	1,142,311	\$891,519	\$971,397	\$1,862,917
2030	1,011,888	137,361	1,149,249	\$896,361	\$1,000,332	\$1,896,692
2031	1,016,845	138,633	1,155,478	\$900,693	\$1,028,761	\$1,929,454
2032	1,022,265	139,905	1,162,170	\$905,187	\$1,057,040	\$1,962,227
2033	1,025,075	140,865	1,165,940	\$907,495	\$1,085,799	\$1,993,294
2034	1,029,742	142,087	1,171,829	\$911,401	\$1,113,911	\$2,025,311
2035	1,032,284	143,484	1,175,768	\$913,300	\$1,149,132	\$2,062,432
2036	1,038,850	144,994	1,183,844	\$918,828	\$1,181,674	\$2,100,502
2037	1,039,773	145,725	1,185,497	\$919,353	\$1,210,347	\$2,129,700
2038	1,043,566	146,867	1,190,433	\$922,408	\$1,243,730	\$2,166,138
2039	1,047,392	148,023	1,195,416	\$925,482	\$1,275,932	\$2,201,414
2040	1,054,221	148,946	1,203,167	\$931,033	\$1,310,088	\$2,241,121



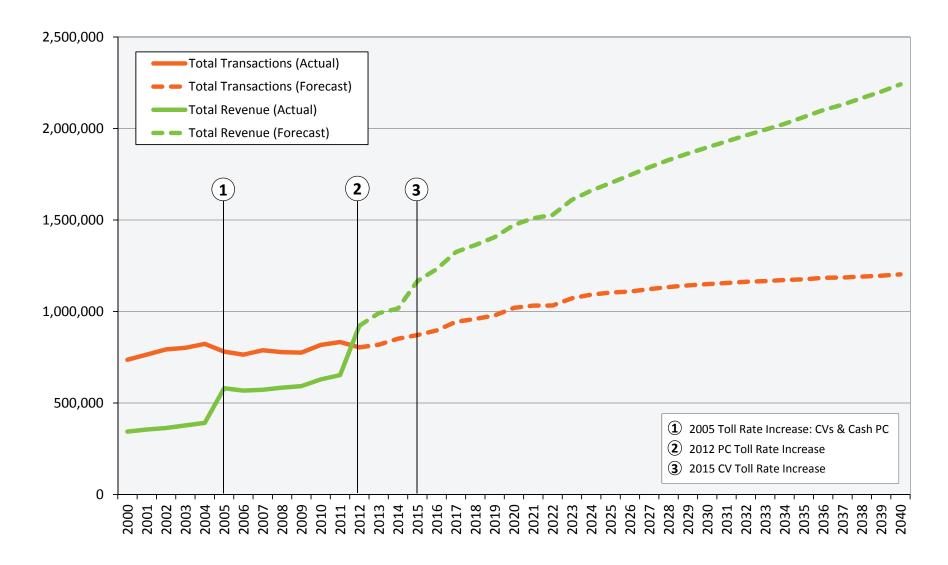
 $<sup>^{(1)}</sup>$  2012 toll revenues are unaudited and preliminary. Also, numbers may not add to totals due to rounding.

 $<sup>^{\</sup>rm (2)}$  In 2015, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 40 percent.

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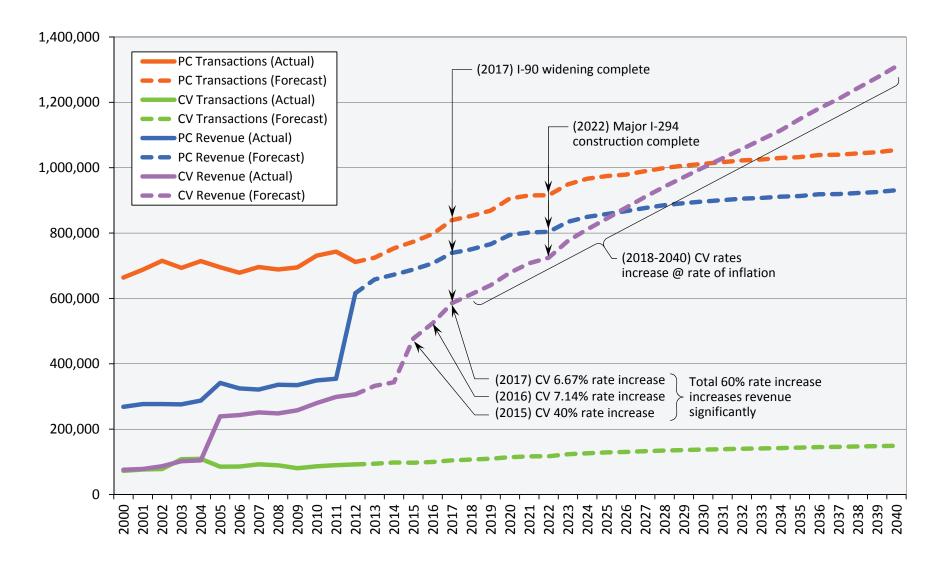
<sup>(4)</sup> In 2017, CV toll rates (Rate Tiers 2, 3 and 4) will be increased 6.67 percent (cumulative increase of 60 percent). Also in 2017, I-90 widening (from Kennedy Expressway to Interstate 39) is completed.

<sup>(5)</sup> Following the 2017 rate adjustment, CV rates in all subsequent years are linked to inflation. CDM Smith assumed an inflationary rate of 2.0 percent per annum.





ANNUAL TOTAL TRANSACTION AND REVENUE, 2000-2040 (In Thousands, Revenue Shown in Nominal Dollars)





ANNUAL TRANSACTIONS AND REVENUE BY PC AND CV, 2000-2040 (In Thousands, Revenue Shown in Nominal Dollars)

### 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 forecasts, CDM Smith has reasonably relied upon the accuracy and completeness of all of the information provided (both written and oral) by respective local and state agencies. Publicly available and obtained material has neither been independently verified, nor does CDM Smith assume responsibility for verifying such information. CDM Smith has relied upon the reasonable assurances of the independent parties that they are not aware of any facts that would deem such information misleading.

CDM Smith has made qualitative judgments related to several key variables within the analysis used to develop the traffic and revenue forecasts that must be considered as a whole. Therefore, selecting portions of any individual results without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit to partial information extracted from the report.

All estimates and projections reported herein are based on CDM Smith's experience and judgment, and on a review of independent third party projections and information obtained from multiple state and local agencies. 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 the report, such that CDM Smith does not specifically guarantee or warrant any estimate or projections contained within this report.

While CDM Smith believes that projections or other forward-looking statements contained within the report are based on reasonable assumptions as of the report date, such forward looking statements involve risks and uncertainties that may cause actual results to differ materially from the predicted results. Following the date of this report, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to socioeconomic and demographic forecasts, proposed residential or commercial land use development projects, and/or potential improvements to the regional transportation network.



# Chapter 6

# Elgin O'Hare Western Access Traffic and Revenue Estimates

This section addresses the current revenue estimates for the planned Elgin O'Hare Western Access (EOWA) facility, including descriptions of the data collection and model refinement performed, and assumptions made in support of the forecast. As the study of the EOWA is ongoing and certain critical elements of the project are still being defined, the numbers presented in this section should be considered preliminary in nature. Additional data collection efforts, surveys, and model development and refinement will continue in 2013.

## **Project Location and Description**

The EOWA project is a 15.6-mile roadway that will be located in the Chicago metropolitan area, immediately west of O'Hare International Airport. Figure 6-1 depicts the project location in the context of the Chicago region.

The project will be constructed in four phases, as shown in Figure 6-2, between 2013 and 2026. The estimated cost of the project is \$3.4 billion and it is financed by the Illinois Tollway as part of the \$12 billion "Move Illinois: The Illinois Tollway Driving the Future" Capital Program. The current completion years for each segment of the EOWA are shown in Table 6-1.

Table 6-1: Elgin O'Hare Western Access Segment Completion Years

Year	Route	Segment	Length
2017	Elgin-O'Hare	Irving Park Road (IL 19) to ramps to/from I-290 Reconstruction and Widening of Existing Segment	4.5
2019	Elgin-O'Hare	I-290 to IL Route 83	3.7
2026	Elgin-O'Hare	IL Route 83 to Western Access	1.1
2026	Western Access (south)	Elgin-O'Hare to Tri-State Tollway (I-294)	3.3
2026	Western Access (north)	Elgin-O'Hare to Jane Addams Memorial Tollway (I-90)	3.0

The westernmost 4.5-mile section of the Elgin O'Hare Expressway, between Irving Park Road and Rohlwing Road, was opened in 1993.<sup>(1)</sup> This four-lane section is currently owned and maintained by the Illinois Department of Transportation, and operated as a toll-free facility. Under the current plan, ownership and maintenance responsibility of this section will be transferred to the

<sup>(1)</sup> The overall length of the Elgin-O'Hare Expressway is six miles. However, the Illinois Department of Transportation will retain jurisdiction of the western 1.4 miles of the route between Irving Park Road and Lake Street (U.S. 20) in Hanover Park. Therefore, the net distance of the existing alignment that the Illinois Tollway would operate and maintain is 4.4 miles.



6-1

Illinois Tollway. This section will then be widened and reconstructed as a six-lane toll facility. The new-alignment portions of the EOWA will also be operated as toll facilities, and owned/maintained by the Tollway.

The access-controlled highway portion of the EOWA project is composed of two elements: the east-west component known as the Elgin O'Hare corridor, and the north-south component known as the Western Access corridor. The Elgin O'Hare corridor is approximately 10.0 miles, spanning from Irving Park Road (IL 19) on the west, to the western edge of O'Hare Airport to the east. The Western Access corridor will extend from I-90 on the north (near the Elmhurst Road interchange), to I-294 on the south, approximately 6.2 miles.

The EOWA project consists of several complimentary projects in addition to the fully access-controlled mainline EOWA highway, including: transit improvements; pedestrian and bicycle elements; improvements to arterial roads with connections to the EOWA; auxiliary lanes on I-90, I-294, and I-290; and improvements to existing interchanges on I-90, I-290, and I-294. Improvements to the arterial roads have been included in the travel demand model (as these improvements affect the travel demand on the EOWA), whereas the transit/pedestrian/bicycle improvements have not been added to the assignment portion of the model.

The EOWA will contain 13 service interchanges and four system interchanges. Among the service interchanges, the Elgin O'Hare corridor will feature nine interchanges (four partial and five full interchanges). The Western Access will include two partial interchanges and two full interchanges. The four system interchanges on the EOWA are as follows:

- Elgin O'Hare at I-290
- Elgin O'Hare at the Western Access
- Western Access at I-90 (Jane Addams Memorial Tollway)
- Western Access at I-294 (Tri-State Tollway)

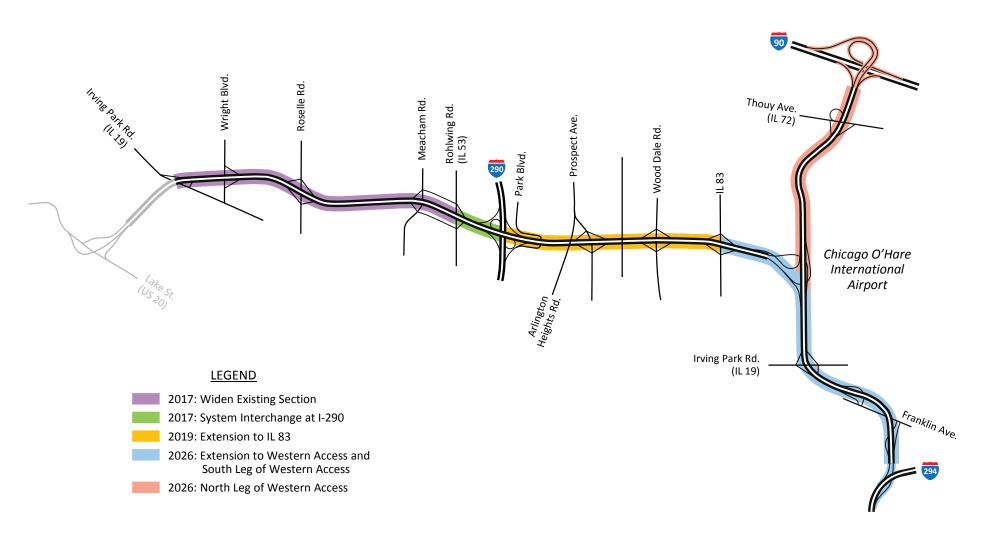
In addition to interchanges and the aforementioned improvements to arterial roads with connections to the EOWA, the project will include a system of frontage roads to allow efficient access between the EOWA and the principal arterial network.

As part of the traffic and revenue forecasting process for the Illinois Tollway, CDM Smith performed preliminary analyses of traffic and revenue potential for the EOWA project. This chapter provides estimates of traffic and revenue that could be generated on the EOWA as a stand-alone project, as well as the traffic and revenue generated in conjunction with the rest of the Illinois Tollway system. The chapter also provides estimated revenue impacts on the existing Illinois Tollway system due to limited traffic diversion away from the existing routes and toward the EOWA.











ELGIN O'HARE WESTERN ACCESS INTERCHANGES AND CONSTRUCTION PHASING

## **Project History and Description**

The Elgin O'Hare corridor was first proposed as a highway facility in 1967. In 2005, \$140 million of funding was provided for the project as part of the federal surface transportation spending bill known as "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users" (SAFETEA-LU). Work on the project's Environmental Impact Statement (EIS) started shortly thereafter.

#### **Environmental Impact Statement**

SAFETEA-LU identified the EOWA as a project of national and regional significance. As such, the project requires a more extensive two-tiered Environmental Impact Statement (EIS) process. The Tier One EIS study focused on the transportation needs and evaluation of transportation system alternatives at a broad system planning level, and considered the environmental and human impacts of the alternatives. At the end of Tier One, a preferred alternative was selected and a Record of Decision (ROD) issued in June 2010. The Tier Two EIS focuses on the detailed engineering and environmental studies of the Tier One preferred Alternative. To date, a Tier Two EIS and a Combined Design Report have been completed and a ROD has been issued.

## Purpose and Need

The EIS identified four purposes and needs that should be accomplished by the EOWA project:

- Improve regional and local travel by reducing congestion
- Improve travel efficiency
- Improve access to O'Hare Airport from the west
- Improve modal opportunities and connections (i.e., rail/bus transit and bicycles)

The highway and principal arterial system within the study area around the EOWA is highly congested. The EIS noted that during the PM Peak, 79 percent of the principal arterials and 88 percent of the freeways in the EOWA study area are congested. Consequently, the area also has high travel times simply to reach interstate connections. The EIS also noted that as the freeways and principal arterials become more congested, traffic is more likely to shift onto minor arterials, and even collector-level roads, further exacerbating congestion in the region.

## **Data Collection**

CDM Smith gathered three sets of data related to the EOWA project for travel demand model calibration: (1) existing traffic volumes; (2) travel time surveys; and (3) additional travel time estimates using publicly-available traffic data sources. The travel demand model was calibrated until the model outputs closely matched the existing traffic volumes and travel times. The data was also used to ensure that traffic volume growth rates estimated by the travel demand model were reasonable. In other words, to ensure that the difference between the existing traffic volumes and future estimated volumes imputes to reasonable growth rates.



#### **Existing Traffic Volumes**

Existing roadway traffic volumes provide some basis for the estimated traffic and revenues when the facility is completed and operating as a toll facility. The western portion of the Elgin O'Hare Expressway is already open to traffic, while the eastern extension follows the alignment of the present-day Thorndale Avenue, and the Western Access generally parallels the existing York/Elmhurst Road. Therefore, extensive traffic volume data was collected for all three of these roadways. Traffic volume data was also collected for all of the EOWA's major competing routes. A selection of the collected data is summarized on the map in Figure 6-3.

#### **Travel Time Surveys**

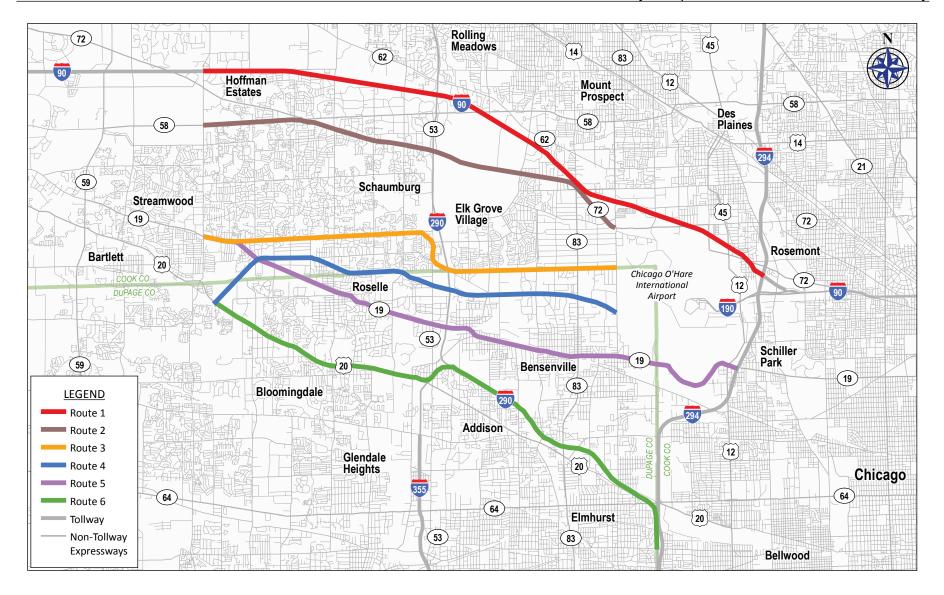
Travel time surveys were performed along the Elgin O'Hare/Thorndale Avenue corridor and other routes that could serve as alternatives to the future Elgin O'Hare and Western Access. To capture the travel speeds and travel time data, probe vehicles were outfitted with GPS devices to record the vehicle's speed and position to ensure that modeled travel times accurately represented actual conditions. Table 6-2 lists the survey dates and routes along which data was collected. These routes are illustrated in Figure 6-4 and Figure 6-5. CDM Smith collected travel time and travel speed data during both the morning and evening peak periods. The morning was assumed to peak between 7:00 and 9:00 AM, and the evening peak between 4:30 and 6:30 PM.

