

All Electronic Tolling August 23, 2016

AET Legislative Conference Call

Why is MassDOT implementing All-Electronic Tolling?



- MassDOT decided in 2012 to replace tolls on the Massachusetts Turnpike, Tobin Bridge and airport tunnels with All-Electronic Tolling (AET) in order to provide highway users with a better and safer driving experience. AET will improve safety, reduce congestion, and reduce air pollution by removing toll booths and allowing customers to move at highway speeds.
- Safety
 - According to the National Transportation Safety Board, “Toll authorities nationwide experience rear-end collision rates that exceed other types of collisions, in part because toll plazas interrupt the flow of high-speed traffic to intermittently collect tolls.”
 - For example, the crash rate for the Weston toll plaza is about 60% higher than the adjacent mainline section.

Benefits of All Electronic Tolling (cont'd)



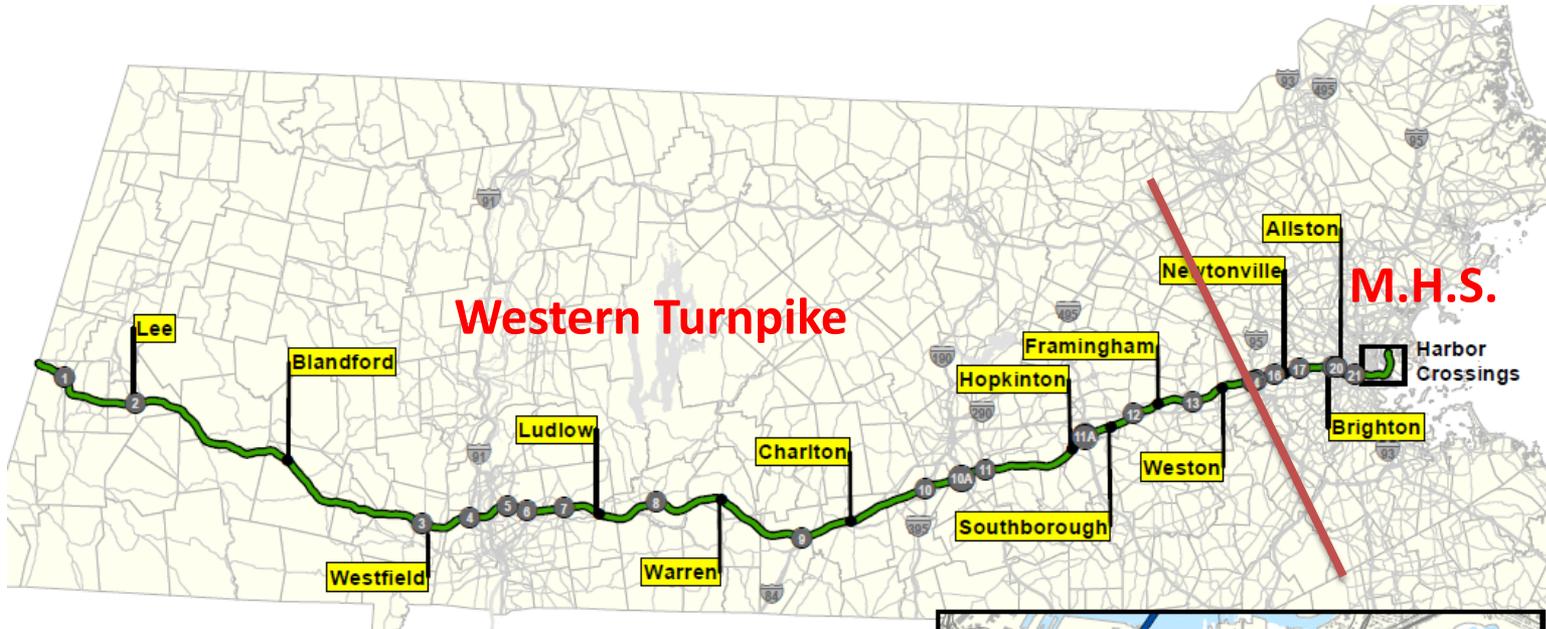
- Congestion: Removing toll booths will ease travel on the turnpike and eliminate congestion at the initial entry plazas. Studies suggest Massachusetts drivers will experience 800 fewer hours of vehicle delay every day, totaling over 280,000 hours annually.
- Environmental benefits: Reducing idling and acceleration / deceleration caused by tollbooths will save between 500 and 2,500 gallons of gasoline per day (200,000 to 875,000 gallons annually), which will reduce greenhouse gas emissions by up to 7,800 tons per year.
- Reduced Operating Costs: The end of cash tolls negates the need for toll collectors, allowing MassDOT to reduce headcount and either save personnel costs or reallocate some personnel resources to essential functions like roadway maintenance or capital projects.