Table 6-2: Travel Time Survey Dates and Route Descriptions

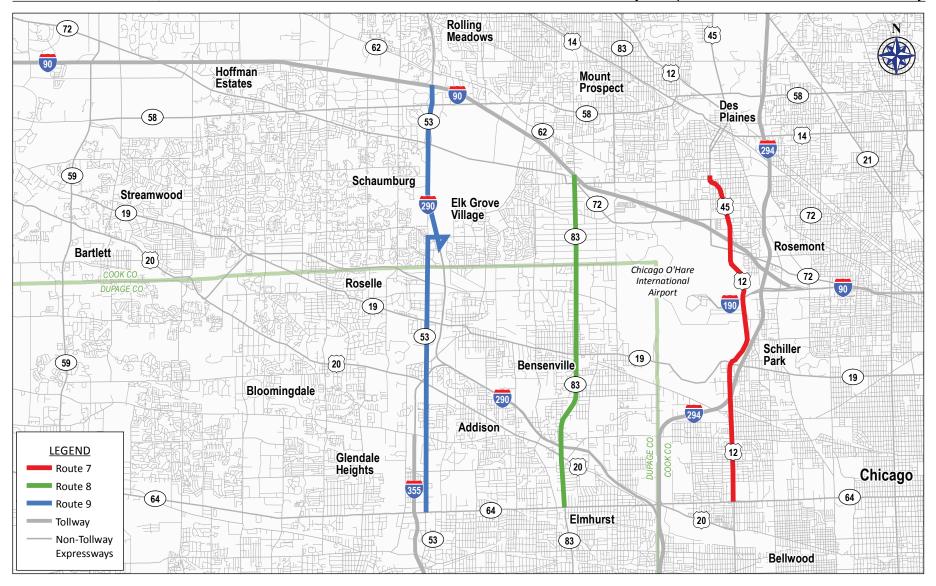
<b>Route Direction</b>	Survey Dates	Route No.	Route Descriptions	
East-West	Jan 18-19, 2012	1	I-90 between Barrington Rd and I-294	
East-West	May 22-23, 2012	2	IL-58/Golf Rd and IL-72/Higgins Rd between Barrington Rd and Elmhurst Rd	
		3	IL-19/Irving Park Rd, Wise Rd, Biesterfield Rd, Rohlwing Rd, and Devon Ave between Barrington Rd and York Rd	
		4	Elgin-O'Hare Expressway and Thorndale Ave between US-20/Lake St and York Rd	
		5	IL-19/Irving Park Rd between Barrington Rd and I- 294	
		6	US-20/Lake St and I-290 between Elgin O'Hare Expressway and St Charles Rd	
North-South	October 19-21 and 26-28, 2011	7	US-12/US-45/US-21 from Oakton St to IL-64/North Ave	
		8	IL-83 from Oakton St to IL-64/North Ave	
		9	IL-53 from I-90 to IL-64/North Ave	













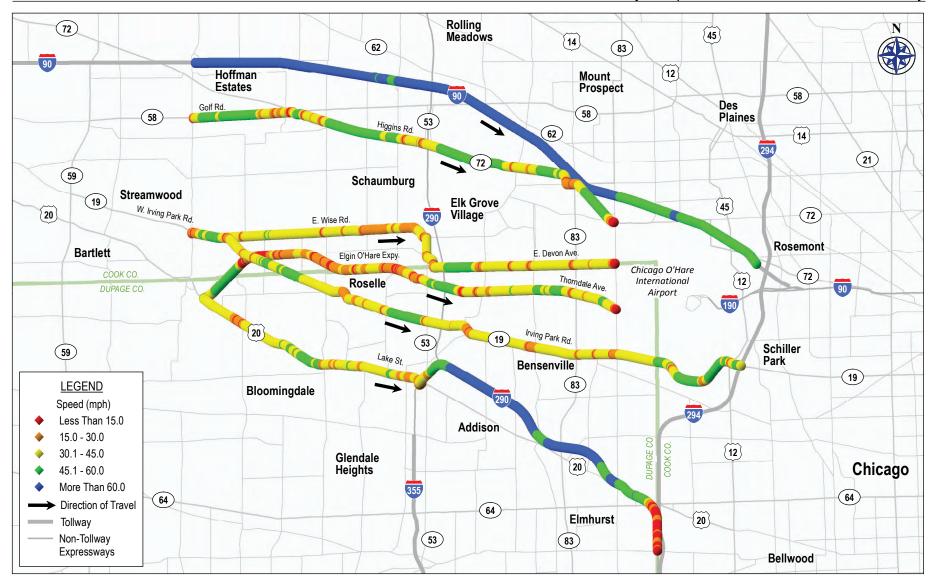
## **Findings**

Table 6-3 identifies the average travel times along the nine routes from a total of 95 directional speed surveys. Representative travel time surveys were selected for each route, direction, and peak period, shown in Figure 6-6 through Figure 6-13. The directions inbound and outbound are included in the titles of the figures relative to downtown Chicago. These figures identified the worst congestion to exist generally in the eastbound direction during the morning peak and in the southbound and westbound directions during the afternoon peak. On Route 4 (which includes the existing section of the Elgin O'Hare Expressway and Thorndale Avenue, which will become the Elgin O'Hare Extension) the average observed speed drops to 25 miles per hour (mph) in the eastbound direction during the morning peak and 31 mph in the westbound direction during the afternoon peak. The 55 mph speed limit of the Elgin O'Hare project would provide significant improvement over these current average peak speeds. I-90 currently provides the best alternative to this route. During the morning peak, traffic is free-flowing in both directions. It continues to free-flow in the eastbound direction and drops to only 45 mph (on average) in the westbound direction during the afternoon peak. The Southern Access of the Elgin O'Hare project may help to relieve the heavy congestion on I-290, as it runs parallel to I-294 (Tri-State Tollway).

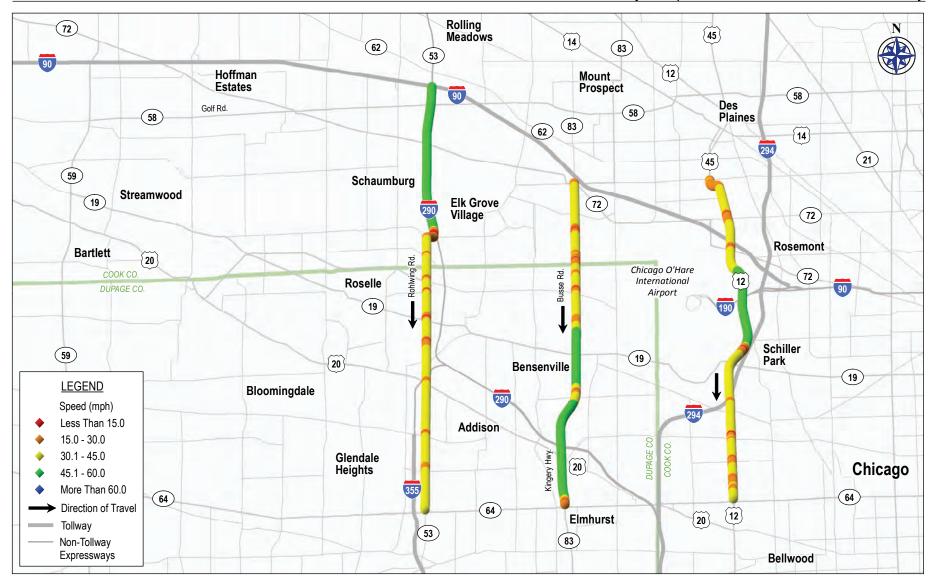
Table 6-3: Average Travel Times and Speeds for the Speed Surveys

			AM Peak (7:00-9:00 AM)		PM Peak (4:30-6:30 PM)	
Route	Direction	Distance (mi)	Travel Time (min)	Average Speed (mph)	Travel Time (min)	Average Speed (mph)
1	EB	15.0	14.9	61	14.9	60
	WB	14.9	13.4	67	19.9	45
2	EB	11.3	22.4	30	26.1	26
	WB	11.3	31.0	23	31.4	22
3	EB	11.3	27.1	25	26.6	25
	WB	11.3	23.4	29	28.5	24
4	EB	10.9	26.1	25	15.1	44
	WB	10.9	16.9	39	21.5	31
5	EB	14.7	30.7	29	32.2	27
	WB	14.7	32.4	27	30.7	29
6	EB	14.5	25.1	35	38.6	23
	WB	14.3	19.4	44	22.5	39
7	NB	8.5	16.6	31	20.4	25
	SB	8.5	17.6	29	23.2	22
8	NB	8.1	12.4	40	14.8	33
	SB	8.1	14.3	34	19.9	24
9	NB	11.4	27.1	25	28.0	25
	SB	10.8	25.8	25	25.8	25

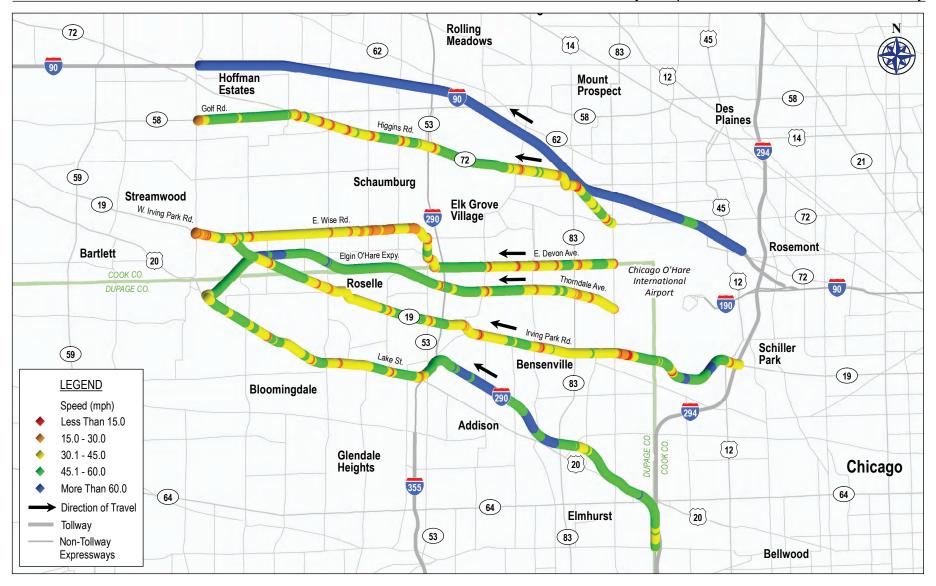








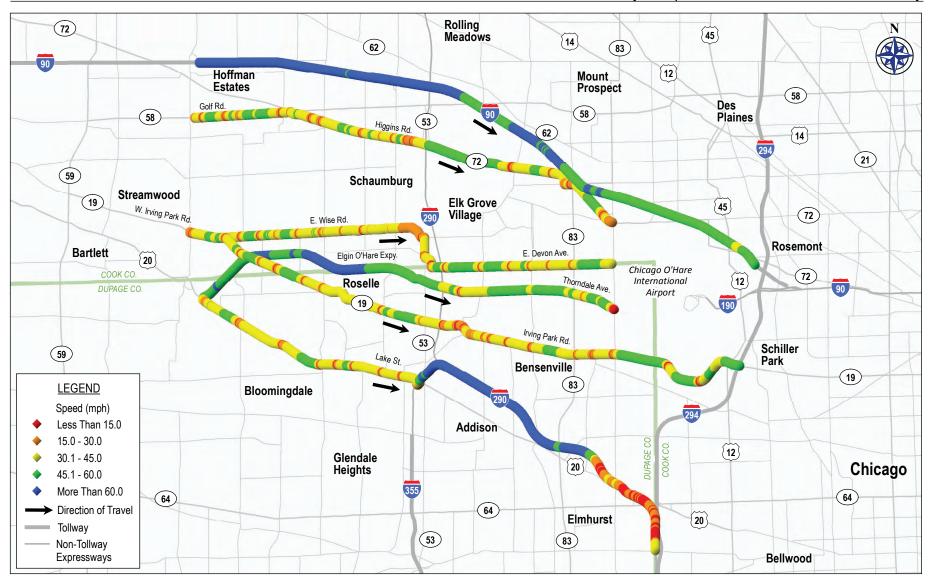




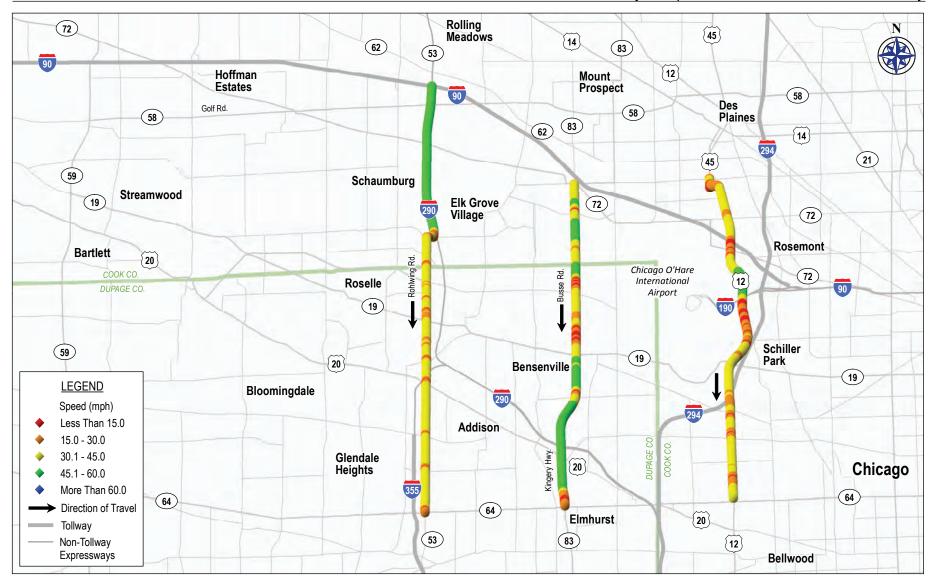




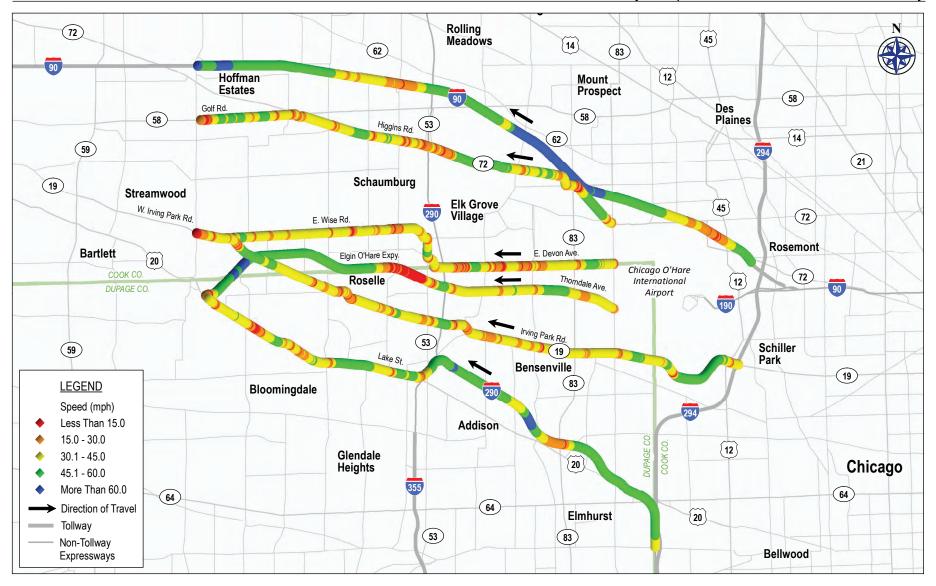














AFTERNOON PEAK OUTBOUND SPOT TRAVEL SPEEDS FOR EAST-WEST ROUTES





## Traffic Modeling and Analysis Methodology

The traffic modeling methodology utilized to estimate revenues on the EOWA is identical to that used for the existing Illinois Tollway system (as described in Chapters 4 and 5). The primary difference is that the EOWA alignment has been added to the CMAP model according to the planned opening years of the segments as shown in Figure 6-2. The basic and toll rate assumptions are provided first, followed by the annualization procedure, and the annual toll revenue estimates.

## **Basic Assumptions**

The revenue estimates for the Elgin O'Hare Western Access project are consistent with the basic assumptions presented in Chapter 5 for the system wide Illinois Tollway transactions and revenue estimates. Additional assumptions are listed as follows:

- 1. EOWA segments are opened in the years presently scheduled (as shown in Figure 6-2).
- 2. Tolls on the EOWA are charged according to the rates specified in the Toll Rates section.

#### **Toll Rates**

The toll rate for the Elgin O'Hare Western Access by vehicle class (Rate Tier) and year are illustrated in Table 6-4. The basic passenger car toll rate on the Elgin O'Hare Western Access will be 20 cents per mile. However, on the 1.8-mile section from Roselle Road to Meacham Road, tolls will charged at double the base per-mile rate to compensate for the fact that tolls will not be collected on the 1.9-mile section between Roselle Road and Irving Park Road.

The toll collection method has not yet been determined. The Illinois Tollway is considering a system of mainline and ramp barrier plazas, and an electronic gantry system whereby tolls would be collected on each mainline segment according to the distances between interchanges.

The travel demand modeling completed for the present study assumes that every passenger car is charged exactly the per-mile toll rate. In practice, the electronic gantry system would ensure that the actual rate charged to each vehicle closely matches the target per-mile toll rate. Whereas, with a closed mainline/ramp barrier system, depending upon a vehicle's entry and exit point and the configuration of toll plazas, it is possible for actual per-mile toll rates to vary widely from the target rate.



Table 6-4: Elgin O'Hare Per-Mile Toll Rates by Vehicle Class and Year

Rate Tier	1	2	3	4
Year	Passenger Cars	Small Trucks	Medium Trucks	Large Trucks
2013				
2014				
2015				
2016				
2017	\$0.20	\$0.38	\$0.58	\$1.02
2018	\$0.20	\$0.39	\$0.59	\$1.04
2019	\$0.20	\$0.40	\$0.60	\$1.07
2020	\$0.20	\$0.41	\$0.61	\$1.09
2021	\$0.20	\$0.42	\$0.62	\$1.11
2022	\$0.20	\$0.42	\$0.64	\$1.13
2023	\$0.20	\$0.43	\$0.65	\$1.15
2024	\$0.20	\$0.44	\$0.66	\$1.18
2025	\$0.20	\$0.45	\$0.67	\$1.20
2026	\$0.20	\$0.46	\$0.69	\$1.22
2030	\$0.20	\$0.50	\$0.75	\$1.32
2040	\$0.20	\$0.61	\$0.91	\$1.61

#### **Annualization Procedure**

The Illinois Tollway travel demand model outputs daily transactions and revenue for a typical weekday. An "Annualization Procedure," similar to the one used for the existing system and described in Chapter 5, was used to convert the weekday estimates first into average daily transaction (ADT) estimates, and then into annual traffic and revenue estimates. Transaction data from the nearby Plaza 73 (I-355 at Army Trail Road) was used to determine the weekday-to-annual factors on the EOWA.

#### **Estimated Annual Revenues**

Though revenue estimates were prepared using the Illinois Tollway toll diversion model, as described in Chapter 4, study of the EOWA is ongoing and expected to continue in 2013. Additionally, several key decisions regarding the final toll configuration and rates are pending as of the writing of this document. Moreover, the Federal Highway Administration (FHWA) must authorize tolling of the existing portion of the EOWA and a Record of Decision must be issued for the EOWA's Environmental Impact Statement (EIS).



Table 6-5 presents the estimated annual revenues on the Elgin O'Hare Western Access, the revenues from the existing Illinois Tollway routes, and the sum of the two. The final column in the table shows the percentage of revenue contributed by the EOWA in each year.

Table 6-5: Elgin O'Hare Western Access and Existing System Total Annual Revenues

Year	Elgin O'Hare Western Access (EOWA)	Existing System	Total	EOWA as Percent of Total Revenue
2013	\$ -	\$ 990,351	\$ 990,351	0.0%
2014	-	1,016,228	1,016,228	0.0
2015	-	1,165,872	1,165,872	0.0
2016	-	1,231,659	1,231,659	0.0
2017	19,259	1,324,133	1,343,392	1.4
2018	19,705	1,363,204	1,382,910	1.4
2019	34,085	1,404,291	1,438,375	2.4
2020	34,733	1,470,910	1,505,643	2.3
2021	34,926	1,509,198	1,544,125	2.3
2022	35,211	1,529,260	1,564,471	2.3
2023	35,622	1,608,364	1,643,987	2.2
2024	36,036	1,658,746	1,694,782	2.1
2025	36,582	1,699,380	1,735,963	2.1
2026	82,276	1,726,543	1,808,819	4.5
2027	83,414	1,769,060	1,852,475	4.5
2028	84,715	1,808,922	1,893,637	4.5
2029	85,628	1,843,932	1,929,560	4.4
2030	86,775	1,877,419	1,964,195	4.4
2031	87,932	1,909,931	1,997,862	4.4
2032	89,423	1,942,388	2,031,811	4.4
2033	90,397	1,973,217	2,063,613	4.4
2034	91,627	2,004,976	2,096,603	4.4
2035	92,887	2,041,778	2,134,665	4.4
2036	94,465	2,079,510	2,173,974	4.3
2037	95,566	2,108,447	2,204,012	4.3
2038	96,923	2,144,546	2,241,469	4.3
2039	98,363	2,179,498	2,277,861	4.3
2040	100,139	2,218,780	2,318,919	4.3



Estimated revenue projections begin with the completion of the widening of the existing section of the Elgin O'Hare Expressway and the construction of the first new section in 2017. Sharp revenue increases are anticipated in 2019 and 2026, as additional sections of the EOWA are completed and opened to traffic. During these two years in which new sections are opened, revenues are expected to jump 73.0, and 124.9 percent respectively. After the year 2026, revenues are expected to increase at a more gradual of approximately 1.4 percent per year.

As no tolling configuration or rates have been adopted to date, CDM Smith has assumed that tolls will be collected electronically between each mainline segment with through trips not exceeding an average rate of \$0.20/mile. The number of transactions generated under an all-electronic toll collection (AET) scheme can be high in comparison to a traditional barrier system due to the presence of an AET tolling zone between every interchange. Transactions on systems using a similar configuration are typically bundled into trips in a process called "trip reconstruction." This occurs internally through use of back-office processing software. A direct comparison of transactions on the EOWA and those taking place on the rest of the traditional barrier system is not practical due to the incongruity in collection methods. As such, this section includes gross toll revenue only. Any comparison between EOWA and the Illinois Tollway system are made against gross toll revenues.

#### Impact of EOWA on other Tollway Routes

The EOWA will increase overall revenues on the Illinois Tollway system. However, the EOWA will also draw some traffic away from the existing system routes, thereby reducing revenues on those routes when compared to the "EOWA No Build Scenario". Table 6-6 illustrates the total revenue impacts on the four existing Illinois Tollway routes. After the EOWA is fully completed in 2026, the EOWA is expected to reduce existing system revenues by approximately \$18.2 to \$22.3 million per year between 2026 and 2040 (as compared to the EOWA No-Build revenues presented in Chapter 5).

The east-west aligned Elgin O'Hare will serve as an alternative to the Jane Addams Memorial Tollway (I-90). To a lesser extent, the Elgin O'Hare will serve as an alternate to the Reagan Memorial Expressway (I-88). The north-south aligned Western Access will serve as an alternative to the portion of the Tri-State Tollway (I-294) on the east side of O'Hare Airport. To a lesser extent, the Western Access will also serve as an alternate to the north-south portion of I-290 (Eisenhower Expressway), and the northern portion of the Veterans Memorial Tollway (I-355). The two mainline toll plazas estimated to experience the largest revenue declines are Plaza 17 (Westbound I-90 at Devon Avenue) and Plaza 33 (Southbound I-294 at Irving Park Road). Though these toll plazas are located on different facilities, they actually serve opposing directions of the same trip pattern. Many drivers travel northbound on I-294 and head westbound on I-90 to the northwest suburbs (paying a toll at Plaza 17 en route). On the reciprocal movement (east on I-90 and south on I-294) drivers must pay a toll at Plaza 33.

CDM Smith's modeling also suggests a slight decline in revenues at Plaza 73 (I-355 at Army Trail Road). Conversely, current modeling exercises indicate small increases in revenues at the Tri-State Tollway mainline plazas located south of O'Hare Airport: Plaza 35 (Northbound/



Southbound I-294 at Cermak Road); Plaza 36 (Southbound I-294 at 82nd Street); Plaza 39 (Northbound I-294 at 83rd Street); and Plaza 41 (Northbound/Southbound I-294 at 163rd Street).

Table 6-6: Impact of EOWA on Existing Tollway System Revenues

Year	Existing System without EOWA	Existing System with EOWA	Revenue Impact	Elgin O'Hare Western Access Gross Revenues	Elgin O'Hare Western Access Net Impact		
2013	\$ 990,351	\$ 990,351	\$ (0)	\$ (0)	\$ (0)		
2014	1,016,228	1,016,228	0	0	0		
2015	1,165,872	1,165,872	0	0	0		
2016	1,231,659	1,231,659	0	0	0		
2017	1,324,992	1,324,133	-859	19,259	18,400		
2018	1,363,153	1,363,204	51	19,705	19,757		
2019	1,406,264	1,404,291	-1,973	34,085	32,111		
2020	1,473,032	1,470,910	-2,122	34,733	32,611		
2021	1,509,592	1,509,198	-394	34,926	34,533		
2022	1,527,872	1,529,260	1,388	35,211	36,599		
2023	1,610,321	1,608,364	-1,957	35,622	33,666		
2024	1,660,799	1,658,746	-2,053	36,036	33,983		
2025	1,701,907	1,699,380	-2,527	36,582	34,056		
2026	1,744,755	1,726,543	-18,212	82,276	64,064		
2027	1,787,535	1,769,060	-18,475	83,414	64,940		
2028	1,827,703	1,808,922	-18,781	84,715	65,934		
2029	1,862,917	1,843,932	-18,985	85,628	66,643		
2030	1,896,692	1,877,419	-19,273	86,775	67,503		
2031	1,929,454	1,909,931	-19,523	87,932	68,408		
2032	1,962,227	1,942,388	-19,839	89,423	69,584		
2033	1,993,294	1,973,217	-20,077	90,397	70,319		
2034	2,025,311	2,004,976	-20,335	91,627	71,292		
2035	2,062,432	2,041,778	-20,654	92,887	72,233		
2036	2,100,502	2,079,510	-20,992	94,465	73,472		
2037	2,129,700	2,108,447	-21,253	95,566	74,312		
2038	2,166,138	2,144,546	-21,592	96,923	75,331		
2039	2,201,414	2,179,498	-21,916	98,363	76,447		
2040	2,241,121	2,218,780	-22,341	100,139	77,798		



## Chapter 7

## **Sensitivity Tests**

A series of tests were conducted to measure the sensitivity of annual transactions and revenue on the Illinois Tollway to changes in key model parameters. Each sensitivity test was conducted in four future model years: 2015, 2020, 2026, and 2030 for the existing system only. Sensitivity tests were conducted by modifying one of three key parameters from the values assumed in the base-case analysis:

- 1. **Higher VOT:** Increased the value of time (VOT) by 20 percent.
- 2. Lower VOT: Reduced VOT by 20 percent.
- 3. **Increased motor fuel costs:** Increased the cost of gasoline by 50 percent.
- 4. **Lower long-term economic growth (all trips):** Reduced rate of growth affecting total demand between each model year by 50 percent.
- 5. **Lower long-term economic growth (CV only):** Reduced rate of growth affecting commercial vehicle demand only between each model year by 50 percent.

Note that the sensitivity tests conducted are not meant to represent likely scenarios or events. Sensitivity tests are undertaken to illustrate the revenue impacts resulting from shifts in key inputs. This helps identify those factors that pose the greatest revenue risk. For example, a forecast that is reduced significantly as a result of a reduction in population growth would indicate that the facility being tested is highly deepened on future development. This implies a certain risk profile, as planned development does not always occur as planned. A forecast that is unresponsive to a reduction in growth would imply a facility in a mature area and an existing user base. This would imply a more stable forecast with lower risk. Using scenarios featuring outsized changes in key drivers simply serves to make the resulting revenue impacts more discernible. The following sections describe these sensitivity tests in greater detail, along with the results of each test.

## Higher Value of Time

Individual VOT is a critical parameter in the toll diversion model. A motorist's decision to use a toll road is heavily influenced by the travel time savings relative to the toll charged. VOTs for individual movements are based on socioeconomic parameters such as annual hours worked and median household income. In this sensitivity test, the VOTs for all vehicle rate tiers were increased by 20 percent. Table 7-1 illustrates the transactions and revenues for the base cases and for this sensitivity test scenario.

By increasing the VOT, drivers will have a greater incentive to travel the fastest route and less impedance to paying tolls. In turn, the transactions and revenue on the Illinois Tollway should

increase. The results show that for a 20 percent VOT increase, transactions and revenue increased approximately three percent in the initial year tested, with impacts diminishing over time. The revenue increases 3.4 percent in 2015, declining to 2.9 percent in 2030.

The impact of a higher VOT diminishes over time because there are no further rate increases assumed for passenger cars, while inflation continues to apply. This has the effect of reducing the toll rate on passenger vehicles in comparison to the cost of other goods and services that are subject to inflationary increases. The same phenomenon is not observed in CVs, as CV rates are pinned to inflation and the value of the toll relative to VOT remains constant.

	Transactions (thousands)							Revenue (thousands)							
Model Year	Base Scenario	Sensitivity Test	Absolute Difference	Percent Difference	Ва	Base Scenario		nsitivity Test	Absolute Difference	Percent Difference					
2015	870,566	897,474	26,907	3.1%	\$	1,165,872	\$	1,205,557	39,685	3.4%					
2020	1,019,950	1,046,247	26,296	2.6%		1,473,032		1,519,307	46,275	3.1%					
2026	1,109,033	1,136,249	27,216	2.5%		1,744,755		1,799,526	54,771	3.1%					
2030	1,149,249	1,173,739	24,489	2.1%		1,896,692		1,951,734	55,041	2.9%					

Table 7-1: Results of Higher VOT Sensitivity Test

#### Lower Value of Time

In this sensitivity test, VOT was reduced by 20 percent for all rate tiers and model years. Reduced VOT would be the likely result of declining wages in a generally weaker economy. Reducing the VOT would be expected to have an adverse effect on Tollway transactions and revenue as a motorist's willingness (or ability) to pay for time savings is diminished. As expected and presented in Table 7-2, transactions and revenue decline in response to a decreased VOT. The negative impacts of the decrease in VOT diminish over time due to the effects of inflation on the constant toll rate. Similar to the previous sensitivity test, the impact to CV transactions and revenues remains relatively constant over time because CV toll rates will be pegged to inflation after 2017.

Revenue (thousands) Transactions (thousands) Absolute Percent **Absolute** Percent **Model Year** Sensitivity Test Sensitivity Test Base Scenario Difference Difference Base Scenario Difference Difference 2015 870,566 833,411 -37,156 -4.3% 1,165,872 1,112,159 -53,712 -4.6% 2020 1,019,950 982.356 -37.594 -3.7% 1,473,032 1,408,748 -64,284 -4 4% -35,632 2026 1,109,033 1,073,401 -3.2% 1,744,755 1,674,555 -70.200 -4 0% 2030 -33,822 -2.9% -73,961 -3.9% 1,149,249 1,115,428 1,896,692 1,822,731

Table 7-2: Results of Lower VOT Sensitivity Test

#### **Motor Fuel Costs**

The United States experienced a sharp increase in motor fuel prices from April to August 2008. During that time, national average prices rose to \$4.00 per gallon for regular-grade, unleaded fuel. Prices dropped sharply at the end of 2008, but trended higher throughout 2009 and 2010. By May 2011, the U.S. average price neared the 2008 record price, and has again approached that level in April 2012 and August 2012. In addition to the volatility, motor fuel prices in the Chicago region



tend to be 10 to 15 percent higher than the U.S. national average. Therefore, testing the sensitivity of Tollway transactions and revenues to motor fuel costs is particularly important given the recent price volatility and higher overall fuel costs in the Tollway Service Area.

For the motor fuel sensitivity tests, CDM Smith increased the cost of motor fuel for all vehicle classes by 50 percent in all years. When motor fuel costs increase, motorists sensitivity to trip distance increases. Finding the shortest distance path to one's destination becomes increasingly important relative to time savings. As such, some trips will begin to divert to more direct routes, even if doing so means increased travel time. Moreover, CDM Smith has observed that rising gas prices reduce overall travel demand as individuals carpool, make use of transit options, walk, or bike as an alternative to driving. In addition to increasing the fuel component of VOC by 50 percent, CDM Smith reduced regional travel demand by 5.0 percent in all years.

Table 7-3 illustrates the transactions and revenue impacts of increased motor fuel costs. Reduction in both transactions and revenue is substantial at approximately 6.0 percent in 2015. This effect diminished slightly over time as regional demand and congestion increases and makes local roads less attractive. However, much of this impact is a result of lower regional travel demand and reduced congestion on routes competing with Tollway facilities rather than gas prices alone. This may be due to the fact that most Tollway facilities compete directly with proximate, parallel free routes. Because the Tollway can, in many cases, save both time and distance, it remains attractive even as operating costs rise.

Transactions (thousands) Revenue (thousands) Absolute Absolute **Model Year** Base Scenario Sensitivity Test Difference Difference **Base Scenario** Sensitivity Test Difference Difference 2015 870,566 818,280 -52,287 -6.0% 1,165,872 1,095,786 -70,086 -6.0% 2020 1,019,950 959,894 -60.057 -5.9% 1,473,032 1,387,015 -86,017 -5.8% 2026 1,109,033 1,045,784 -63,248 -5.7% 1,744,755 1,645,174 -99,581 -5.7% 2030 1,149,249 1,085,125 107.828 1,896,692 1,788,864

Table 7-3: Results of Higher Motor Fuel Cost Sensitivity Test

## Reduced Trip Growth

This sensitivity test considers the impacts of reduced socioeconomic growth, which is intended to reflect slower than anticipated growth in employment and population simulated by reducing the rate of trip growth by 50 percent between each model year. Note that this is not a reduction in total trips of 50 percent, but rather a reduction in the growth rate. Because each subsequent reduction in growth reduces the base value of the following model year, the effects of this reduction are compounding. As demonstrated in Table 7-4, transactions are reduced by 3.6 percent in 2015, growing to a reduction of 12.5 percent compared to the base case. The impact to revenues is incrementally higher on a percentage basis, with a decrease of 4.4 percent in 2015, and a decrease of 15.9 percent in 2030.



Table 7-4: Results of Lower Trip Rate Growth Sensitivity Test

		Transactions (th	ousands)		Revenue (thousands)						
Model Year	Base Scenario	Sensitivity Test	Absolute Difference	Percent Difference	Base Scenario	Sensitivity Test	Absolute Difference	Percent Difference			
2015	870,566	839,405	-31,162	-3.6%	\$ 1,165,872	\$ 1,114,376	-51,496	-4.4%			
2020	1,019,950	945,552	-74,398	-7.3%	1,473,032	1,335,352	-137,680	-9.3%			
2026	1,109,033	991,809	-117,224	-10.6%	1,744,755	1,511,152	-233,603	-13.4%			
2030	1,149,249	1,005,343	-143,906	-12.5%	1,896,692	1,595,612	-301,081	-15.9%			

## Reduced Commercial Vehicle Trip Growth

Chapter 5 noted that much of the growth in revenues after 2017 is due to the continued, inflation-indexed increases in CV toll rates. To test the sensitivity of future revenues to CV traffic, the growth rate of CV trips was reduced by 50 percent. Figure 7-7 shows the revenue impact of this sensitivity test. Because the growth *rate* was reduced, the transactions and revenues fall progressively farther behind the base-case results. In 2015, transactions are reduced only 0.8 percent, but by 2030 transactions are 2.4 percent below the base-case revenues. Another notable aspect of this test is high revenue per transaction generated by CVs. In 2011, CVs accounted for only 11 percent of all transactions, but 46 percent of all revenues (a more than 4-to-1 ratio). Though transactions are reduced by seemingly small amounts (0.8 to 2.4 percent), the revenue implications are larger. In 2015, revenues are reduced 2.5 percent, and by 2030 this impact increases to 9.5 percent.

Table 7-5: Results of Lower CV Trip Growth Sensitivity Test

		Transactions (th	ousands)		Revenue (thousands)						
Model Year	Base Scenario	Sensitivity Test	Absolute Difference	Percent Difference	Base Scenario	Sensitivity Test	Absolute Difference	Percent Difference			
2015	870,566	864,026	-6,541	-0.8%	\$ 1,165,872	\$ 1,136,484	-29,388	-2.5%			
2020	1,019,950	1,002,837	-17,113	-1.7%	1,473,032	1,387,403	-85,629	-5.8%			
2026	1,109,033	1,085,735	-23,298	-2.1%	1,744,755	1,605,537	-139,219	-8.0%			
2030	1,149,249	1,121,848	-27,401	-2.4%	1,896,692	1,717,209	-179,484	-9.5%			

# Appendix A

Toll Rates and Vehicle Classification As of January 1, 2012



Table A-1: 2012 Toll Rate and Vehicle Classification (1)

				Commercial Vehicles						
	Plaza	Passen	ger Car		Daytime <sup>(2)</sup>			Overnight (2)		
Toll Plaza	number	I-PASS Cash		Small	Small Medium		Small	Medium Large		
Jane Addams Memorial Tollway	L									
South Beloit Mainline	1	\$ 0.95	\$ 1.90	\$ 1.90	\$ 2.85	\$ 5.00	\$ 1.25	\$ 2.20	\$ 3.75	
East Riverside Blvd *	2	\$ 0.55	\$ 1.10	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25	
IL 173 *	4	\$ 0.55	\$ 1.10	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25	
Belvidere Mainline	5	\$ 1.50	\$ 3.00	\$ 3.00	\$ 4.50	\$ 8.00	\$ 2.00	\$ 3.50	\$ 6.00	
Ma re ngo Mainline	7	\$ 1.50	\$ 3.00	\$ 3.00	\$ 4.50	\$ 8.00	\$ 2.00	\$ 3.50	\$ 6.00	
Randall Rd *	8	\$ 0.55	\$ 1.10	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25	
Elgin Mainline	9	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00	
Barrington Rd *	10	\$ 0.45	\$ 0.90	\$ 0.95	\$ 1.45	\$ 2.50	\$ 0.65	\$ 1.15	\$ 1.90	
Route 31*	11	\$ 0.55	\$ 1.10	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25	
Ros elle Rd *	12	\$ 0.45	\$ 0.90	\$ 0.95	\$ 1.45	\$ 2.50	\$ 0.65	\$ 1.15	\$ 1.90	
Route 25 *	13	\$ 0.55	\$ 1.10	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25	
Route 59 WB Exit *	16A	\$ 0.45	\$ 0.90	\$ 0.95	\$ 1.45	\$ 2.50	\$ 0.65	\$ 1.15	\$ 1.90	
Route 59 EB Exit *	14	\$ 0.30	\$ 0.60	\$ 0.60	\$ 0.85	\$ 1.50	\$ 0.40	\$ 0.70	\$ 1.15	
Route 53 *	15	\$ 0.30	\$ 0.60	\$ 0.60	\$ 0.85	\$ 1.50	\$ 0.40	\$ 0.70	\$ 1.15	
BeverlyRd *	16B	\$ 0.45	\$ 0.90	\$ 0.95	\$ 1.45	\$ 2.50	\$ 0.65	\$ 1.15	\$ 1.90	
Devon Mainline	17	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00	
Arlington Heights Rd *	18	\$ 0.45	\$ 0.90	\$ 0.95	\$ 1.45	\$ 2.50	\$ 0.65	\$ 1.15	\$ 1.90	
River Rd Mainline	19	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00	
Tri-State Tollway										
Buckley Rd *	20	\$ 0.45	\$ 0.90	\$ 0.95	\$ 1.45	\$ 2.50	\$ 0.65	\$ 1.15	\$ 1.90	
Waukegan Mainline	21	\$ 1.40	\$ 2.80	\$ 2.85	\$ 4.25	\$ 7.50	\$ 1.90	\$ 3.30	\$ 5.65	
Route 60 *	22	\$ 0.45	\$ 0.90	\$ 0.95	\$ 1.45	\$ 2.50	\$ 0.65	\$ 1.15	\$ 1.90	
Half Day Rd *	23	\$ 0.45	\$ 0.90	\$ 0.95	\$ 1.45	\$ 2.50	\$ 0.65	\$ 1.15	\$ 1.90	
Edens Spur Mainline	24	\$ 0.95	\$ 1.90	\$ 1.90	\$ 2.85	\$ 5.00	\$ 1.25	\$ 2.20	\$ 3.75	

						Commerci	al Vehicles		
	Plaza	Passen	ger Car		Daytime <sup>(2)</sup>			Overnight (2)	
Toll Plaza	number	I-PASS	Cash	Small	Medium	Large	Small	Medium	Large
Tri-State Tollway (cont'd)									
Lake CookRd *	26	\$ 0.95	\$ 1.90	\$ 1.90	\$ 2.85	\$ 5.00	\$ 1.25	\$ 2.20	\$ 3.75
Willow Rd *	27	\$ 0.95	\$ 1.90	\$ 1.90	\$ 2.85	\$ 5.00	\$ 1.25	\$ 2.20	\$ 3.75
Golf Rd *	28	\$ 0.95	\$ 1.90	\$ 1.90	\$ 2.85	\$ 5.00	\$ 1.25	\$ 2.20	\$ 3.75
Touhy Mainline	29	\$ 0.95	\$ 1.90	\$ 1.90	\$ 2.85	\$ 5.00	\$ 1.25	\$ 2.20	\$ 3.75
Balmoral NB [Open late 2011] ^	30	\$ 0.80	n/a	\$ 3.00	\$ 4.50	\$ 8.00	\$ 2.00	\$ 3.50	\$ 6.00
O'Hare WB *	31	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
O'Hare EB *	32	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
Irving Park Mainline	33	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
Willow Springs Rd *	34	\$ 0.55	\$ 1.10	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25
Cermak Mainline	35	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
82nd Street Mainline	36	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
I-55 (Stevenson Expressway) *	37	\$ 0.30	\$ 0.60	\$ 0.60	\$ 0.85	\$ 1.50	\$ 0.40	\$ 0.70	\$ 1.15
95th St *	38	\$ 0.55	\$ 1.10	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25
83rd St Mainline	39	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
159th St *	40	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
163rd St Mainline	41	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
I-80 WB	43	\$ 0.55	\$ 1.10	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25
I-80 EB	45	\$ 0.55	\$ 1.10	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25
Halsted St *	47	\$ 0.30	\$ 0.60	\$ 0.60	\$ 0.85	\$ 1.50	\$ 0.40	\$ 0.70	\$ 1.15
Ronald Reagan Memorial Tollway									
York Mainline	51	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
Meyers Mainline	52	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
Spring Rd*	53	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
Illinois 83 *	54	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
Midwest Rd *	55	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
Highland Av *	56	\$ 0.55	\$ 1.10	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25