History of All Electronic Tolling



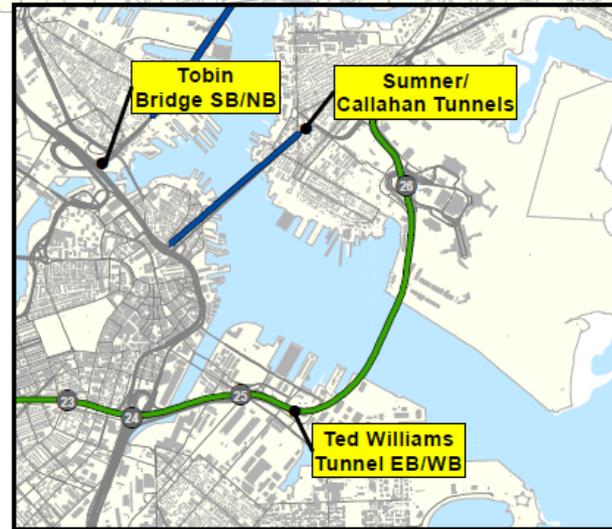
- Initial discussions occurred in 2010. Following a feasibility study by AECOM in 2012, the decision was made to pursue conversion to an All Electronic Tolling system
- Tobin Bridge was converted to All Electronic Tolling in July 2014
- MassDOT Board awarded a \$130M contract in 2014 to Raytheon for AET construction, including gantries, detection equipment, and the host system, including 10 years of system maintenance
- MassDOT Board awarded a 10 year/ \$201M contract in 2014 to TransCore for the AET “backoffice” and operation of seven Customer Service Centers
- AET system is scheduled to “go live” on October 28

Location of Gantries



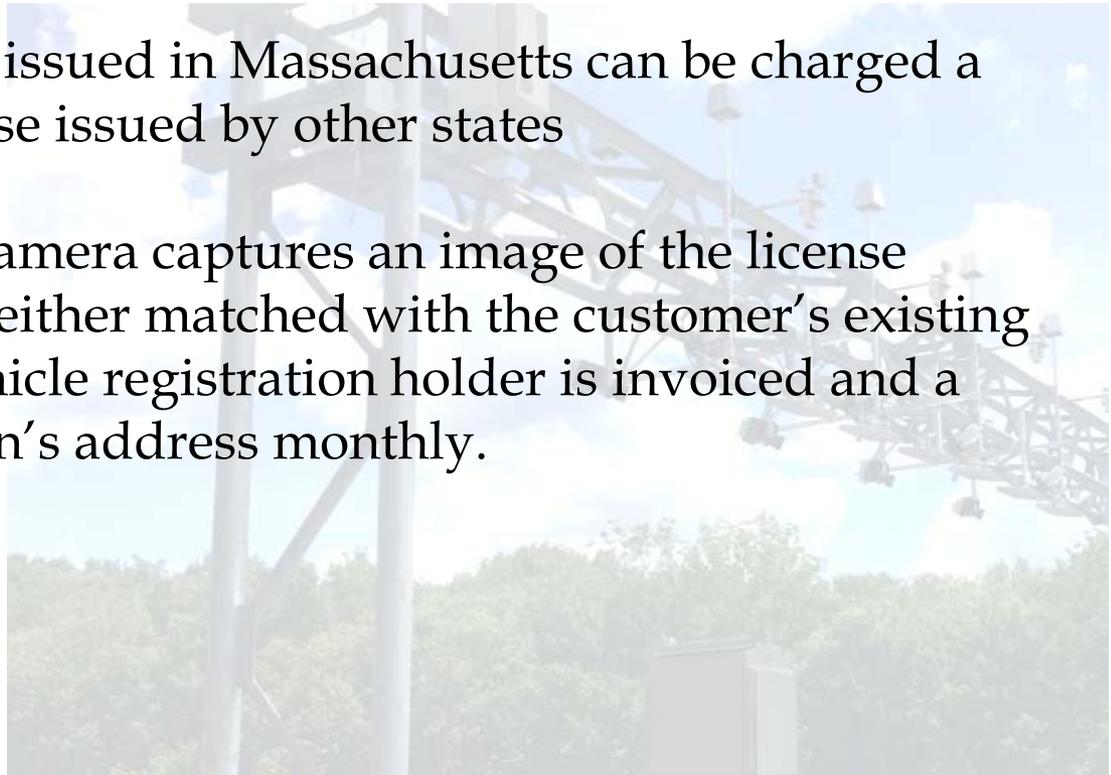
Locus Plan
All Electronic Tolling System (AETS) Project