						Commerci	al Vehicles		
	Plaza	Passen	ger Car		Daytime (2)			Overnight (2)	
Toll Plaza	number	I-PASS	Cash	Small	Medium	Large	Small	Medium	Large
Ronald Reagan Memorial Tollway (co	nt'd)								
Na perville Rd *	57	\$ 0.30	\$ 0.60	\$ 0.60	\$ 0.85	\$ 1.50	\$ 0.40	\$ 0.70	\$ 1.15
Winfield Rd *	58	\$ 0.30	\$ 0.60	\$ 0.60	\$ 0.85	\$ 1.50	\$ 0.40	\$ 0.70	\$ 1.15
Farnsworth Av*	59	\$ 0.55	\$ 1.10	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25
Eola Rd (I-PASS/E-ZPass only) ^	60	\$ 0.55	n/a	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25
Aurora Mainline	61	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
Route 31 *	63	\$ 0.55	\$ 1.10	\$ 1.15	\$ 1.70	\$ 3.00	\$ 0.75	\$ 1.35	\$ 2.25
Orchard Rd *	64	\$ 0.45	\$ 0.90	\$ 0.95	\$ 1.45	\$ 2.50	\$ 0.65	\$ 1.15	\$ 1.90
Peace Rd *	65	\$ 0.75	\$ 1.50	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
De Kalb Mainline *	66	\$ 1.80	\$ 3.60	\$ 3.60	\$ 5.35	\$ 9.50	\$ 2.40	\$ 4.20	\$ 7.15
De Kalb West Ramp/Annie Glidden Rd*	67	\$ 1.05	\$ 2.10	\$ 2.10	\$ 3.10	\$ 5.50	\$ 1.40	\$ 2.45	\$ 4.15
Dixon Mainline *	69	\$ 1.80	\$ 3.60	\$ 3.60	\$ 5.35	\$ 9.50	\$ 2.40	\$ 4.20	\$ 7.15
Veterans Memorial Tollway									
Army Trail Road Mainline	73	\$ 0.95	\$ 1.90	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
North Av*	75	\$ 0.75	\$ 1.50	\$ 1.20	\$ 1.80	\$ 3.20	\$ 0.80	\$ 1.40	\$ 2.40
Roosevelt Rd *	77	\$ 0.65	\$ 1.30	\$ 1.05	\$ 1.60	\$ 2.80	\$ 0.70	\$ 1.25	\$ 2.10
Butterfield Rd *	79	\$ 0.45	\$ 0.90	\$ 0.75	\$ 1.15	\$ 2.00	\$ 0.50	\$ 0.90	\$ 1.50
Ogden Av*	81	\$ 0.45	\$ 0.90	\$ 0.75	\$ 1.15	\$ 2.00	\$ 0.50	\$ 0.90	\$ 1.50
Maple Av*	83	\$ 0.55	\$ 1.10	\$ 0.90	\$ 1.35	\$ 2.40	\$ 0.60	\$ 1.05	\$ 1.80
63rd St *	85	\$ 0.65	\$ 1.30	\$ 1.05	\$ 1.60	\$ 2.80	\$ 0.70	\$ 1.25	\$ 2.10
75th St *	87	\$ 0.75	\$ 1.50	\$ 1.20	\$ 1.80	\$ 3.20	\$ 0.80	\$ 1.40	\$ 2.40
Boughton Mainline	89	\$ 0.95	\$ 1.90	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
Boughton Rd *	90	\$ 0.45	\$ 0.90	\$ 0.75	\$ 1.15	\$ 2.00	\$ 0.50	\$ 0.90	\$ 1.50
127th St *	93	\$ 0.95	\$ 1.90	\$ 1.50	\$ 2.25	\$ 4.00	\$ 1.00	\$ 1.75	\$ 3.00
Archer Ave/143rd St *	95	\$ 1.20	\$ 2.40	\$ 1.95	\$ 3.00	\$ 5.20	\$ 1.30	\$ 2.30	\$ 3.90
IL7 (159th St) *	97	\$ 1.40	\$ 2.80	\$ 2.25	\$ 3.45	\$ 6.00	\$ 1.50	\$ 2.70	\$ 4.50
Spring Creek Mainline	99	\$ 1.90	\$ 3.80	\$ 3.00	\$ 4.50	\$ 8.00	\$ 2.00	\$ 3.50	\$ 6.00
US 6 *	1	\$ 0.45	\$ 0.90	\$ 0.75	\$ 1.15	\$ 2.00	\$ 0.50	\$ 0.90	\$ 1.50



Autos Auto/Motorcycle 2 axles/four or less tires; auto, motorcycle
Trucks Small Truck 2 axles/6 tires; single unit trucks, buses

Medium Truck 3 & 4 axles; trucks, buses, auto with 1-2 axle trailers

Large Truck 5 + axles; trucks, auto with 3+ axle trailers

Daytime = 6:00AM-10:00PM Overnight = 10:00PM-6:00AM



<sup>\*</sup> Unattended plaza; I-PASS, E-ZPass, or exact coins only. No receipts.

<sup>^</sup> No cash accepted; I-PASS or E-ZPass only, unattended plaza. No receipts. Non I-PASS or E-ZPass cars are charged the cash fare shown for post-paid tolls.

<sup>(1)</sup> Description of vehicle classification categories:

<sup>(2)</sup> Daytime and Overnight Schedule

# Appendix B

# Economic and Demographic Growth Review and Forecasts

Appendix B of the Traffic Engineer's Report is not included herein. The Traffic Engineer's Report is otherwise complete. A copy of the complete Traffic Engineer's Report, including its Appendix B, has been filed with the Electronic Municipal Market Access System ("EMMA") maintained by the Municipal Securities Rulemaking Board and is incorporated by reference herein.



#### APPENDIX D

#### SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE

The following summary of certain provisions of the Indenture is qualified in its entirety by reference to the Indenture.

#### **Definitions**

"Act" means the Toll Highway Act of the State of Illinois, 605 ILCS 10/1 et seq., as amended.

"Additional Bonds" means Additional Senior Bonds and any Junior Bonds issued pursuant to the terms of the Indenture.

"Additional Senior Bonds" means any Bond or Bonds originally issued as Senior Bonds after March 31, 1999, the date certain provisions of the Amendatory Supplemental Indenture became effective.

"Aggregate Debt Service" means, for any Fiscal Year and as of any date of calculation, the sum of the amounts of Debt Service for such Fiscal Year with respect to all series of Senior Bonds.

*"Amendatory Supplemental Indenture"* means the 1996 Amendatory Supplemental Indenture dated as of September 1, 1996, between the Authority and the Trustee.

"Authorized Officer" means any director, officer or employee of the Authority authorized to perform specific acts or duties by a resolution duly adopted by the Authority.

"Authorized Denominations" means \$5,000 and any integral multiple thereof.

"Bond" or "Bonds" means bond or bonds, including Senior Bonds and Junior Bonds, authenticated and delivered pursuant to the Indenture, other than Subordinated Indebtedness.

*"Bond Counsel"* means one or more firms of nationally recognized bond counsel designated by the Attorney General of the State.

"Bondholder," or "Holder," means any person who shall be the bearer of any coupon Bond or Bonds or the registered owner of any registered Bond or Bonds without coupon.

"Business Day" means any day which is not a Sunday or legal holiday or a day (including Saturday) on which banking institutions in the city where the principal corporate trust office of any Fiduciary is located are authorized by law or executive order to close (and such Fiduciary is in fact closed).

"Capital Appreciation Bond" means a Bond accruing interest that is compounded and added to principal as of such date or dates specified in the related Supplemental Indenture and is payable at maturity. Any Capital Appreciation Bond may mature on any date specified in the related Supplemental Indenture. The term "principal" when used in connection with a Capital Appreciation Bond shall mean the initial principal amount of such Bond as of its date of issuance plus interest accreted thereon to the date of calculation, which in the aggregate shall constitute the maturity amount of such Capital Appreciation Bond as of the date of maturity thereof.

"Construction Fund" means the Construction Fund established pursuant to the Indenture for the purpose of paying costs of any Project.

"Consulting Engineers" means an engineer or engineering firm or corporation at the time retained by the Authority pursuant to the Indenture to perform the acts and carry out the duties provided for such Consulting Engineers in the Indenture.

"Costs of Construction" means with respect to any Project the cost of construction, acquisition, installation, reconstruction, modification, preservation, replacement, repairs, renewals or enhancement, including, without limitation, bridges over or under existing highways and railroads, the cost of acquisition of all land, rights of way, property, rights, easements and interests, acquired by the Authority for such construction, acquisition, installation, reconstruction, modification, preservation, replacement, repairs, renewals or enhancement, the cost of demolishing or removing any buildings or structures on land so acquired, including the cost of acquiring any lands to which such buildings or structures may be moved, the cost of diverting highways, interchange of highways, access to roads to private property, including the cost of lands or easements, the cost of all machinery and equipment, financing charges, interest prior to and during work or construction and for up to two years after completion of the work or construction, the cost of traffic estimates and of engineering and legal expenses, plans, specifications, surveys, estimates of cost and revenues, other expenses necessary or incident to determining the feasibility or practicability of constructing any Project, administrative expenses and such other costs, expenses and funding as may be necessary or incident to the Project, the financing of such construction or work and the placing of such Project in operation.

"Costs of Credit Enhancement" means any fees of, or termination payments to, any Provider of Credit Enhancement; provided, that with respect to any Credit Enhancement executed and delivered or becoming effective on or after the effective date of the amendment to the Indenture establishing the Termination Payment Account (June 22, 2005), "Costs of Credit Enhancement" shall not include termination payments required to be made in connection with any such Credit Enhancement.

"Costs of Hedge Agreement" means any fees of, or termination payments to, any Provider of a Hedge Agreement; provided, that with respect to any Qualified Hedge Agreement executed and delivered or becoming effective on or after the effective date of the amendment to the Indenture establishing the Termination Payment Account (June 22, 2005), "Costs of Hedge Agreement" shall not include termination payments required to be made in connection with any such Qualified Hedge Agreement.

*"Credit Enhancement"* means any arrangement to provide additional security or liquidity for Bonds including, without limitation, surety bonds, bond insurance, letters of credit, lines of credit and purchase and remarketing agreements, but does not include Reserve Account Credit Facilities.

"Current Funds" means moneys that are immediately available in the hands of the payee at the place of payment.

"Debt Reserve Account" means the Debt Reserve Account established in the Indenture.

"Debt Reserve Requirement" means, as of any date of calculation, the maximum annual Aggregate Debt Service for any Fiscal Year for all Senior Bonds.

"Debt Service" means, for any period longer than one month, as of any date of calculation, an amount equal to the sum of Principal Installments and interest on Senior Bonds payable (or for the payment for which amounts are required to be deposited in the Debt Service Account) during

such period, except to the extent that such interest is to be paid from Bond proceeds deposited to the credit of the Debt Service Account. Interest and Principal Installment amounts payable shall be calculated, for purposes of this definition, on the assumption that Senior Bonds Outstanding at the date of calculation will cease to be Outstanding by reason, but only by reason, of the payment of each Principal Installment on its due date. Interest and Principal Installments payable on January 1 of any Fiscal Year shall be deemed to be payable on December 31 of the preceding year. For purposes of applying this definition with respect to the calculations required by the Authority's toll covenants and calculating the Debt Reserve Requirement, the amount of interest to be payable on Senior Bonds having variable interest rates shall be computed by assuming that the rate of interest with respect to Senior Bonds, interest on which is excludable from gross income of the Holders for federal income tax purposes, is a rate equal to the lesser of (i) the 30 Year Bond Buyer Revenue Bond Index as of the date of calculation, or (ii) the maximum interest rate on such Senior Bonds, and with respect to any Senior Bonds having a variable interest rate the interest on which is not excludable from "gross income" of the Holders for federal income tax purposes, a rate equal to the lesser of (i) 115% of the 30 Year Bond Buyer Revenue Bond Index as of the date of calculation or (ii) the maximum interest rate on such Senior Bonds, including in each case taking into account any Qualified Hedge Agreement as provided in the Indenture; for purposes of the Debt Reserve Requirement this calculation shall be made as of a date selected by the Authority within thirty (30) days preceding the date of issuance of each Series of Bonds for which such calculation is required. However, the rate for any such Series of Senior Bonds for which the variable interest rate is fixed for any portion of the applicable Fiscal Year shall be assumed to be the actual rate borne by such Senior Bonds. For purposes of applying this definition with respect to the calculations required under the Indenture relating to the tests for the issuance of Additional Senior Bonds, the amount of interest payable on Senior Bonds having variable interest rates shall be computed at the maximum rate or amount for those Bonds, taking into account any Qualified Hedge Agreement. If a Series of Senior Bonds having variable interest rates is subject to purchase by the Authority pursuant to a mandatory or optional tender by the Holder, the "tender" date or dates shall be ignored and the stated Principal Installment dates of such Senior Bonds shall be used for purposes of calculating the Debt Service with respect to such Senior Bonds. If two Series of Senior Bonds having variable interest rates are issued simultaneously with inverse variable interest rates providing a composite fixed interest rate for such Senior Bonds taken at any time as a whole, such composite fixed rate shall be used in determining the Debt Service with respect to such Senior Bonds. Debt Service on Senior Bonds with respect to which there is a Qualified Hedge Agreement shall be calculated consistent with the provisions of the Indenture, as described in APPENDIX D - "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE - Hedging Transactions." Debt Service shall include Costs of Credit Enhancement, Costs of Hedge Agreements and reimbursements to Providers of Credit Enhancement and Qualified Hedge Agreements, in each case to be paid as provided in a Supplemental Indenture from the Debt Service Account.

"Debt Service Account" means the Debt Service Account established in the Indenture.

"Depositary" means any bank, national banking association or trust company having capital stock, surplus and retained earnings aggregating at least \$8,000,000, or a savings or savings and loan institution having assets aggregating at least \$65,000,000, selected by the Treasurer (and with respect to Funds, Accounts and Sub-Accounts held by the Trustee, with the consent of the Treasurer, which consent shall not be unreasonably withheld) as a depositary of moneys and securities held under the provisions of the Indenture, and may include the Trustee.

*"Eighth Supplemental Indenture"* means the Eighth Supplemental Indenture securing the 2006 Bonds, dated as of June 1, 2006, between the Authority and the Trustee.

*"Eleventh Supplemental Indenture"* means the Eleventh Supplemental Indenture securing the 2008B Bonds, dated as of November 1, 2008, between the Authority and the Trustee.

# "Event of Default" means any event described in APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Events of Default."

"Federal Securities" means (i) any direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United States of America, (ii) any Municipal Bonds which are fully secured as to principal and interest by an irrevocable pledge of moneys or direct obligations of, or obligations unconditionally guaranteed by, the United States of America, which moneys or obligations are segregated in trust and pledged for the benefit of the holders of the Municipal Bonds, (iii) certificates of ownership of the principal of or interest on direct obligations of, or obligations unconditionally guaranteed by, the United States of America, which obligations are held in trust by a commercial bank that is a member of the Federal Reserve System and (iv) interest obligations of the Resolution Funding Corporation, including, without limitation, interest obligations stripped by the Federal Reserve Bank of New York.

"Fiduciary" or "Fiduciaries" means the Trustee, the Registrar and the Paying Agents, or any or all of them, as may be appropriate.

*"Fifteenth Supplemental Indenture"* means the Fifteenth Supplemental Indenture securing Toll Highway Senior Revenue Bonds, 2013 Series A, dated as of May 1, 2013, between the Authority and the Trustee.

*"Fifth Supplemental Indenture"* means the Fifth Supplemental Indenture securing the 1996 Series A Bonds, dated as of September 1, 1996, between the Authority and the Trustee.

*"First Supplemental Indenture"* means the First Supplemental Indenture securing Toll Highway Priority Revenue Bonds, 1986 Series, dated as of October 1, 1986, between the Authority and the Trustee.

"Fiscal Year" means the period January 1 through December 31 of the same year.

"Fitch" means Fitch Ratings, its successors and assigns, and, if Fitch 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 notice to the Trustee.

*"Fourth Supplemental Indenture"* means the Fourth Supplemental Indenture securing Toll Highway Refunding Revenue Bonds, 1993 Series A and B, dated as of March 1, 1993, between the Authority and the Trustee.

"Hedge Agreement" means a payment exchange agreement, swap agreement, forward purchase agreement or any other hedge agreement entered into by the Authority providing for payments between the parties based on levels of, or changes in, interest rates, stock or other indices or contracts to exchange cash flows or a series of payments or contracts, including, without limitation, interest rate floors, or caps, options, puts or calls, which allows the Authority to manage or hedge payment, rate, spread or similar risk with respect to any Series of Senior Bonds.

"Improvement" means any System Expansion Project or any acquisition, installation, construction, reconstruction, modification or enhancement of or to any real or personal property (other than Operating Expenses) for which a currently effective resolution of the Authority has been adopted authorizing the deposit of Revenues to the credit of the Improvement Account for such System Expansion

Project or acquisition, installation, construction, reconstruction, modification or enhancement including, without limitation, the cost of related feasibility studies, plans, designs or other related expenditures.

"Improvement Account" means the Improvement Account established in the Indenture.

"Improvement Requirement" means the aggregate of the amounts established by currently effective resolutions of the Authority for specified Improvements, based upon a certificate or certificates of the Consulting Engineers with respect to the estimated costs of such Improvements filed with the Authority from time to time, less the amounts previously withdrawn or transferred from the Improvement Account to pay the costs of any such Improvements.

"Indenture" means the Amended and Restated Trust Indenture effective as of March 31, 1999 amending and restating the Trust Indenture dated as of December 1, 1985, by and between the Authority and the Trustee, as from time to time amended and supplemented, including by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture and the Fourteenth Supplemental Indenture and the Amendatory Supplemental Indenture.

"Interest Payment Date" means each January 1 and July 1, commencing January 1, 2014.

"Interest Sub-Account" means the sub-account of that name in the Debt Service Account established in the Indenture.

"Investment Securities" means any of the following securities authorized by law as permitted investments of Authority funds at the time of their purchase:

- (i) Federal Securities;
- (ii) Bonds, debentures, notes or other evidences of indebtedness issued by any of the following agencies: Government National Mortgage Association, Federal National Mortgage Association, Federal Home Loan Mortgage Corporation, Federal Land Banks, Federal Home Loan Banks, Federal Intermediate Credit Banks, Banks for Cooperatives, Tennessee Valley Authority, United States Postal Service, Farmers Home Administration, Export-Import Bank, Federal Financing Bank and Student Loan Marketing Association;
- (iii) Investments in a money market fund registered under the Investment Company Act of 1940, as amended (including any such money market fund sponsored by or affiliated with any Fiduciary), comprised of any of the investments set forth in subparagraph (i) or subparagraph (ii) above;
- (iv) Negotiable or non-negotiable certificates of deposit or time deposits or other banking arrangements issued by any bank, trust company or national banking association (including any Fiduciary), which certificates of deposit or time deposits or other banking arrangements shall be continuously secured or collateralized by obligations described in subparagraphs (i), (ii) or (iii) of this definition, which obligations shall have a market value (exclusive of accrued interest) at all times at least equal to the principal amount of such certificates of deposit or time deposits or other banking arrangements and shall be lodged with the Trustee, as custodian, by the bank, trust company or national banking association issuing such

certificates of deposit or time deposits or other banking arrangements, which certificates of deposit or time deposits or other banking arrangements acquired or entered into pursuant to this subparagraph (iv) shall be deemed for purposes of the Indenture to constitute investments and not deposits;

- (v) With respect to moneys on deposit to the credit of the Debt Service Account, the Debt Reserve Account and the Construction Fund and its separate, segregated accounts (to the extent that the Construction Fund and such separate, segregated accounts are held by the Trustee) (except the Construction Fund revolving accounts), repurchase agreements with any bank, trust company or national banking association (including any Fiduciary) or government bond dealer reporting to the Federal Reserve Bank of New York continuously secured or collateralized by obligations described in subparagraph (i) of this definition, which obligations shall have a market value (exclusive of accrued interest) at all times at least equal to the amortized value of such repurchase agreements, provided such security or collateral is lodged with and held by the Trustee or the Authority as titleholder, as the case may be;
- (vi) With respect to moneys on deposit to the credit of all Funds, Accounts and Sub-Accounts (except the Debt Service Account, the Debt Reserve Account, and the Construction Fund to the extent that the Construction Fund is held by the Trustee, the separate, segregated accounts of the Construction Fund to the extent such accounts are held by the Trustee and the revolving accounts of the Construction Fund), repurchase agreements with any bank, trust company or national banking association (including any Fiduciary) or government bond dealer reporting to the Federal Reserve Bank of New York continuously and fully secured for the benefit of the Authority and the Holders of the 2013A Bonds as provided by applicable state law with respect to the investment of public funds;
- (vii) Public housing bonds issued by public housing authorities and fully secured as to the payment of both principal and interest by a pledge of annual contributions under an annual contributions contract or contracts with the United States of America; and project notes issued by public housing authorities or by local public agencies, in each case fully secured as to the payment of both principal and interest by a requisition or payment agreement with the United States of America:
- (viii) Any Municipal Bond which has a rating by each rating agency from which the Authority has obtained Ratings for its Senior Bonds, which is not lower than the Rating provided by the respective rating agency for Senior Bonds; and
- (ix) Any other investment securities as to which the Authority has received written advice from each rating agency which has a Rating for any Senior Bonds that investment in such securities will not result in a reduction of the Rating by the rating agency.

Investment Securities shall be rated not lower than "BBB-" by Standard & Poor's Corporation and "Baa" by Moody's Investors Service, or, in the case of Investment Securities described in subparagraph (iii), subparagraph (iv), subparagraph (v) or subparagraph (vi) of this definition, shall be secured or collateralized by Investment Securities rated not lower than "BBB" by Standard & Poor's Corporation and "Baa" by Moody's Investors Service.

*"Junior Bond Debt Reserve Account or Accounts"* means any Junior Bond Debt Reserve Account or Accounts established in Supplemental Indentures authorizing the issuance of Junior Bonds.

*"Junior Bond Debt Service Account or Accounts"* means any Junior Debt Service Account or Accounts established in Supplemental Indentures authorizing the issuance of Junior Bonds.

*"Junior Bonds"* means all Bonds authenticated and delivered as Junior Bonds pursuant to the Indenture.

"Junior Bonds Revenue Requirement" means for any Fiscal Year the amount required to be deposited from the Revenue Fund to any Junior Bond Debt Service Account and any Junior Bond Debt Reserve Account. For purposes of certain provisions of the tests established by the Indenture for the issuance of Additional Senior Bonds and the Authority's toll covenants, the Junior Bond Revenue Requirement shall be the amount projected to be so required under the Supplemental Indentures authorizing the Junior Bonds, and taking into account, without limitation, (i) the expectations of the Authority as to the receipts, other than Revenues, which pursuant to the Supplemental Indentures authorizing Junior Bonds, will be applied to make such deposits to pay Principal Installments or interest, Costs of Credit Enhancement or Costs of Hedge Agreements and reimbursement to Providers of Credit Enhancement and Hedge Agreements on Junior Bonds to be paid from such Accounts; (ii) the expectations of the Authority as to future refinancings of Junior Bonds which were issued as provided in the Supplemental Indenture authorizing such Junior Bonds with the expectation of refinancing; and (iii) interest payable on Junior Bonds with variable interest rates as provided in the Supplemental Indenture authorizing Junior Bonds.

"Maintenance and Operation Account" means the Maintenance and Operation Account in the Indenture.

"Moody's" means Moody's Investors Service, a corporation organized and existing under the laws of the State of Delaware, 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 notice to the Trustee.

"Move Illinois Program" means the "Move Illinois: The Illinois Tollway Driving the Future" capital program of the Authority, as described in and approved by Resolution No. 19480 of the Authority, adopted on August 25, 2011, and as the same may be amended, revised or modified from time to time.

"Move Illinois Program Project" means, collectively, those capital improvement projects described in the Capital Program Summary for the Move Illinois Program, dated August 11, 2011, together with such additional capital improvements as may be added by the Authority pursuant to the Fifteenth Supplemental Indenture.

"Move Illinois Program Project Construction Account" means the account of that name created pursuant to the Fifteenth Supplemental Indenture for the purpose of paying Costs of Construction of the Move Illinois Program Project.

"Municipal Bonds" means, any obligations of any state, public corporation, authority, political subdivision, unit of local government or municipality of any state.

"Net Revenue Requirement" means, with respect to any period of time, an amount necessary to cure deficiencies, if any, in the Debt Service Account, the Debt Reserve Account, any Junior Bond Debt Service Account plus the greater of (i) the sum of

Aggregate Debt Service, the Junior Bond Revenue Requirement and the Renewal and Replacement Deposit for such period or (ii) 1.3 times the Aggregate Debt Service for such period.

"Net Revenues" means, for any Fiscal Year or other period of time, the Revenues, excluding amounts transferred during such Fiscal Year or period (i) to the Revenue Fund from the Construction Fund and (ii) to the Trustee by the Authority from the System Reserve Account, the Improvement Account or the Renewal and Replacement Account, less the Operating Expenses for such Fiscal Year or period.

"Ninth Supplemental Indenture" means the Ninth Supplemental Indenture securing the 2007 Bonds, dated as of November 1, 2007, between the Authority and the Trustee.

"1998 Bonds" means the 1998 Series A Bonds and the 1998 Series B Bonds.

*"1998 Series A Bonds"* means the Toll Highway Priority Refunding Revenue Bonds, 1998 Series A (Fixed Rate), authorized by the Sixth Supplemental Indenture.

*"1998 Series B Bonds"* means the Toll Highway Refunding Revenue Bonds, 1998 Series B (Variable Rate), authorized by the Sixth Supplemental Indenture.

*"1996 Series A Bonds"* means the Toll Highway Refunding Revenue Bonds, 1996 Series A, authorized by the Fifth Supplemental Indenture.

*"1993 Series B Bonds"* means the Authority's Toll Highway Refunding Revenue Bonds, 1993 Series B, issued pursuant to the Fourth Supplemental Indenture and redeemed on January 28, 2009.

*"1992 Series A Bonds"* means the Toll Highway Priority Revenue Bonds, 1992 Series A, authorized by the Third Supplemental Indenture Bonds.

"Operating Expenses" means the Authority's expenses in the normal course of business for operation, maintenance and repairs of the Tollway System or any part of it and replacement and acquisition of equipment (other than expenses which under generally accepted accounting principles are capitalized and for which amounts (other than amounts held in the Maintenance and Operation Account) are set aside or otherwise available) including, without limitation, all policing, administrative and engineering expenses, legal and financial advisory expenses, fees and expenses of the fiduciaries, payments to pension, retirement, health and hospitalization funds, insurance premiums, rentals under leases of property not constituting Projects, and any other expenses or obligations required to be paid by the Authority under the provisions of the Indenture or by law, all to the extent properly and directly attributable to the operation of the Tollway System, but not including any costs or expenses of any Project, allowance for depreciation, payments on any Outstanding Bonds, Subordinated Indebtedness or money borrowed for purposes other than Operating Expenses, or any reserves for those purposes.

"Operating Reserve Sub-Account" means the subaccount of that name in the Maintenance and Operation Account established under the Indenture.

"Operating Sub-Account" means the sub-account of that name in the Maintenance and Operation Account.

"Outstanding," when used with reference to Bonds, means, as of any date, all Bonds theretofore or thereupon being authenticated and delivered under the Indenture except:

- (i) Any Bonds canceled by the Trustee at or prior to such date;
- (ii) Bonds (or portions of Bonds) for the payment or redemption of which moneys, equal to the principal amount or Redemption Price thereof, as the case may be, with interest to the date of maturity or date fixed for redemption, are held in trust under the Indenture and set aside for such payment or redemption (whether at or prior to the maturity or redemption date), provided that if such Bonds (or portions of Bonds) are to be redeemed, notice of such redemption shall have been given as provided in the proceedings authorizing such Bonds or provision satisfactory to the Trustee shall have been made for the giving of such notice;
- (iii) Bonds in lieu of or in substitution for which other Bonds shall have been authenticated and delivered pursuant the Indenture; and
- (iv) Bonds deemed to have been paid under the provisions of the Indenture described in APPENDIX D "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE Defeasance."

"Owner" or "Registered Owner" means any person who shall be the registered owner of any Bond.

"Paying Agent" means any bank, national banking association or trust company designated by the Authority as paying agent for the 2013A Bonds of any Series, and any successor or successors appointed by the Authority under the Indenture, and for the 2013A Bonds means the Trustee.

"Principal" when used in connection with a Capital Appreciation Bond shall mean the initial principal amount of such Bond as of its date of issuance plus interest accreted thereon to the date of calculation, which in the aggregate shall constitute the maturity amount of such Capital Appreciation Bond as of the date of maturity thereof.

"Principal Installment" means, as of any particular date of calculation and with respect to any particular future date and with respect to Bonds of a particular Series, (a) the principal amount of Outstanding Bonds of said Series that are stated to mature on such future date, reduced by the aggregate principal amount of such Outstanding Bonds that would before said future date cease to be Outstanding by reason, but only by reason, of the payment when due, and application in accordance with the Indenture, of Sinking Fund Installments payable before said future date toward the retirement of such Outstanding Bonds, and (b) the amount of any Sinking Fund Installment payable on said future date toward the retirement of any Outstanding Bonds of said Series.

"Principal Sub-Account" means the sub-account of that name in the Debt Service Account established in the Indenture.

"Priority Bonds" means all Bonds designated as Priority Bonds, which, as of the date of issuance of the 2013A Bonds consists of the 1992 Series A Bonds, the 1998 Series A Bonds, the 2005 Bonds, the 2006 Bonds, the 2007 Bonds, the 2008B Bonds, the 2009A Bonds, the 2009B Bonds and the 2010A Bonds.

"Project" means any Improvement or Renewal and Replacement.

"Provider" means any person or entity providing Credit Enhancement, a Reserve Account Credit Facility or a Qualified Hedge Agreement with respect to any one or more Series of Senior Bonds, pursuant to agreement with or upon the request of the Authority.

*"Provider Payment Sub-Account"* means the sub-account of that name in the Debt Service Account established in the Indenture.

"Qualified Hedge Agreement" means a Hedge Agreement if (i) the Provider of the Hedge Agreement is rated "A" or better by Standard & Poor's Rating Group and (ii) the Authority has given each rating agency then rating any of the Senior Bonds (whether or not such rating agency also rates the unsecured obligations of the Provider of the Hedge Agreement or the Provider's guarantor) at least 15 days' notice in writing of its intention to enter into the Hedge Agreement (unless such notice period is waived by such rating agency) and has received from such rating agency its written advice that the entering into of the Hedge Agreement by the Authority will not in and of itself cause a reduction or withdrawal by such rating agency of its Rating on any Senior Bonds. Such written advice shall constitute a waiver by that rating agency of the notice requirement set forth above.

"Rating" means a rating given Senior Bonds by a nationally-recognized rating agency upon the request or application of the Authority, and where the rating of any Senior Bonds is based upon bond insurance or similar credit enhancement, it means the rating which those Senior Bonds would have without that bond insurance or credit enhancement.

"Rating Agency" means Fitch, Moody's and S&P or any other nationally recognized securities rating agency then assigning a Rating to the applicable Series.

"Record Date" means the fifteenth (15<sup>th</sup>) day (whether or not a Business Day) of the month next preceding each Interest Payment Date.

"Redemption Price" means, with respect to any Bond, the principal amount thereof plus the applicable premium, if any, payable upon the date fixed for redemption.

"Redemption Sub-Account" means the sub-account of that name in the Debt Service Account established in the Indenture.

"Refunding Bonds" means all Bonds designated as Refunding Bonds, which as of the date of issuance of the 2013A Bonds consists of the 1996 Series A Bonds, the 1998 Bonds, the 2008A Bonds and the 2010A Bonds.

"Registrar" means the Trustee.

"Renewal and Replacement" means preservation, replacement, repairs, renewals and reconstruction or modifications of the Tollway System or any part of it constituting real or personal property, whether leased or purchased, but does not include System Expansion Projects.

"Renewal and Replacement Account" means the Renewal and Replacement Account established in the Indenture.

"Renewal and Replacement Deposit or Deposits" means, with respect to any period, any amount budgeted for deposit to or projected for deposit to the Renewal and Replacement Account for Renewal and Replacement Expenses, other than such budgeted or projected amounts which the Authority has determined will be available for Renewal and Replacement Expenses from the System Reserve Fund, the Improvement Fund or from the proceeds of authorized borrowings or from installment purchases or leases.

"Renewal and Replacement Expense or Expenses" means the cost of any Renewal and Replacement.

"Reserve Account Credit Facility" means a surety bond, an insurance policy, a letter of credit or other credit facility with respect to any Series of Senior Bonds which meets the requirements of the Indenture.

"Revenues" means (i) all tolls, fees, charges, rents, and other income and receipts derived from the operation of the Tollway System, (ii) the proceeds of any use and occupancy insurance relating to the Tollway System and of any other insurance that insures against loss of revenues, (iii) investment income from any moneys or securities held in Funds, Accounts or Sub-Accounts established under the Indenture, other than the Construction Fund, and (iv) amounts transferred from the Construction Fund to the Revenue Fund, and transfers to the Trustee by the Authority from the System Reserve Account pursuant to the Indenture. Revenues excludes Federal and State grants and appropriations, loan proceeds, gifts or donations of any kind, transfers, if any, to the Authority as permitted under any Escrow Agreement, and receipts not related to the Authority's performance of its obligations under the Indenture or to the operations of the Tollway System.

"S&P" means Standard & Poor's Ratings Services, a division of The McGraw Hill Companies, Inc., a corporation organized and existing under the laws of the State of New York, 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, "S&P" shall be deemed to refer to any other nationally recognized securities rating agency designated by the Authority by notice to the Trustee.

"Second Supplemental Indenture" means the Second Supplemental Indenture securing Toll Highway Refunding Revenue Bonds, 1987 Series, dated as of February 15, 1987, between the Authority and the Trustee.

*"Senior Bonds"* means the Authority's Outstanding Priority Bonds, the Authority's Outstanding Refunding Bonds, and all Additional Senior Bonds, without duplication, issued in accordance with the Indenture.

"Series" means all of the 2013A Bonds designated as a series and authenticated and delivered on original issuance in a simultaneous transaction, and any Bonds thereafter authenticated and delivered in lieu of or in substitution for such Bonds.

*"Seventh Supplemental Indenture"* means the Seventh Supplemental Indenture securing the 2005 Bonds, dated as of June 1, 2005, between the Authority and the Trustee.

"Sinking Fund Installment" means, each principal amount of Senior Bonds scheduled to be retired through the application of amounts on deposit in the Redemption Sub-Account established pursuant to the Indenture.

*"Sixth Supplemental Indenture"* means the Sixth Supplemental Indenture securing the 1998 Series A Bonds and the 1998 Series B Bonds, dated as of December 1, 1998, between the Authority and the Trustee.

"Subordinated Indebtedness" means any evidence of indebtedness, other than Bonds, permitted to be issued by the Indenture for any purpose for which Bonds may be issued thereunder and payable from the System Reserve Account.

"Subsidy Payments" means the cash subsidy payments that may be paid from time to time by the United States Treasury pursuant to Sections 54AA(g) and 6431 of the Code resulting from the elections by the Authority to issue the 2009A Bonds and the 2009B Bonds as "Build America Bonds (Direct Payment)."

"System Expansion Project" means any acquisition, improvement, betterment, enlargement or capital addition that extends the Tollway System.

"System Reserve Account" means the System Reserve Account established in the Indenture.

*"Tenth Supplemental Indenture"* means the Tenth Supplemental Indenture securing the 2008A Bonds, dated as of February 1, 2008, between the Authority and the Trustee.

*"Termination Payment Account"* means the Termination Payment Account established in the Indenture.

*"Third Supplemental Indenture"* means the Third Supplemental Indenture securing the 1992 Series A Bonds, dated as of September 1, 1992, between the Authority and the Trustee.

*"Thirteenth Supplemental Indenture"* means the Thirteenth Supplemental Indenture securing the 2009B Bonds, dated as of December 1, 2009, between the Authority and the Trustee.

"Tollway System" means, collectively, (i) the toll highways operated and maintained by the Authority as of December 1, 1985, (ii) any Projects, and (iii) all properties, equipment and facilities used in connection with the operation and maintenance of the facilities listed in clause (i) or (ii) of this definition.

*"Treasurer"* means the Treasurer of the State of Illinois and *ex officio* custodian of the "Illinois State Toll Highway Authority Fund," a special fund created under the Act, of which all Funds, Accounts, and Sub-Accounts created under the Indenture, including the Revenue Fund and the Construction Fund, are a part.

*"Trustee"* means The Bank of New York Mellon Trust Company, N.A., as successor to The First National Bank of Chicago, currently serving as trustee under the Indenture.

*"Twelfth Supplemental Indenture"* means the Twelfth Supplemental Indenture securing the 2009A Bonds, dated as of May 1, 2009, between the Authority and the Trustee.

"2005 Bonds" means the Toll Highway Senior Priority Revenue Bonds, 2005 Series A, authorized by the Seventh Supplemental Indenture.

"2006 Bonds" means the Toll Highway Senior Priority Revenue Bonds, 2006 Series A-1, and the Toll Highway Senior Priority Revenue Bonds, 2006 Series A-2, authorized by the Eighth Supplemental Indenture.

"2007 Bonds" means the 2007A-1 Bonds and the 2007A-2 Bonds.

"2007A-1 Bonds" means the Toll Highway Variable Rate Senior Priority Revenue Bonds, 2007 Series A-1, authorized by the Ninth Supplemental Indenture.

"2007A-2 Bonds" means the Toll Highway Variable Rate Senior Priority Revenue Bonds, 2007 Series A-2, authorized by the Ninth Supplemental Indenture.

"2008A Bonds" means the 2008A-1 Bonds and the 2008A-2 Bonds.

"2008A-1 Bonds" means the Toll Highway Variable Rate Senior Refunding Revenue Bonds, 2008 Series A-1, authorized by the Tenth Supplemental Indenture.

"2008A-2 Bonds" means the Toll Highway Variable Rate Senior Refunding Revenue Bonds, 2008 Series A-2, authorized by the Tenth Supplemental Indenture.

"2008B Bonds" means the Toll Highway Senior Priority Revenue Bonds, 2008 Series B, authorized by the Eleventh Supplemental Indenture.

"2009A Bonds" means the Toll Highway Senior Priority Revenue Bonds, Taxable 2009 Series A (Build America Bonds – Direct Payment), authorized by the Twelfth Supplemental Indenture.

"2009B Bonds" means the Toll Highway Senior Priority Revenue Bonds, Taxable 2009 Series B (Build America Bonds – Direct Payment), authorized by the Thirteenth Supplemental Indenture.

*"2010A Bonds"* means the Toll Highway Senior Refunding Revenue Bonds, 2010 Series A-1, authorized by the Fourteenth Supplemental Indenture.

"2013A Bonds" means the Toll Highway Senior Priority Revenue Bonds, 2013 Series A, authorized by the Fifteenth Supplemental Indenture.

"*Underwriters*" means the group of underwriters represented by J.P. Morgan Securities LLC and Loop Capital Markets LLC in connection with the purchase of the 2013A Bonds.

#### Pledge and Lien

Pursuant to the Indenture, the Authority pledges for the payment of the principal and Redemption Price of, and interest on, the Senior Bonds (i) the Net Revenues, (ii) amounts on deposit in all Funds, Accounts and Sub-Accounts, except amounts on deposit in or required to be deposited in the Maintenance and Operation Account established by the Indenture and except for amounts held from time to time in any Junior Bond Debt Service Accounts and any Junior Bond Debt Reserve Accounts, in each case established pursuant to the Supplemental Indentures authorizing any Junior Bonds and (iii) any and all other moneys, securities and property held by the Trustee under the terms of the Indenture (except such amounts to be held solely for benefit of Junior Bonds).

The pledge and lien created by the Indenture for Senior Bonds secure Senior Bonds on an equal and ratable basis and are superior in all respects to any pledge and lien created by any Supplemental Indenture for Junior Bonds, except with respect to amounts held from time to time solely for the benefit of Junior Bonds. With respect to amounts held in the Junior Bond Debt Service Account and the Junior Bond Debt Reserve Account, the pledge and lien for Junior Bonds secure Junior Bonds on an equal and ratable basis and are superior in all respects to the pledge and lien created for Senior Bonds. For purposes of the pledge and lien granted by the Indenture, and the requirement for deposits in and use of amounts in the Debt Service Account, "Senior Bonds" may include reimbursing Providers of Credit Enhancement or Qualified Hedge Agreements for Senior Bonds for amounts applied by such Providers to pay such principal of, premium, if any, and interest on Senior Bonds, but amounts in the Debt Service Account shall be so applied only if after such application there is no deficiency in the Debt Service Account.

#### **Flow of Funds**

The Authority covenants to deliver all Revenues (other than investment income, unless otherwise directed by the Indenture, and other than reimbursable advances from particular Funds or Accounts, which may when reimbursed be deposited directly into the Fund or Account from which the advance was made), within five Business Days after receipt, for deposit in the Revenue Fund. On or before the 20th day of each month the Treasurer, at the direction of the Authority, will transfer or apply the balance as of such date of transfer in the Revenue Fund not previously transferred or applied in the following order of priority:

First, to the credit of the Maintenance and Operation Account as follows:

- (1) to the credit of the Operating Sub-Account, that portion of the Operating Expenses set forth in the Annual Budget for the then current Fiscal Year that would have accrued on a pro rata basis to the end of the current calendar month if deemed to accrue monthly on a pro rata basis from the first day of the then current Fiscal Year, less all other amounts previously transferred by the Treasurer for deposit to the credit of the Operating Sub-Account during said Fiscal Year and less the balance, if any, that was on deposit to the credit of the Operating Sub-Account on December 31 of the preceding Fiscal Year, and
- (2) to the credit of the Operating Reserve Sub-Account, the amount, if any, as shall be specified by the Authority; provided, however, that any such amount specified by the Authority shall be reduced by the amount, if any, by which such deposit, if made, when added to the balance on deposit to the credit of the Operating Reserve Sub-Account as of the last day of the immediately preceding month, would exceed 30% of the amount budgeted for Operating Expenses in the Annual Budget for the then current Fiscal Year.