- AET AETS Location
- Massachusetts Turnpike/I-90
- 8 Existing Interchange/Toll Plaza



Background: How AET Works

- Transactions will be processed either through E-ZPass or an invoice based on the license plate (“Pay By Plate”)
- If an E-ZPass is found, the system classifies the vehicle and charges the appropriate amount to the customer’s account
 - E-Zpass transponders issued in Massachusetts can be charged a different rate than those issued by other states
- If no E-ZPass is found, a camera captures an image of the license plate. The license plate is either matched with the customer’s existing account (V-toll) or the vehicle registration holder is invoiced and a bill is mailed to that person’s address monthly.



Obtaining a Transponder



- MassDOT is encouraging customers to obtain an E-ZPass transponder before October and has a coordinated effort underway to provide multiple opportunities for customers to sign up for E-ZPass

- E-ZPass Signup Options
 - Signup at ezpassma.com
 - E-Z Pass transponders are available at most Registry of Motor vehicles centers (currently at 19/29 locations) – locations listed at www.mass.gov/ezpassma
 - E-Z Pass sign-up is available for AAA members at all 30 AAA locations statewide - locations listed at www.mass.gov/ezpassma
 - Currently five (5) E-ZPass customer service centers and seven (7) post Labor Day- locations listed at www.mass.gov/ezpassma

- MassDOT will conduct outreach efforts after Labor Day and throughout the fall to bring E-ZPass sign-up directly to communities by having the E-Z Pass van at major festivals/events
 - MassDOT will publish this list at www.mass.gov/ezpassma

Privacy and Data Retention

The purpose of all of the data collected by the AET is to allow MassDOT to collect tolls and will not be used to enforce speed limits. By both law and policy, MassDOT is committed to ensuring the privacy of all motorists and all data collected by the All Electronic Tolling system will remain secure and be kept confidential. MassDOT is working to address the following privacy, data use and data retention concerns:

- Ensuring that the data collected by the AET system will be kept confidential;
- Ensuring that data will not be retained by MassDOT longer than necessary for toll collection; and
- Limiting the use of a function called “Hot List” that was included in AET as part of the contract with Raytheon to a narrow set of immediate public safety emergency circumstances.

Legal Framework

- Data collected by the AET system is not a public record and is protected by federal and state laws and regulations.
- Federal Law: Restricts the disclosure of personal information associated with motor vehicle records. (Drivers Privacy Protection Act “DPPA” 18 USC s. 2721).
- State Law: Restricts the disclosure of personal information (MGL c. 66A) and limits the use of electronic tolling system data.

“[MassDOT] shall maintain the confidentiality of all information including, but not limited to, photographs or other recorded images and credit and account data relative to account holders who participate in its electronic toll collection system. Such information shall not be a public record under clause Twenty-sixth of section 7 of chapter 4 or section 10 of chapter 66 and shall be used for enforcement purposes only with respect to toll collection regulations.” (MassDOT Enabling Statute - MGL c. 6C s. 13).

- State Regulation: MassDOT is promulgating regulations to ensure that confidentiality of data associated with all users of the system (whether Pay By Plate, out-of-state E-ZPass or E-ZPassMA).