Second, to the credit of the Debt Service Account maintained by the Trustee, as follows:

- and unpaid on Senior Bonds, plus (b) for each Series of Senior Bonds, one-sixth of the difference between the interest payable on Outstanding Senior Bonds of that Series on any interest payment date within the next six months, and the proceeds of Senior Bonds on deposit to the credit of the Interest Sub-Account for paying that interest (provided, however, that for interest payable on any Series of Senior Bonds other than semi-annually or at a variable rate, and for a first interest payment date or as otherwise provided in any Supplemental Indenture for any Series of Senior Bonds, the amount so deposited shall be as provided in the Supplemental Indenture authorizing the Senior Bonds providing for such deposits). For purposes of calculating the periodic transfers required to be made to the Interest Sub-Account with respect to the 2009A Bonds and the 2009B Bonds pursuant to said clause (b), the Treasurer may apply the Subsidy Payments on deposit with the Trustee as a credit against the interest due on the date of deposit of the Subsidy Payments or if none is then due or such interest payment has been fully provided for, against the next interest due on the 2009A Bonds and the 2009B Bonds. Interest payable shall take into account any Qualified Hedge Agreement as provided under the Indenture;
- (2) to the credit of the Principal Sub-Account, an amount equal to (a) any principal due and unpaid on Outstanding Senior Bonds plus (b) for each Series of Senior Bonds, one-twelfth of any principal (including the maturity amount of Capital Appreciation Bonds) of such Outstanding Senior Bonds payable on the next principal payment date within the next twelve months (provided, however, that a Supplemental Indenture authorizing any Series of Senior Bonds which has Principal Installments payable other than annually shall provide for the amounts

to be so deposited, and any Supplemental Indenture authorizing any Series of Senior Bonds may provide for additional deposits in the Principal Sub-Account); and

(3) to the credit of the Redemption Sub-Account, an amount for each Series of Senior Bonds equal to one-twelfth of any Sinking Fund Installment of such Outstanding Senior Bonds of that Series payable within the next twelve months (provided, however, that a Supplemental Indenture authorizing Senior Bonds of a Series which has Sinking Fund Installments payable other than annually shall provide for the amounts to be so deposited, and any Supplemental Indenture authorizing Senior Bonds of a Series may provide for additional deposits in the Redemption Sub-Account).

Third, to the credit of the Provider Payment Sub-Account amounts as provided in any Supplemental Indenture for paying Costs of Credit Enhancement or Qualified Hedge Agreements for Senior Bonds or for making reimbursements to Providers of Credit Enhancement or Qualified Hedge Agreements for Senior Bonds; but no such deposit shall be made for making any termination payment for a Qualified Hedge Agreement when there is any deficiency in the Debt Reserve Account; provided, that, with respect to (a) any Credit Enhancements executed and delivered or becoming effective on or after the effective date of the amendment to the Indenture establishing the Termination Payment Account (June 22, 2005) all termination payments required to be made in connection with any such Credit Enhancements shall be paid from the Termination Payment Account and (b) any Qualified Hedge Agreements executed and delivered or becoming effective on or after the effective date of the amendment to the Indenture establishing the Termination Payment Account (June 22, 2005), all termination payments required to be made in connection with any such Qualified Hedge Agreements shall be paid from the Termination Payment Account.

Fourth, to the credit of the Debt Reserve Account, maintained by the Trustee, an amount sufficient to cause the balance in it to equal the Debt Reserve Requirement and to make any required reimbursement to Providers of Reserve Account Credit Facilities, which reimbursement is payable as provided by a Supplemental Indenture from the Debt Reserve Account.

Fifth, to the credit of any Junior Bond Debt Service Account or Junior Bond Debt Reserve Account, maintained by the Trustee, any amounts required by, and in the priority established by, any Supplemental Indentures authorizing Junior Bonds.

Sixth, to the credit of the Termination Payment Account, an amount sufficient to provide for the payment of termination payments then due and owing with respect to (i) Credit Enhancements and Qualified Hedge Agreements executed and delivered or becoming effective on or after the date of execution and delivery of the Seventh Supplemental Indenture and (ii) credit enhancement and similar agreements and hedge agreements executed and delivered pursuant to any Supplemental Indenture authorizing Junior Bonds.

Seventh, to the credit of the Renewal and Replacement Account, that portion of the Renewal and Replacement Deposit set forth in the Annual Budget for the then current Fiscal Year that would have accrued on a pro rata basis to the end of the current calendar month if deemed to accrue monthly on a pro rata basis from the first day of the then current Fiscal Year, less all other amounts previously transferred by the Treasurer for deposit to the credit of the Renewal and Replacement Account during that Fiscal Year.

Eighth, at the direction of the Authority, to the credit of the Improvement Account, for allocation to a project or projects as determined by the Authority in its sole discretion, until the balance in

such Account is equal to the Improvement Requirement or such lesser amount as the Authority may from time to time determine by resolution.

Ninth, at the direction of the Authority, the balance of such amounts in the Revenue Fund for deposit to the credit of the System Reserve Account.

Any deficiency in the credits required to the various Accounts and Sub-Accounts in any month shall be added to the required credit for the next month.

Funds, Accounts and Sub-Accounts. The Indenture establishes the following Funds and Accounts:

- 1. Revenue Fund, held by Depositaries
- 2. Maintenance and Operation Account held by the Authority
- 3. Debt Service Account held by the Trustee
- 4. Debt Reserve Account held by the Trustee
- 5. Any Junior Bond Debt Service Account held by the Trustee
- 6. Any Junior Bond Debt Reserve Account held by the Trustee
- 7. Termination Payment Account held by the Trustee
- 8. Renewal and Replacement Account held by the Authority
- 9. Improvement Account held by the Authority
- 10. System Reserve Account held by the Authority
- 11. Construction Fund held by the Trustee, including the Move Illinois Program Project Construction Account therein

All moneys deposited under the provisions of the Indenture are required to be deposited with one or more Depositaries, in trust and applied only in accordance with the Indenture.

Certain of the foregoing Accounts and Sub-Accounts are established under the Indenture for the following purposes:

Maintenance and Operation Account — Operating Sub-Account. The Authority is required to pay Operating Expenses from the Operating Sub-Account in accordance with the Authority's Annual Budget.

Maintenance and Operation Account — Operating Reserve Sub-Account. Subject to the requirements of the Authority's Annual Budget, moneys, if any, on deposit to the credit of the Operating Reserve Sub-Account shall be held as a reserve for the payment of Operating Expenses and shall be withdrawn from time to time by the Authority, to the extent that moneys are not available to the credit of the Operating Sub-Account, in order to pay Operating Expenses, as of the last day of such Fiscal Year the Authority shall transfer from the Operating Reserve Sub-Account to the Operating Sub-Account the amount, if any, to the credit of the Operating Revenue Sub-Account in excess of thirty percent of the amount budgeted for Operating Expenses in the Annual Budget for the then current Fiscal Year.

Debt Service Account and Debt Reserve Account. The Indenture establishes the Debt Service Account and Debt Reserve Account for the benefit of the Outstanding Senior Bonds, and any additional Senior Bonds. The Indenture authorizes the establishment of Junior Bond Debt Service Accounts and Debt Reserve Accounts.

Debt Service Account. The Trustee shall pay to the respective Paying Agents in Current Funds (i) out of the Interest Sub-Account on or before each interest payment date for any Senior Bonds,

including the 2013A Bonds, the amount required for the interest payable on such date; (ii) out of the Principal Sub-Account on or before each such interest payment date, an amount equal to the principal amount of the Outstanding Senior Bonds, including the 2013A Bonds, that mature on such date; and (iii) out of the Redemption Sub-Account on or before the day preceding any date fixed for redemption of Outstanding Senior Bonds, including the 2013A Bonds, from Sinking Fund Installments, the amount required for the payment of the Redemption Price of such Senior Bonds then to be redeemed. The Trustee shall also pay out of the Interest Sub-Account the accrued interest included in the purchase price of Senior Bonds purchased for retirement. The Trustee shall, at any time there is a deficiency in credits to the Interest Sub-Account, the Principal Sub-Account and the Redemption Sub-Account, apply amounts in the Provider Payment Sub-Account to remedy those deficiencies, in that order. The Trustee shall pay from the Provider Payment Sub-Account after any payment, as provided in the preceding sentence, has been made, to Providers amounts for paying Costs of Credit Enhancement or costs of Qualified Hedge Agreements for Senior Bonds, or making reimbursement to Providers of Credit Enhancement or Qualified Hedge Agreements, for Senior Bonds, as provided in Supplemental Indentures for Senior Bonds, but only if there is no deficiency in the Interest, Principal or Redemption Sub-Accounts.

Amounts to the credit of the Redemption Sub-Account with respect to Sinking Fund Installments for the 2013A Bonds are required to be applied to the purchase or redemption of Bonds as follows:

- (i) Amounts deposited to the credit of the Redemption Sub-Account to be used in satisfaction of any Sinking Fund Installment for the 2013A Bonds may, and if so directed by the Authority shall, be applied by the Trustee, on or prior to the forty-fifth day preceding the next scheduled Sinking Fund Installment date, to the purchase of Bonds for which such Sinking Fund Installment was established. That portion of the purchase price attributable to accrued interest shall be paid from the Interest Sub-Account. All such purchases of Bonds shall be made at prices not exceeding the applicable Sinking Fund Redemption Price of such Bonds plus accrued interest, and such purchases shall be made in such manner as the Authority shall determine. The principal amount of any Bonds so purchased shall be deemed to be a part of the Redemption Sub-Account until such Sinking Fund Installment date, for the purpose of calculating the amount on deposit in such Sub-Account.
- (ii) At any time up to the forty-fifth day preceding the next scheduled Sinking Fund Installment date, the Authority may purchase with any available funds, which may include amounts in the Improvement Account or the System Reserve Account, Bonds for which such Sinking Fund Installment was established and surrender such Bonds to the Trustee at any time up to such forty-fifth day.
- (iii) To the extent that amounts are available to the credit of the Redemption Sub-Account and the Debt Reserve Account, and after giving effect to the 2013A Bonds purchased by the Trustee and Bonds surrendered by the Authority, which shall be credited against the Sinking Fund Installment for the 2013A Bonds at their applicable sinking fund Redemption Price, and as soon as practicable after the forty-fifth day preceding the next scheduled Sinking Fund Installment date, the Trustee shall proceed to call for redemption on such scheduled Sinking Fund Installment date Bonds for which such Sinking Fund Installment was established (except in the case of Bonds maturing on a Sinking Fund Installment date which shall be retired from payments from the Principal Sub-Account) in such amount as shall be necessary to complete the retirement of the unsatisfied portion of such Sinking Fund Installment. The Trustee shall pay out of the Redemption Sub-Account (after transfers to it from the Debt Reserve Account, if required) to the appropriate Paying Agents, on or before the day preceding such redemption date, the Redemption

Price required for the redemption of the 2013A Bonds so called for redemption, and such amount shall be applied by such Paying Agents to such redemption.

- (iv) If the principal amount of Bonds retired through application of amounts in satisfaction of any Sinking Fund Installment for the 2013A Bonds shall exceed such Sinking Fund Installment for the 2013A Bonds, or in the event of the purchase or redemption from moneys other than from the Redemption Sub-Account of Bonds for which Sinking Fund Installments have been established, such excess or the principal amount of Bonds so purchased or redeemed, as the case may be, shall be credited toward future scheduled Sinking Fund Installments either (i) in the order of their due dates or (ii) in such order as the Authority establishes in a certificate signed by an Authorized Officer and delivered to the Trustee on or prior to the date which is forty-five days after such redemption date.
- (v) Failure to retire the entire scheduled amount of Bonds through the application of any Sinking Fund Installment on or prior to the next scheduled Sinking Fund Installment date shall not be an Event of Default under the Indenture. Any amount of Bonds not so retired shall be added to the amount to be retired on the next scheduled Sinking Fund Installment date for such Bonds. See APPENDIX D "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE Events of Default."

Debt Reserve Account. If on the due date of any interest on any Senior Bonds, including the 2013A Bonds, or any Principal Installment thereof, the aggregate amount to the credit of the Debt Service Account shall be less than the amount required to pay such interest or Principal Installment of any Senior Bonds, the Trustee shall apply amounts from the Debt Reserve Account to the extent necessary to make good the deficiency, in the following order of priority: first, to the credit of the Interest Sub-Account, then to the credit of the Principal Sub-Account and then to the credit of the Redemption Sub-Account.

In lieu of any required deposits into the Debt Reserve Account, the Authority may cause to be deposited into the Debt Reserve Account one or more Reserve Account Credit Facilities in total amounts equal to the difference between the Debt Reserve Requirement and the sums then on deposit to the credit of the Debt Reserve Account, if any. The Provider of the Reserve Account Credit Facility which is a surety bond or insurance policy shall be an insurer whose municipal bond insurance policies insuring the payment, when due, of the principal of and interest on municipal bond issues results in such issues being rated in the highest rating category by S&P and Moody's, or their successors, or any insurer who holds the highest policyholder rating accorded insurers by A.M. Best & Co. or any comparable service; provided that the Authority shall give each rating agency which gives any Bonds a Rating at least 7 days prior written notice before acquiring such a Reserve Account Credit Facility which does not meet the rating requirement of this sentence from S&P and Moody's, or their successors. The Provider of the Reserve Fund Credit Facility which is a letter of credit shall be a bank or trust company or other legal entity which is rated not lower than the second highest rating category by S&P and Moody's, or their successors, and the letter of credit or other credit facility itself shall be rated in the highest category of both such rating agencies. If a disbursement is made pursuant to any Reserve Account Credit Facility, the Authority shall be obligated either (i) to reinstate the maximum limits of such Reserve Account Credit Facility or (ii) to deposit to the credit of the Debt Reserve Account, funds in the amount of the disbursement made under such Reserve Account Credit Facility, or a combination of such alternatives, as shall provide that the amount to the credit of the Debt Reserve Account equals the Debt Reserve Requirement within a time period not longer than would have been required to restore the Debt Reserve Account by operation of the monthly transfer of funds from the Revenue Fund, as applicable.

Whenever the amount to the credit of the Debt Reserve Account shall exceed the Debt Reserve Requirement, after making any required reimbursement to a Provider of a Reserve Account Credit Facility, the Trustee shall use such excess to remedy any deficiency in the Debt Service Account and at the written direction of the Authority promptly transfer such excess to the Authority as further described in **APPENDIX D** – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Flow of Funds"; provided, however, that upon the written direction of the Authority, the Trustee shall promptly transfer all or any portion of the amount of such excess as specified in such direction (i) to a refunding or defeasance escrow established pursuant to the Indenture, or (ii) for any purpose for which Senior Bonds may be issued.

The Trustee shall pay to Providers of Reserve Account Credit Facilities any reimbursement which is payable from the Debt Reserve Account as provided by a Supplemental Indenture, and upon the written direction of an Authorized Officer shall use amounts in the Debt Reserve Account to acquire a Reserve Account Credit Facility, but only to the extent that after such payment the amount to the credit of the Debt Reserve Account, including the amount of any Reserve Account Credit Facilities, either is not less than the Debt Reserve Requirement or is not reduced by the payment or acquisition.

*Junior Bond Accounts*. The Trustee shall apply amounts in the Junior Bond Debt Service Accounts and the Junior Bond Debt Reserve Accounts as required by, and in the priority established by, any Supplemental Indenture authorizing Junior Bonds.

Termination Payment Account. Moneys to the credit of the Termination Payment Account are to be applied at the direction of the Authority to the payment of termination payments with respect to (i) Credit Enhancements and Qualified Swap Agreements and (ii) credit enhancement and similar agreements and hedge agreements executed and delivered pursuant to any Supplemental Indenture authorizing Junior Bonds.

If at any time the amounts to the credit of the Debt Service Account, the Debt Reserve Account, the Improvement Account and the System Reserve Account shall be insufficient to pay the interest and Principal Installments becoming due on the Senior Bonds, the Authority upon notice from the Trustee shall transfer from the Termination Payment Account for deposit to the credit of the Debt Service Account the amount necessary (or the entire available amount to the credit of the Termination Payment Account if less than the amount necessary) to make up such deficiency, in the following order of priority: first, to the credit of the Interest Sub-Account, then to the credit of the Principal Sub-Account, then to the credit of the Redemption Sub-Account and then to the credit of the Provider Payment Sub-Account.

If, at any time after the transfers referred to in the prior paragraph have been made or have been determined by the Trustee to be unnecessary, the amounts to the credit of any debt service account or debt service reserve account established pursuant to a Supplemental Indenture authorizing Junior Bonds, the Improvement Account and the System Reserve Account shall be insufficient to pay the interest and Principal Installments becoming due on any Junior Bonds or to make required payments from any such debt service account, the Authority upon notice from the Trustee shall transfer from the Termination Payment Account to the Trustee for deposit to the credit of such debt service account the amount necessary (or the entire available amount to the credit of the Termination Payment Account if less than the amount necessary) to make up such deficiency in the order or priority specified by the Supplemental Indenture authorizing the related Junior Bonds.

Renewal and Replacement Account. Moneys to the credit of the Renewal and Replacement Account are to be applied to Renewal and Replacement Expenses at the direction of the Authority.

If, at any time the amounts to the credit of the Debt Service Account, the Debt Reserve Account, the Improvement Account, and the System Reserve Account shall be insufficient to pay the interest and Principal Installments becoming due on Senior Bonds, the Authority upon notice from the Trustee shall transfer from the Renewal and Replacement Account and its revolving account to the Trustee for deposit to the credit of the Debt Service Account the amount necessary (or the entire available amount to the credit of the Renewal and Replacement Account and its revolving account if less than the amount necessary) to make up such deficiency, in the following order of priority: first, to the credit of the Interest Sub-Account, then to the credit of the Principal Sub-Account, then to the credit of the Redemption Sub-Account, and then to the credit of the Provider Payment Sub-Account.

*Improvement Account.* Moneys to the credit of the Improvement Account are to be applied to the payment of the costs of Improvements at the direction of the Authority.

If at any time the amounts to the credit of the Debt Service Account, the Debt Reserve Account and the System Reserve Account shall be insufficient to pay the interest and Principal Installments becoming due on the Senior Bonds and to make required payments from the Debt Service Account, the Authority upon notice from the Trustee shall transfer from the Improvement Account and its revolving account to the Trustee for deposit to the credit of the Debt Service Account the amount necessary (or the entire available amount to the credit of the Improvement Account and its revolving account if less than the amount necessary) to make up such deficiency, in the following order of priority: first, to the credit of the Interest Sub-Account, then to the credit of the Principal Sub-Account, then to the credit of the Redemption Sub-Account and then to the credit of the Provider Payment Sub-Account.

The Authority may, from time to time, cause the Consulting Engineers to prepare and file estimates of the cost of the proposed Improvements, and the Authority may adopt resolutions pursuant to such estimates to establish the Improvements Requirement. In the event the cost of any Improvement is increased in accordance with such procedures, the Improvement Requirement with respect to such Improvement shall be increased. In the event the cost of any Improvement is decreased in accordance with such procedures, the Improvement Requirement with respect to such Improvement shall be reduced and any resulting excess to the credit of the Improvement Account shall, at the discretion of the Authority, be promptly credited for the cost of any other Improvement or be promptly transferred to the credit of the System Reserve Account.

Nothing contained in the Indenture shall prohibit the Authority from withdrawing moneys deposited to the credit of the Improvement Account for any Improvement, and depositing such moneys to the credit of an account in the Construction Fund or to the credit of any other fund, account or sub-account maintained for the purposes of paying the cost of such Improvement.

System Reserve Account. The Authority shall transfer to the Trustee, upon requisition by the Trustee, from amounts on deposit to the credit of the System Reserve Account and its revolving account for credit (i) to the various Accounts and Sub-Accounts, and in the order of the priority specified in APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Flow of Funds," the amount necessary (or the entire amount to the credit of the System Reserve Account and its revolving account if less than the amount necessary) to make up any deficiencies in payments to said Accounts and Sub-Accounts required under the Indenture, and (ii) in the event of any transfer of moneys from the Debt Reserve Account, to the credit of the Accounts from which such transfers were made in the order of priority specified in APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Flow of Funds," the amount of any resulting deficiency in such Accounts.

Amounts on deposit to the credit of the System Reserve Account and its revolving account after all required transfers and payments may, in the sole discretion of the Authority, be applied to any one or more of the following purposes:

- (a) to make payments, when due, on Subordinated Indebtedness;
- (b) to provide for the purchase or redemption of any Bonds;
- (c) to make payments into any separate account or accounts established in the Construction Fund for any Project;
- (d) to provide improvements, extensions, betterments, renewals and replacements of the Tollway System, including studies, surveys, estimates and investigations relating thereto, or the provision of reserves for those purposes;
  - (e) to apply as Revenues pursuant to the Indenture;
- (f) to be transferred to any Fund or Account established under the Indenture or any Supplemental Indenture; and
- (g) for any other lawful Authority purpose, including repayment of any other indebtedness incurred by the Authority.

Creation of Additional Accounts and Sub-Accounts. The Trustee or the Treasurer, as the case may be, shall, at the written request of the Authority, establish such additional Accounts within any of the Funds established under the Indenture, and Sub-Accounts within any of the Accounts established under the Indenture, as shall be specified in such written request, for the purpose of enabling the Authority to identify or account for more precisely the sources, timing and amounts of transfers or deposits into such Funds, Accounts and Sub-Accounts, the amounts on deposit in or credited to such Funds, Accounts or Sub-Accounts as of any date or dates of calculation, and the sources, timing and amounts of transfers, disbursements or withdrawals from such Funds, Accounts or Sub-Accounts; but the establishment of any such additional Accounts or Sub-Accounts shall not alter or modify in any manner or to any extent any of the requirements of the Indenture with respect to the deposit or use of moneys in any Fund, Account or Sub-Account established under the Indenture.

Investments of Certain Moneys. All moneys held in any separate, segregated accounts of the Construction Fund held by the Trustee, Debt Service Account and its Sub-Accounts, or the Debt Reserve Account, shall be invested and reinvested to the fullest extent practicable in Investment Securities that mature no later than necessary to provide moneys when needed for payments to be made from such Funds, Accounts or Sub-Accounts, but no moneys in the Debt Reserve Account shall be invested in any Investment Security maturing more than ten (10) years from the date of such investment. Amounts in the Revenue Fund may be invested by the Treasurer, at the direction of the Authority, in Investment Securities maturing not later than necessary to provide moneys when needed for payments from such portion of the Revenue Fund so held by the Authority pursuant to the Indenture. Moneys held in any Junior Bond Debt Service Account or Junior Bond Debt Reserve Account shall be invested and reinvested by the Trustee as provided in the applicable Supplemental Indentures.

Valuation of Investments. Valuation of Investment Securities held in the Funds, Accounts and Sub-Accounts established under the Indenture will be made as often as may be necessary to determine the amounts held under the Indenture, except the valuation of Investment Securities held in the Debt Service Account and its Sub-Accounts, the Debt Reserve Account, any Junior Bond Debt Service

Account and its Sub-Accounts and any Junior Bond Debt Reserve Account shall also be made on December 20 of each year.

Deposits. All moneys on deposit to the credit of the Construction Fund, the Debt Service Account, the Debt Reserve Account, any Junior Bond Debt Service Account and any Junior Bond Debt Reserve Account shall be continuously and fully secured for the benefit of the Authority and the Holders of the 2013A Bonds, by lodging with the Trustee as collateral security, direct obligations of or obligations unconditionally guaranteed by the United States of America having a market value (exclusive of accrued interest) not less than the amount of such moneys. All other moneys held for the Authority under the Indenture shall be continuously and fully secured for the benefit of the Authority and the Holders of the 2013A Bonds as provided by applicable state law with respect to the investment of public funds.

# **Application of Subsidy Payments**

The Authority covenants in the Twelfth Supplemental Indenture and the Thirteenth Supplemental Indenture to deposit or cause to be deposited with the Trustee promptly upon receipt all collections of Subsidy Payments for application to the payment of the next interest due on the 2009A Bonds and the 2009B Bonds. The Authority further covenants that subject to its right to elect to apply collections of the Subsidy Payments to purposes other than the payment of interest, as described below, the Authority will take all actions required by law or applicable regulations as necessary to provide for the collection to the fullest extent possible of the Subsidy Payments and will take no action or fail to take any action which in any way would materially adversely affect the ability of the Authority to collect the Subsidy Payments to the fullest extent possible.

Notwithstanding the covenant described in the preceding paragraph, the Authority may elect to apply collections of the Subsidy Payments to purposes other than the payment of interest with respect to the 2009A Bonds and the 2009B Bonds. If the Authority so elects, the Authority will provide written notice to the Trustee (i) that it will no longer deposit or cause to be deposited with the Trustee some or all of the collections of the Subsidy Payments and (ii) of the first interest payment date with respect to which the Subsidy Payments will not be deposited (the "Payment Termination Date"), which written notice shall be accompanied by the following:

- (i) A certificate of an Authorized Officer demonstrating that the Net Revenues as reflected in the books of the Authority for a period of 12 consecutive calendar months out of the 18 calendar months next preceding the Payment Termination Date exceeded the Net Revenue Requirement for that 12-month period; provided that if any adjustment of toll rates shall have been placed in effect during that 12-month period, Net Revenues shall reflect the Revenues which the Traffic Engineers estimate in their certificate described in paragraph (iii) below would have resulted had such toll rate adjustment been in effect for the entire 12-month period;
- (ii) A certificate of the Traffic Engineers stating whether, to the best of their knowledge, any Federal, State or other agency has begun, or is then projecting or planning, the construction, improvement or acquisition of any highway or other facility which, in the opinion of the Traffic Engineers, may be materially competitive with any part of the Tollway System, and the estimated date of completion of such construction, improvement or acquisition;
- (iii) A certificate of the Traffic Engineers setting forth estimates of toll receipts for the then current and each future Fiscal Year to and including the fifth full Fiscal Year after the Payment Termination Date. The estimates will give effect to (A) the completion as estimated of any Project not yet completed, (B) the assumption that any competitive highway or other facility referred to in their certificate described in subparagraph (ii) above will be completed on the date

so estimated as provided in said subparagraph (ii) and will subsequently be in operation during the period covered by such estimates, (C) any adjustment of toll rates which will have been placed in effect subsequent to the beginning of the 12-month period referred to in the certificate of an Authorized Officer described in paragraph (i), above, as if such toll rate adjustment had been in effect from the beginning of the period covered by such estimate until the effective date of any subsequent adjustment presumed necessary and (D) any adjustment of toll rates which, in the opinion of the Traffic Engineers, would be necessary to comply with the provisions of the toll covenant described under "SECURITY AND SOURCES OF PAYMENT FOR THE 2013A BONDS – Toll Covenant," as if such adjustment were to be in effect from its effective date to the effective date of any other such adjustment;

- (iv) A certificate of the Consulting Engineers setting forth for the years and on the assumptions specified in the certificate of the Traffic Engineers described in paragraph (iii) above, estimates of the Operating Expenses and Renewal and Replacement Deposits; and
- (v) A certificate of an Authorized Officer setting forth the estimated Net Revenues (based on the certificates described in paragraphs (iii) and (iv) above) for the current and each future Fiscal Year through the fifth full Fiscal Year after the Payment Termination Date, and stating that such estimated Net Revenues for each such Fiscal Year equal or exceed the estimated Net Revenue Requirement for such Fiscal Year.

## **Additional Indebtedness**

The Indenture permits the issuance of additional indebtedness, including (a) Senior Bonds on a parity with the Outstanding Senior Bonds, including the 2013A Bonds, (b) Junior Bonds, and (c) Subordinated Indebtedness.

Senior Bonds. Additional Senior Bonds may be incurred for the purposes of (a) paying the Cost of Construction of any Project, (b) refunding or prepaying, including at or prior to maturity any (i) Senior Bonds or (ii) any other obligation of the Authority issued or entered into for purposes for which Senior Bonds may be issued, including paying related costs of issuance, costs of redemption of refunded bonds, capitalized interest, Costs of Credit Enhancement or Costs of Hedge Agreements, (c) making deposits to the Debt Reserve Account or acquiring a Reserve Account Credit Facility, (d) paying interest on any Bonds, (e) paying any costs of issuing Senior Bonds or (f) paying Costs of Credit Enhancement or Costs of Qualified Hedge Agreements for the Additional Senior Bonds. A description of the requirements relating to the incurrence of additional indebtedness follows:

Senior Bonds may be issued on a parity with the Outstanding Senior Bonds, for a Project, provided, among other things that the Authority certifies, based on certificates of the Traffic Engineers and the Consulting Engineers, that (1) Net Revenues as reflected in the books of the Authority for a period of 12 consecutive calendar months out of the 18 calendar months next preceding such issuance (as adjusted to reflect any adjustments of toll rates made during such 12-month period as if such toll rates had been in effect for the entire 12-month period) exceeded the Net Revenue Requirement for such 12-month period; (2) estimated Net Revenues for the current and each future Fiscal Year through the fifth full Fiscal Year after the estimated date when each Project for which Additional Senior Bonds are being issued will be placed in service, and in any case, to and including the fifth full Fiscal Year after the date of issuance of such Additional Senior Bonds, shall be at least equal to the estimated Net Revenue Requirement for such Fiscal Year; and (3) if such Additional Senior Bonds are being issued to pay Costs of Construction of a Project, the amount of the proceeds of the proposed Bonds, which may be issued in one or more Series, together with other funds then available or expected to be available, will be sufficient to pay the remainder of the Cost of Construction of such Project as scheduled. For purposes of estimating Net

Revenues and determining the Net Revenue Requirement, the Authority shall rely on estimates of the Traffic Engineers with respect to toll revenue, which may include projected toll increases deemed feasible by the Traffic Engineers and on estimates of the Consulting Engineers with respect to Operating Expenses, budgeted or projected Renewal and Replacement Deposits and the costs and completion dates of Projects. In addition, the Traffic Engineers are required to certify whether, to the best of their knowledge, any Federal, state or other agency has begun or is then projecting or planning, the construction, improvement or acquisition of any highway or other facility that, in the opinion of the Traffic Engineers, may be materially competitive with any part of the Tollway System and the estimated date of completion of such construction, improvement or acquisition.

One or more series of Senior Bonds may be issued on a parity with the Outstanding Senior Bonds for the purpose of completing a Project for which Senior Bonds were previously issued without meeting the test described above, provided that the Trustee receives a certificate of the Consulting Engineers stating (i) the purpose for which the Additional Bonds are to be issued, which shall be to complete a Project for which Senior Bonds have been issued, without material change in scope, (ii) that the amount of available proceeds of the Additional Bonds issued for the purposes of completing the Project, together with other funds of the Authority then available or expected to be available for completing the Project, including proceeds of one or more other Series of Additional Bonds to be issued for such purpose, will be sufficient, in their opinion, to pay the cost of completion of the Project; and (iii) that the amount of proceeds of such Additional Senior Bonds available for completing the Project will not exceed 10% of the total estimated Costs of Construction as provided in the Certificate of the Consulting Engineer provided for the Additional Senior Bonds previously issued for that Project.

Senior Bonds may be issued on a parity with the Outstanding Senior Bonds for the purpose of refunding Outstanding Senior Bonds (including paying related Costs of Issuance, deposits to the Debt Reserve Account, capitalized interest or Costs of Credit Enhancement or Costs of Qualified Hedge Agreements for the Additional Senior Bonds) without meeting the test described in the second paragraph under the subheading "Senior Bonds" if there is received by the Trustee (i) a Counsel's Opinion that upon issuance of the Additional Senior Bonds and application of their proceeds as provided in the authorizing Supplemental Indenture, provision for payment of the refunded Senior Bonds will have been made in accordance with the defeasance provisions of the Indenture; and (ii) the certificate of an Authorized Officer demonstrating (A) for each Fiscal Year in which any Senior Bonds (other than Additional Senior Bonds to be issued) will be Outstanding after the refunding that the Debt Service for the Additional Senior Bonds to be issued will not be greater than 105% of the Debt Service for the Senior Bonds to be refunded and (B) that the aggregate Principal Installments and interest payable in all those Fiscal Years on the Additional Senior Bonds to be issued is less than the aggregate Principal Installments and interest that would have been payable on the Senior Bonds to be refunded, assuming all Sinking Fund Installments are made as provided in the Supplemental Indentures for Senior Bonds.

Junior Bonds. One or more Series of Junior Bonds may be issued as authorized by the Authority by a Supplemental Indenture for any purpose for which Senior Bonds may be issued. Any such Supplemental Indenture shall make provision for the establishment of any Junior Bond Debt Service Account or Accounts and any Junior Bond Debt Reserve Account with respect to any or all Series of Junior Bonds and for the amounts of Net Revenues to be deposited in such Accounts. Any such Supplemental Indenture may grant a lien on and pledge for the payment of principal of and interest on Junior Bonds or reimbursing Providers of Credit Enhancement or Hedge Accounts for Junior Bonds for amounts applied by such Provider to pay such principal or interest, of the (i) Net Revenues to be deposited in any Junior Bond Debt Service Account or Junior Bond Debt Reserve Account, (ii) amounts on deposit from time to time in Junior Bond Debt Service Accounts and Junior Bond Debt Reserve Account, the Improvement Account and the System Reserve Account and (iv) any other funds, accounts, property or

receipts other than Revenues or Funds or Accounts established by the Indenture or a Supplemental Indenture solely for the benefit of Senior Bonds. Any such pledge or lien on Net Revenues and the amounts on deposit from time to time in the Renewal and Replacement Account, the Improvement Account and the System Reserve Account shall be subordinate to the pledge and lien made and granted by the Indenture for Senior Bonds. A Supplemental Indenture providing for the issuance of any Series of Junior Bonds may provide for "events of default" with respect to such Junior Bonds and remedies arising from such "events of default." Such a remedy may include acceleration of the maturity of any Junior Bonds, but only upon not less than sixty days' written notice to the Trustee. No remedy shall be contrary to the rights or remedies provided to Holders of Senior Bonds under the Indenture.

Subordinated Indebtedness. Subordinated Indebtedness may be issued for any purpose for which Bonds may be issued, which Subordinated Indebtedness may be payable, pursuant to the authorizing instrument, from amounts on deposit in, and secured by a pledge of and lien on amounts payable from, the System Reserve Account.

Other Indebtedness. Other indebtedness issued for any lawful Authority purpose may be payable, pursuant to the authorizing instrument, from amounts on deposit in the System Reserve Account. The Authority may also issue evidences of indebtedness payable from moneys in the Construction Fund as part of the Cost of Construction for any Project, or payable from, or secured by the pledge of, Revenues to be derived on and after such date as the pledge of Net Revenues provided in the Indenture shall be discharged and satisfied. The Authority reserves the right to issue bonds or other evidences of indebtedness for any purpose payable from or secured by funds or sources other than Revenues or moneys on deposit with the Trustee or the Authority under the Indenture.

# **Hedging Transactions**

If the Authority shall enter into any Qualified Hedge Agreement with respect to any Senior Bonds and the Authority has made a determination that the Qualified Hedge Agreement was entered into to provide substitute amounts or limits of the interest due with respect to those Senior Bonds, then during the term of the Qualified Hedge Agreement and so long as the Provider of the Qualified Hedge Agreement is not in default:

- (a) for purposes of any calculation of Debt Service, the interest rate on the Senior Bonds with respect to which the Qualified Hedge Agreement applies shall be determined as if such Senior Bonds had interest payments equal to the interest payable on those Senior Bonds less any payments to the Authority from the Provider and plus any payments by the Authority to the Provider as provided by the Qualified Hedge Agreement (other than fees or termination payments of such Provider for providing the Qualified Hedge Agreement);
- (b) any such payments (other than fees and termination payments) required to be made by the Authority to the Provider pursuant to such Qualified Hedge Agreement may be made from amounts on deposit to the credit of the Interest Sub-Account; and
- (c) any such payments received by the Authority from the Provider pursuant to such Qualified Hedge Agreement shall be deposited to the credit of the Interest Sub-Account.

If the Authority shall enter into a Hedge Agreement that is not a Qualified Hedge Agreement, then:

(a) the interest rate adjustments or assumptions referred to above shall not be made;

- (b) any payments required to be made by the Authority to the Provider pursuant to such Hedge Agreement shall be made only from amounts on deposit to the credit of the System Reserve Account; and
- (c) any payments received by the Authority from the Provider pursuant to such Hedge Agreement shall be treated as Revenues and shall be deposited to the credit of the Revenue Fund.

# **Removal or Merger or Consolidation of Trustee**

The Trustee may be removed at any time by an instrument in writing delivered to the Trustee and signed by the Authority and the Treasurer; provided, however, that if an Event of Default shall have occurred and be continuing, the Trustee may be so removed by the Authority and the Treasurer only with the written concurrence of the Holders of a majority in principal amount of Senior Bonds and the Holders of a majority in principal amount of Junior Bonds then Outstanding.

Any company into which the Trustee 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 all or substantially all of the corporate trust business of the Trustee may be sold or transferred shall be the successor to the Trustee without the execution or filing of any paper or the performance of any further act, unless such successor delivers written notice of resignation pursuant to the terms of the Indenture.

#### **Covenants**

Sale, Lease or Encumbrance of Property. The Authority will not sell, lease or otherwise dispose of or encumber the Tollway System or any part thereof and will not create or permit to be created any charge or lien on the Revenues, except as permitted under the Indenture, and, in certain instances generally relating to utilities and concessions, unless the Authority determines that such sale, lease, contract, license, easement or right does not impede or restrict the operation by the Authority of the Tollway System. The Authority may from time to time sell, exchange or otherwise dispose of any real or personal property or release, relinquish or extinguish any interest therein as the Authority shall determine is not needed in connection with the maintenance and operation of the Tollway System and, in the case of real property or any interest therein, will not in the future be needed for any foreseeable improvement to the Tollway System.

Notwithstanding the provisions of the preceding paragraph, upon receipt of consent of the Holders of Bonds as described under "Supplemental Indentures" in this APPENDIX D and under "SECURITY AND SOURCES OF PAYMENT FOR THE 2013A BONDS – Certain Amendments to the Indenture – Amendment Requiring Bondholder Consent," to the extent permitted by law, the Authority may sell, lease, convey, mortgage, encumber or otherwise dispose, directly or indirectly, all or a portion of the Tollway System or transfer, directly or indirectly, control, management or oversight, or any material aspect of control, management or oversight of the Tollway System, whether of its properties, interests, operations, expenditures, revenues or otherwise (any of the foregoing being referred to as a "Transfer"). Any Transfer may be part of a transaction in which the Authority enters into a leaseback or other agreement that directly or indirectly gives the Authority a right to control, manage, use and possess the Tollway System.

In connection with any Transfer, the Authority must provide to the Trustee the following:

- (i) a certified copy of a resolution of the Authority authorizing and approving the Transfer;
- (ii) evidence that the Transfer will not adversely affect the rating on any Bonds Outstanding immediately prior to the Transfer issued by a rating agency then maintaining a rating on such Bonds;
- (iii) an opinion of nationally recognized bond counsel selected by the Authority to the effect that the Transfer (i) complies with the provisions of the Act and the Indenture and (ii) will not cause interest on any Senior Bonds or Junior Bonds Outstanding immediately prior to the Transfer or on any Subordinated Indebtedness to become subject to Federal income taxation;
- (iv) a Certificate of the Traffic Engineers (A) stating whether, to the best of their knowledge, any Federal, State or other agency is then projecting or planning the construction, improvement, or acquisition of any highway or other facility which, in the opinion of the Traffic Engineers, may be materially competitive with the Tollway System as constituted following the Transfer (the Tollway System as constituted following the Transfer being referred to as the "Remaining Tollway System") and the estimated date of completion of such highway or other facility, and (B) setting forth estimates of toll receipts derived from the Remaining Tollway System for the then current and each of the next ten (10) Fiscal Years or to and including the latest maturity of the 2013A Bonds, whichever is first to occur, giving effect, with respect to the Remaining Tollway System, to the factors considered by the Traffic Engineers in delivering their certificates described above under "Additional Indebtedness Senior Bonds";
- (v) a Certificate of the Consulting Engineers setting forth, for the years and on the assumptions specified in the Certificate of the Traffic Engineers delivered pursuant to clause (iv) above, estimates of Operating Expenses and the Renewal and Replacement Deposits for the Remaining Tollway System, giving effect, with respect to the Remaining Tollway System, to the factors considered by the Consulting Engineers in delivering their certificate described above under "Additional Indebtedness Senior Bonds"; and
- a Certificate of any Authorized Officer setting forth (i) the Aggregate Debt (vi) Service and the Junior Bond Revenue Requirement (excluding, in each case, bond interest, the payment of which shall have been provided by payments or deposits from Bond proceeds) allocable to the Remaining Tollway System (determined as described below, the Aggregate Debt Service and the Junior Bond Revenue Requirement for each Fiscal Year so allocated being referred to as the "Remaining Tollway System Debt Service") for the next preceding eighteen months, (ii) the Remaining Tollway System Debt Service for the then current and each of the next ten Fiscal Years or to and including the latest maturity of the 2013A Bonds, whichever is first to occur and (iv) the Net Revenues allocable to the Remaining Tollway System (determined as described below, the Net Revenues so allocated being referred to as the "Remaining Tollway System Net Revenues") for the next preceding eighteen months; and stating (a) that Remaining Tollway System Net Revenues have equaled at least one and one-half (1.5) times the Remaining Tollway System Debt Service for any twelve (12) consecutive months of the preceding eighteen (18) months, (b) that the Remaining Tollway System Net Revenues (based on the certificates filed pursuant to clauses (iv) and (v) above) for the then current and each of the next ten Fiscal Years or to and including the latest maturity of the 2013A Bonds, whichever is first to occur, will be not less than the greater of (I) one and one-half (1.5) times the Remaining Tollway System Debt Service for each such Fiscal Year and (II) the sum of the Remaining Tollway System Debt

Service and the Renewal and Replacement Deposit for each such Fiscal Year, (c) that the Authority is not in default in the performance of any of the covenants, conditions, agreements or provisions contained in the 2013A Bonds or the Indenture and (d) that the amount in the Debt Reserve Account is at least equal to the Debt Reserve Requirement and the amount in any Junior Bonds is at least equal to any requirement for such Account established by the related Supplemental Indenture.