Schedule for Toll Demolition

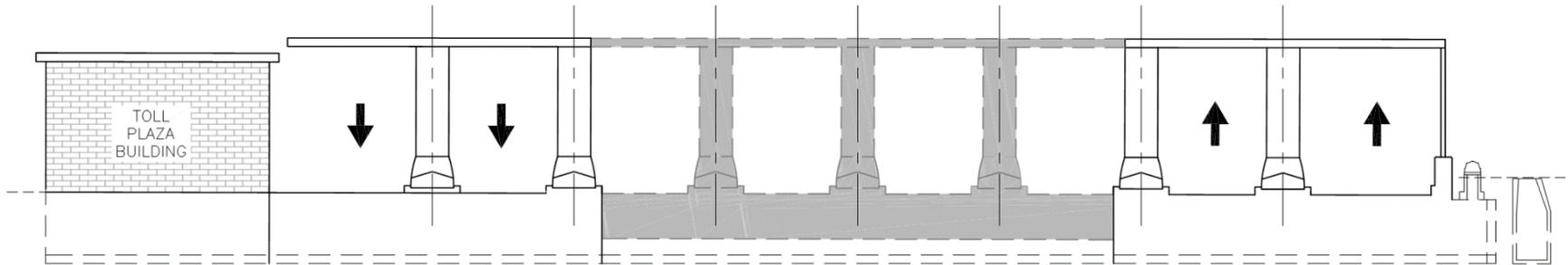
- August 22 - all six toll demolition contracts will be presented

- All Electronic Tolling Go Live - October 28th

- Toll plaza demolition stages:
 - Stage 1 - Begins immediately following Go-Live date
 - Stage 2 - Begins no later than November 22, 2016

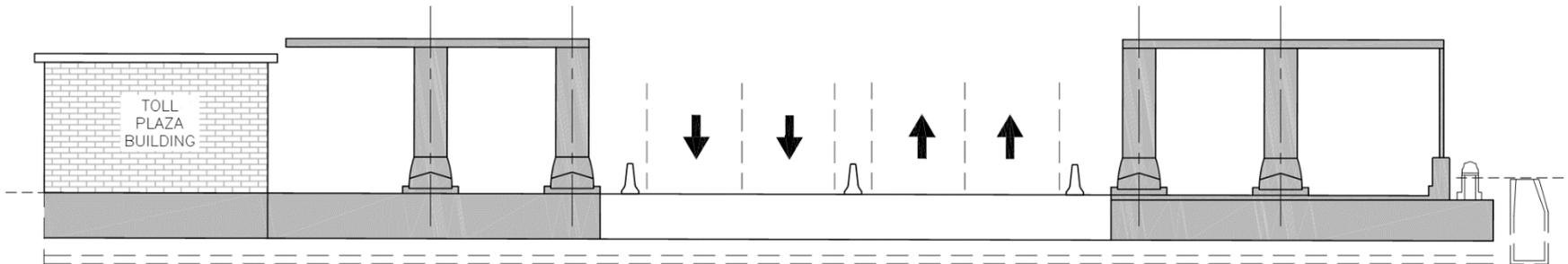
- All work completed by end of 2017

Typical Sequence for Stage 1 + 2



Stage 1

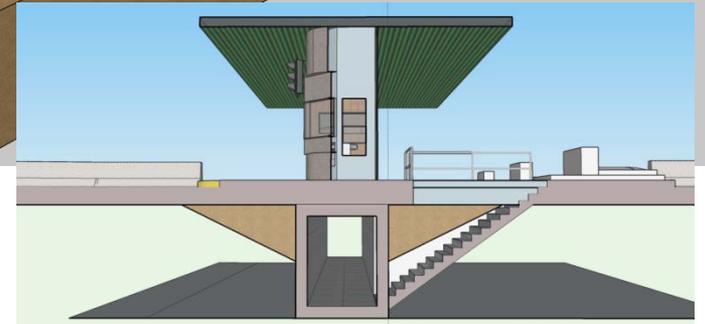
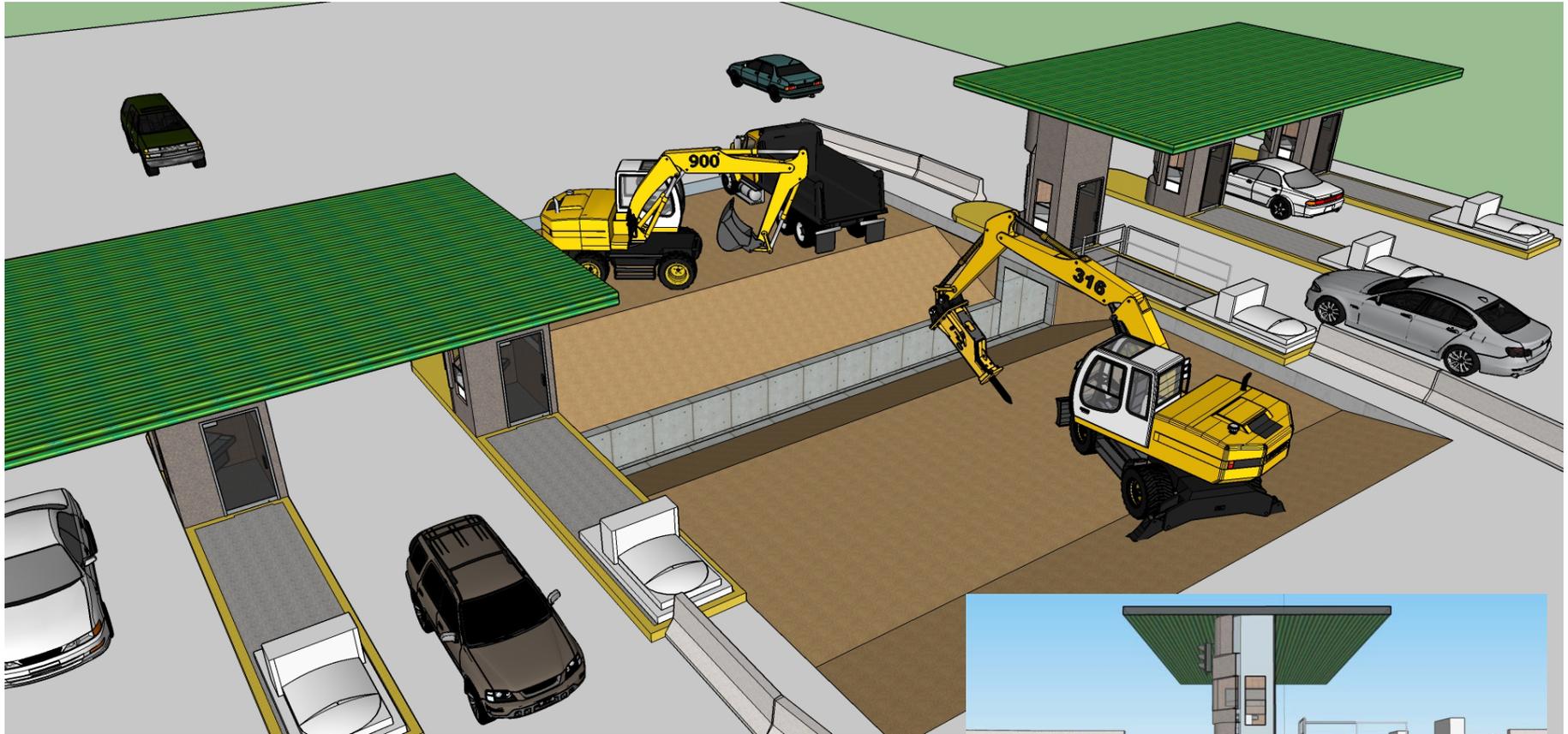
- Traffic channelized to E-ZPass/wide lanes on the outsides of the toll plaza
- Construction/demolition is occurring in the middle of the toll plaza
- Contractors have less than 30 days to work in the center, demolish booths, and lay temporary pavement.
- Speed limit through booths remains 15 mph



Stage 2

- Center booths were removed in Stage 1
- Traffic is shifted to temporary pavement where center booths were previously located
- Work continues to demolish remaining booths, tunnels, and canopies outside of travel lanes