The determination of the Remaining Tollway System Debt Service and the Remaining Tollway System Net Revenues shall be made (i) to the extent determinable, by reference to the actual financial records of the Authority showing (A) Net Revenues generated by the Remaining Tollway System and (B) the Remaining Tollway Debt Service allocable to the Remaining Tollway System, or (ii) if not so determinable, by any reasonable methodology generally incorporating the assumptions of the Traffic Engineers and Consulting Engineers described above. Such determinations may be based, without limitation, by a pro rata method based on such financial results.

All proceeds received by the Authority in connection with a Transfer may be applied by the Authority to any lawful purpose designated by resolution of the Authority.

Annual Budget. The Authority is required to prepare and adopt on or before January 31 of each Fiscal Year the Annual Budget for such Fiscal Year. The Authority may at any time adopt an amended Annual Budget for the remainder of the then current Fiscal Year. Copies of the Annual Budget and of any amended Annual Budget shall be promptly filed with the Trustee, for inspection by Bondholders

Operation and Maintenance of the Tollway System. The Authority covenants at all times to operate or cause to be operated the Tollway System properly and in a sound and economical manner and to maintain, preserve, reconstruct and keep the Tollway System or cause the Tollway System to be so maintained, preserved, reconstructed so that at all times the operation of the Tollway System may be properly and advantageously conducted.

Maintenance of Insurance. The Authority is required to maintain, to the extent reasonably obtainable, the following kinds of insurance in amounts recommended by the Consulting Engineers or determined by the Authority: multi-risk insurance on the facilities of the Tollway System; use and occupancy insurance covering loss of Revenues by reason of necessary interruption, total or partial, in the use of facilities of the Tollway System; public liability insurance covering injuries to persons or property; during the construction or reconstruction of any portion of the facilities of the Tollway System, such insurance as is customarily carried by others with respect to similar structures used for similar purposes, provided that the Authority shall not be required to maintain any such insurance to the extent that such insurance is carried for the benefit of the Authority by contractors.

The Authority, with the approval of the Consulting Engineers, may adopt self insurance programs in lieu of maintaining any of the foregoing types of insurance. Each self insurance program shall include an actuarially sound reserve fund, if any, as recommended by the Consulting Engineers, out of which claims are to be paid. The adequacy of such fund shall be evaluated not later than ninety (90) days after the end of each insurance year. Deficiencies in any such reserve fund shall be made up in accordance with the recommendations of the Consulting Engineers. In the event a self insurance program is discontinued, the actuarial soundness of any related reserve fund, if any, as recommended by the Consulting Engineers, shall be maintained. With respect to any workers' compensation self insurance program, any such reserve fund shall be held as required by law.

### **Events of Default**

Each of the following events constitutes an "Event of Default" with respect to Senior Bonds under the Indenture:

- (1) default in the due and punctual payment of the principal or Redemption Price of any Senior Bond, when and as the same shall become due and payable, whether at maturity or by call for redemption, or otherwise; provided, however, that the failure to retire the entire scheduled amount of Bonds through the application of any Sinking Fund Installment shall not constitute an Event of Default;
- (2) default in the due and punctual payment of interest on any Senior Bond, when and as such interest shall become due and payable;
- (3) default in the performance or observance by the Authority of the toll covenant (see "SECURITY AND SOURCES OF PAYMENT FOR THE 2013A BONDS Toll Covenant");
- (4) receipt of a written declaration of an Event of Default by Holders of not less than 10% of the principal amount of the Senior Bonds (or at least 50% of the principal amount of any Series of Senior Bonds) upon receipt of the Trustee of a notice of the acceleration of the maturity of any Junior Bonds as provided in the Indenture;
- (5) default in the performance or observance by the Authority of any other of the covenants, agreements or conditions in the Indenture or in any Bonds, and such default shall continue for a period of sixty (60) days after written notice thereof to the Authority by the Trustee or to the Authority and to the Trustee by the Holders of not less than 20% in principal amount of the Senior Bonds Outstanding;
- (6) if the Authority shall file a petition seeking a composition of indebtedness under the Federal bankruptcy laws, or under any other applicable law or statute of the United States of America or of the State of Illinois:
- (7) if any part of the Tollway System shall be damaged or destroyed to the extent of impairing its efficient operation and materially and adversely affecting the Revenues, and the Authority shall not have taken reasonable steps to promptly repair, replace, reconstruct or provide a reasonable substitute for the damaged or destroyed part of the Tollway System; or
- (8) if an order or decree shall be entered, with the consent or acquiescence of the Authority, appointing a receiver or receivers of the Tollway System, or any part thereof, or of the tolls or other revenues therefrom; or if such order or decree entered without the consent or acquiescence of the Authority shall not be vacated or stayed within ninety (90) days after the entry thereof.

If an Event of Default occurs and is not remedied, unless the principal of all Senior Bonds shall have already become due and payable, either the Trustee (by notice in writing to the Authority) or the Holders of not less than a majority in aggregate principal amount of the Senior Bonds Outstanding (by notice in writing to the Authority and the Trustee), may declare the principal of all the Senior Bonds then Outstanding, and the interest accrued on them, to be due and payable immediately.

Application of Revenues and Other Moneys After Default. If an Event of Default shall happen and shall not have been remedied, the Authority, upon demand of the Trustee, shall pay over or cause to be paid over to the Trustee (i) forthwith, all moneys, securities and funds then held by the Authority in any Fund, Account, Sub-Account or revolving fund pursuant to the terms of the Indenture, and (ii) all Revenues as promptly as practicable after receipt thereof.

During the continuance of an Event of Default, the Trustee shall apply such moneys, securities, funds and Revenues and the income therefrom as follows and in the following order: (1) to the payment of the reasonable and proper charges and expenses of the Trustee; (2) to the payment of the amounts required for reasonable and necessary Operating Expenses and for the reasonable renewals, repairs and replacements of the Tollway System necessary to prevent loss of Revenues; (3) to the payment of the principal of, Redemption Price, and interest on the 2013A Bonds then due in the priority set forth in the Indenture. If the principal of all the Senior Bonds shall have been declared due and payable, the Trustee shall apply available sources of payment first to the ratable payment of the principal and interest then due and unpaid upon the Senior Bonds, and second to the ratable payment of the principal and interest then due and unpaid upon the Junior Bonds.

Proceedings Brought by Trustee. If an Event of Default shall happen and shall not have been remedied, then the Trustee may proceed, and upon written request of the Holders of not less than 20% in principal amount of Senior Bonds Outstanding, shall proceed to protect and enforce its rights and the rights of the Holders of the 2013A Bonds under the Indenture as the Trustee shall deem most effectual to enforce any of its rights or to perform any of its duties under the Indenture.

The Holders of not less than a majority in principal amount of Senior Bonds at the time Outstanding may direct the time, method and place of conducting any proceedings to be taken in connection with the enforcement of the terms and conditions of the Indenture or for the enforcement of any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, provided that the Trustee shall have the right to decline to follow any such direction if the Trustee shall be advised by counsel that the action or proceeding so directed may not lawfully be taken, or if the Trustee in good faith shall determine that the action or proceeding so directed would involve the Trustee in personal liability or be unjustly prejudicial to the Bondholders not parties to such direction.

Regardless of the happening of an Event of Default, the Trustee shall have the power, but unless requested in writing by the Holders of a majority in principal amount of the Senior Bonds then Outstanding, and furnished with reasonable security and indemnity, shall be under no obligation, to institute and maintain such suits and proceedings as may be necessary or expedient to prevent any impairment of the security under the Indenture and to preserve or protect its interests and the interests of the Bondholders.

Notwithstanding any provision of the Indenture, the Act provides that owners of any bonds issued by the Authority may bring civil actions to compel the observance by the Authority or by any of its officers, agents, or employees of any contract or covenant made by the Authority with the owner of such bonds. Further, the Act permits, notwithstanding any provision of the Indenture, owners of any bonds to bring civil actions to compel the Authority and any of its officers, agents or employees, to perform any duties required to be performed for the benefit of the owners of such bonds by the provisions of the resolution authorizing their issuance, or by the Act or to enjoin the Authority and any of its officers, agents or employees from taking any action in conflict with such contract or covenant.

# **Supplemental Indentures**

The Authority and the Trustee may without the consent of, or notice to, any of the Bondholders, enter into Supplemental Indentures not inconsistent with the terms and provisions of the Indenture for any one or more of the following purposes: (1) to authorize Senior Bonds or Junior Bonds; (2) to close the Indenture against, or impose additional limitations or restrictions on the issuance of Bonds or other notes, bonds, obligations or other evidences of indebtedness; (3) to impose additional covenants or agreements to be observed by or to impose other limitations or restrictions on the Authority; (4) to surrender any right, power or privilege reserved to or conferred upon the Authority by the Indenture; (5) to confirm, as further assurance, any pledge of or lien upon the Revenues or any other moneys, securities or funds; (6) to cure any ambiguity, omission or defect in the Indenture; (7) to provide for the appointment of a successor Fiduciary; and (8) to make any other change that, in the judgment of the Trustee, is not to the prejudice of the Trustee or the Bondholders.

Except for Supplemental Indentures described in the preceding paragraph, any modification or amendment of the Indenture and of the rights and obligations of the Authority and of the Holders of the 2013A Bonds thereunder may be made with the written consent of the Holders of at least a majority in principal amount of Senior Bonds and of the Holders of at least a majority in principal amount of the Junior Bonds Outstanding at the time such consent is given. No such modification or amendment shall permit a change in the terms of redemption or maturity of the principal of any Outstanding Bonds, or of any installment of interest thereon or a reduction in the principal amount or the Redemption Price thereof or in the rate of interest thereon without the consent of the Holder of such Bond, or shall reduce the percentages or otherwise affect the classes of Bonds the consent of the Holders of which is required to effect any such modification or amendment, or shall change or modify any of the rights or obligations of any Fiduciary without its written assent thereto.

Notwithstanding any other provision of the Indenture, in issuing any Bonds the Authority may consent to any modification or amendment to the Indenture that may be adopted by consent of the required percentage of Holders of Bonds. That consent shall, upon the issuance of those Bonds, constitute the irrevocable consent of the Holders of those Bonds.

#### **Defeasance**

If the Authority shall pay or cause to be paid or there shall otherwise be paid, to the Holders of all Bonds the principal or Redemption Price, if applicable, and interest due or to become due thereon, at the times and in the manner stipulated therein and in the Indenture, then the Indenture and all covenants, agreements and other obligations of the Authority to the Bondholders, shall thereupon be discharged and satisfied.

Bonds or interest installments for the payment or redemption of which moneys shall have been set aside and held in trust by the escrow agent at or prior to their maturity or redemption date shall be deemed to have been paid if the Authority shall have delivered to or deposited with the escrow agent (a) irrevocable instructions to pay or redeem all of said Bonds, (b) irrevocable instructions to publish or mail the required notice of redemption of any Bonds so to be redeemed, and (c) either moneys in an amount that shall be sufficient or direct obligations of or obligations unconditionally guaranteed by the United States of America the principal of and the interest on which when due will provide moneys that, together with the moneys, if any, deposited with the Trustee at the same time, shall be sufficient, to pay when due the principal or Redemption Price, if applicable, and interest due and to become due on said Bonds on and prior to each specified redemption date or maturity date thereof, as the case may be.

# **Fifteenth Supplemental Indenture**

The 2013A Bonds are authorized and issued pursuant to the Fifteenth Supplemental Indenture and the Indenture. The terms of the 2013A Bonds are generally described in this Official Statement under the caption "DESCRIPTION OF THE 2013A BONDS." The proceeds of the 2013A Bonds are required by the Fifteenth Supplemental Indenture to be used for the purposes described in this Official Statement under the caption "ESTIMATED SOURCES AND APPLICATIONS OF FUNDS." The Fifteenth Supplemental Indenture contains certain amendments to the Indenture that will become effective upon execution of the Fifteenth Supplemental Indenture and receipt by the Authority of consent from the Trustee and certain Providers, but without consent of Bondholders. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2013A BONDS – Certain Amendments to the Indenture – Amendments Without Bondholder Consent."

### **APPENDIX E**

### **BOOK-ENTRY SYSTEM**

The Depository Trust Company ("DTC"), New York, New York, will act as securities depository for the 2013A Bonds. The 2013A 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 Bond certificate will be issued for each maturity of the 2013A Bonds, each in the aggregate principal amount of each such maturity, 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 DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts, 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 a Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the 2013A Bonds on DTC's records. The ownership interest of each actual purchaser of each 2013A Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the 2013A Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Bonds, except in the event that use of the book-entry system for the 2013A Bonds is discontinued.

To facilitate subsequent transfers, all 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 Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the 2013A Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such 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 2013A Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the 2013A Bonds, such as redemptions, tenders, defaults, and proposed amendments to the security documents. For example, Beneficial Owners may wish to ascertain that the nominee holding the 2013A Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the 2013A Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the 2013A 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 2013A Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on the 2013A Bonds will be made to Cede & Co. or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from Authority or the Trustee, on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Trustee or the Authority, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Authority or the Trustee, 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.

DTC may discontinue providing its services as depository with respect to the 2013A Bonds at any time by giving reasonable notice to the Authority or the Trustee. Under such circumstances, in the event a successor depository is not obtained, Bond certificates are required to be printed and delivered.

The foregoing information in this section concerning DTC and DTC's book-entry system has been obtained from DTC and neither the Authority nor the Underwriters take any responsibility for the accuracy of such information.

Neither the Authority nor any Fiduciary will have any responsibility or obligation to DTC, any Participants in the Book-Entry System or the Beneficial Owners with respect to (i) the accuracy of any records maintained by DTC or any Participant; (ii) the payment by DTC or by any Participant of any amount due to any Beneficial Owner in respect of the principal amount or redemption or purchase

price of, or interest on, any Bonds; (iii) the delivery of any notice by DTC or any Participant; (iv) the selection of the Beneficial Owners to receive payment in the event of any partial redemption of the 2013A Bonds; or (v) any other action taken by DTC or any Participant.

In reading this Official Statement it should be understood that while the 2013A Bonds are in the Book-Entry System, references in this Official Statement to registered owners should be read to include the Beneficial Owner, but (a) all rights of ownership must be exercised through DTC and the Book-Entry System and (b) notices that are to be given to registered owners by the Authority or the Trustee will be given only to DTC.



### **APPENDIX F**

### FORM OF OPINION OF BOND COUNSEL

## [Date of Issuance of 2013A Bonds]

We hereby certify that we have examined certified copy of the proceedings (the "*Proceedings*") of The Illinois State Toll Highway Authority (the "*Authority*") passed preliminary to the issue by the Authority of its fully registered Toll Highway Senior Revenue Bonds, 2013 Series A, dated the date hereof, in the aggregate principal amount of \$500,000,000 (the "*Series 2013A Bonds*"). The Series 2013A Bonds mature on January 1 of the years and in the amounts and bear interest at the respective rates percent per annum as follows:

YEAR	AMOUNT	INTEREST RATE
2027	\$ 13,605,000	5.00%
2028	14,285,000	5.00
2029	15,000,000	5.00
2030	15,745,000	5.00
2031	16,535,000	5.00
2032	17,360,000	5.00
2033	18,230,000	5.00
2034	19,140,000	5.00
2035	20,100,000	5.00
2038	350,000,000	5.00

Each of the Series 2013A Bonds bears interest (computed on the basis of a 360-day year composed of twelve 30-day months) from its date until paid, such interest being payable semiannually on January 1 and July 1 of each year, commencing on January 1, 2014.

The Series 2013A Bonds are being issued pursuant to an Amended and Restated Trust Indenture effective March 31, 1999, amending and restating a Trust Indenture dated as of December 1, 1985 (the "Amended and Restated Indenture"), between the Authority and The Bank of New York Mellon Trust Company, N.A., as successor to J.P. Morgan Trust Company, N.A. and The First National Bank of Chicago, as trustee (the "Trustee"), and a Fifteenth Supplemental Indenture Providing For Toll Highway Senior Revenue Bonds, 2013 Series A, dated as of May 1, 2013 (the "Fifteenth Supplemental Indenture" and collectively with the Amended and Restated Indenture, as supplemented and amended to the date hereof, being referred to herein as the "Indenture.") The Series 2013A Bonds are issued as Senior Bonds pursuant to the Toll Highway Act of the State of Illinois, as amended (the "Act"), a resolution adopted by the Authority on December 13, 2012 (the "Bond Resolution") and the Indenture. Capitalized terms used herein without definition shall have the meanings assigned to such terms in the Fifteenth Supplemental Indenture.

Subject to the terms and conditions set forth in the Fifteenth Supplemental Indenture, the Series 2013A Bonds are subject to optional redemption and sinking fund redemption pursuant to Sinking Fund Installments prior to maturity.

The Series 2013A Bonds are issued for the purpose of (i) paying costs of the Move Illinois Program Project, (ii) funding a deposit to the Debt Reserve Account and (iii) paying costs related to the issuance of the Series 2013A Bonds.

In our capacity as bond counsel, we have examined, among other things, the following:

- (a) a certified copy of the proceedings of the Authority adopting the Bond Resolution and authorizing, among other things, the execution and delivery of the Fifteenth Supplemental Indenture and the issuance of the Series 2013A Bonds;
  - (b) a certified copy of the Bond Resolution;
  - (c) an executed counterpart of the Indenture; and
- (d) such other certifications, documents, showings and related matters of law as we have deemed necessary in order to render this opinion.

Based upon the foregoing we are of the opinion that:

- 1. The Authority has full power and authority and has taken all necessary corporate action to authorize the execution and delivery of the Fifteenth Supplemental Indenture and the issuance of the Series 2013A Bonds.
- 2. The Indenture, including the Fifteenth Supplemental Indenture, has been duly and lawfully executed and delivered by the Authority and, assuming the due authorization, execution and delivery by, and the binding effect on, the Trustee, the Indenture is valid and legally binding upon the Authority and enforceable in accordance with its terms.
- 3. The Indenture creates the valid pledge and lien which it purports to create on and in the Revenues, Funds, Accounts and moneys, securities and properties held or set aside under the Indenture, subject to the application thereof to the purposes and on the conditions permitted by the Indenture.
- 4. The Proceedings show lawful authority for the issuance of the Series 2013A Bonds under the laws of the State of Illinois now in force and the Series 2013A Bonds, to the amount named, are valid and legally binding obligations of the Authority, enforceable in accordance with their terms and the terms of the Indenture and are entitled to the benefits of the Indenture.
- 5. The form of Series 2013A Bond prescribed for said issue by the Fifteenth Supplemental Indenture is in due form of law.
- 6. The Series 2013A Bonds are payable ratably and equally together with all Senior Bonds, as heretofore and as may hereafter be issued, solely and only from and secured by a pledge of and lien on Net Revenues of the Tollway System and amounts on deposit in certain Funds, Accounts and Sub-Accounts established under the Indenture. The Series 2013A Bonds do not represent or constitute debt of the Authority or of the State of Illinois within the meaning of any constitutional or statutory limitation or pledge of the faith and credit of the Authority or the State of Illinois nor grant the owners thereof any

right to have the Authority or the State of Illinois levy any taxes or appropriate any funds for the payment of the principal of, premium, if any, or interest on the Series 2013A Bonds.

- 7. Subject to compliance by the Authority with certain covenants, under present law, interest on the Series 2013A Bonds is excludable from gross income of the owners thereof for federal income tax purposes and is not included as an item of tax preference in computing the alternative minimum tax for individuals and corporations under the Internal Revenue Code of 1986, as amended, but is taken into account in computing an adjustment used in determining the federal alternative minimum tax for certain corporations. Failure to comply with certain of such Authority covenants could cause interest on the Series 2013A Bonds to be includible in gross income for federal income tax purposes retroactively to the date of issuance of the Series 2013A Bonds. Ownership of the Series 2013A Bonds may result in other federal tax consequences to certain taxpayers, and we express no opinion regarding any such collateral consequences arising with respect to the Series 2013A Bonds.
- 8. Interest on the Series 2013A Bonds is not exempt from income taxes imposed by the State of Illinois.

The rights of the registered owners of the Series 2013A Bonds and the enforceability of provisions of the Series 2013A Bonds and the Indenture may be subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights. Enforcement of provisions of the Series 2013A Bonds and the Indenture by an equitable or similar remedy is subject to general principles of law or equity governing such a remedy, including the exercise of judicial discretion whether to grant any particular form of relief.

We express no opinion herein as to the accuracy, adequacy or completeness of the Official Statement relating to the Series 2013A Bonds.

In rendering this opinion, we have relied upon certifications of the Authority with respect to certain material facts within the Authority's knowledge. Our opinion represents our legal judgment based upon our review of the law and the facts that we deem relevant to render such opinion and is not a guarantee of a result. This opinion is given as of the date hereof and we assume no obligation to revise or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention or any changes that may hereafter occur.