Rendering of Typical Stage 1 Work Zone



Rendering of Typical Stage 2- Interim Condition



Setting Gantry Rates

- The proposed gantry rates are being shown and discussed publicly for the first time at the August 22nd MassDOT Board meeting.
 - No Board action is required at this time
- A revision of the existing toll structure is discussed in MGL Chapter 6C, Section 3, and requires MassDOT to hold at least 2 public hearings that take place 30 days prior to effective date of a change in the toll structure, and allow for a 14 day public comment period.
- MassDOT will hold seven meetings after Labor Day to present the rates and fee and receive feedback
- The rates and fees will be voted on at the October 6th Board meeting
- Note: the late fees associated with unpaid tolls for Pay By Plate customers are set through a separate process and MassDOT intends on maintaining the existing structure already in place on the Tobin Bridge.

Public Process for Setting Rates

	Planned Date(s)
Initial Briefing to MassDOT Board	August 22nd
7 Public Meetings	September 6th- September 15th
14 day comment period	September 16th- September 29th
Board Vote to Approve Final Rates and Fee	October 6th

Suggesting Meeting Locations and Dates (All Meetings Begin at 6:30pm)

Tuesday September 6th
Worcester
 Union Station – Union Hall

Tuesday September 13th
Framingham
 Town Hall –Nevins Hall

Wednesday September 7th
Lynn
 North Shore Community College

Wednesday September 14th
Allston /Brighton
 Jackson Mann School

Monday September 12th
Newton
 City Hall – War Memorial Room

Wednesday September 14th
Springfield
 Springfield City Hall

Thursday September 15th
Lenox
 MassDOT District 1 Headquarters

Details of the proposed rates and rate-setting process will be provided later in today's presentation

Goal: Maintaining current toll revenues and proportions

- The gantry rate proposal has been designed to maintain existing revenue levels across the whole system , as well as the current proportion of total revenue generated by the Western Turnpike and Metropolitan Highway System.
- The commitment to a **revenue neutral program** means that rates will be set such that a *passenger vehicle with a Massachusetts E-ZPass* driving from one end of I-90 to the other will pay no more than the same amount as they do today
 - Under the proposed rates passenger vehicles with E-ZPassMA will pay \$0.45 less than they do today to go from the NY border to Boston
 - Due to location of the gantries selected by the previous administration, many existing trips will go up or down in cost. Some un-tolled movements will become tolled, and vice versa.
- The Tobin Bridge and Sumner/Callahan, and Ted Williams Tunnel will be tolled in both directions, with the toll split $\frac{1}{2}$ and $\frac{1}{2}$ so customers pay the same roundtrip amount as today if they use E-ZPass MA.
- The roundtrip cost under the Resident Discount Program will remain the same for those with resident discount transponders.

How Many Different Rates Will Apply at Each Gantry?

MassDOT's proposal is to have three rates at each gantry:

- One rate is for users of E-ZPass transponders issued by the Commonwealth (E-ZPassMA)
- One rate is for users of compatible E-ZPass transponders issued by other states
- One rate is for vehicles that do not have any transponder and will be billed using the Pay-By-Plate system
 - As explained later, these vehicles will pay the PBP gantry rate and a fee on their first bill associated with the costs mailing an invoice

E-Z Pass MA

- E-ZPassMA is a transponder issued by Massachusetts. Other states also issue E-ZPass transponders. All E-ZPass Transponders are usable in every state that uses E-ZPass.
- Out of state residents may receive E-ZPassMA transponders; they are not limited to in-state residents.
- The Commonwealth can offer discounts to E-ZPassMA users without violating the U.S. Constitution's Interstate Commerce Clause because the discount is available to a resident of any state, should they get an E-ZPassMA Transponder.

How do the proposed rates reflect this commitment to “revenue neutrality”?

- Systemwide: Using 2015 calendar year data to project full calendar year anticipated revenue, revenue on both the Western Turnpike and Metropolitan Highway System will be roughly the same after AET as it is with current tolls:
 - Western Turnpike calendar year revenue with current tolls: \$128.1M
 - Western Turnpike projected calendar year revenue with AET: \$127.7M

 - Metropolitan Highway System calendar year revenue w/current tolls: \$225.0M
 - Metropolitan Highway System calendar year revenue with AET: \$216.3M

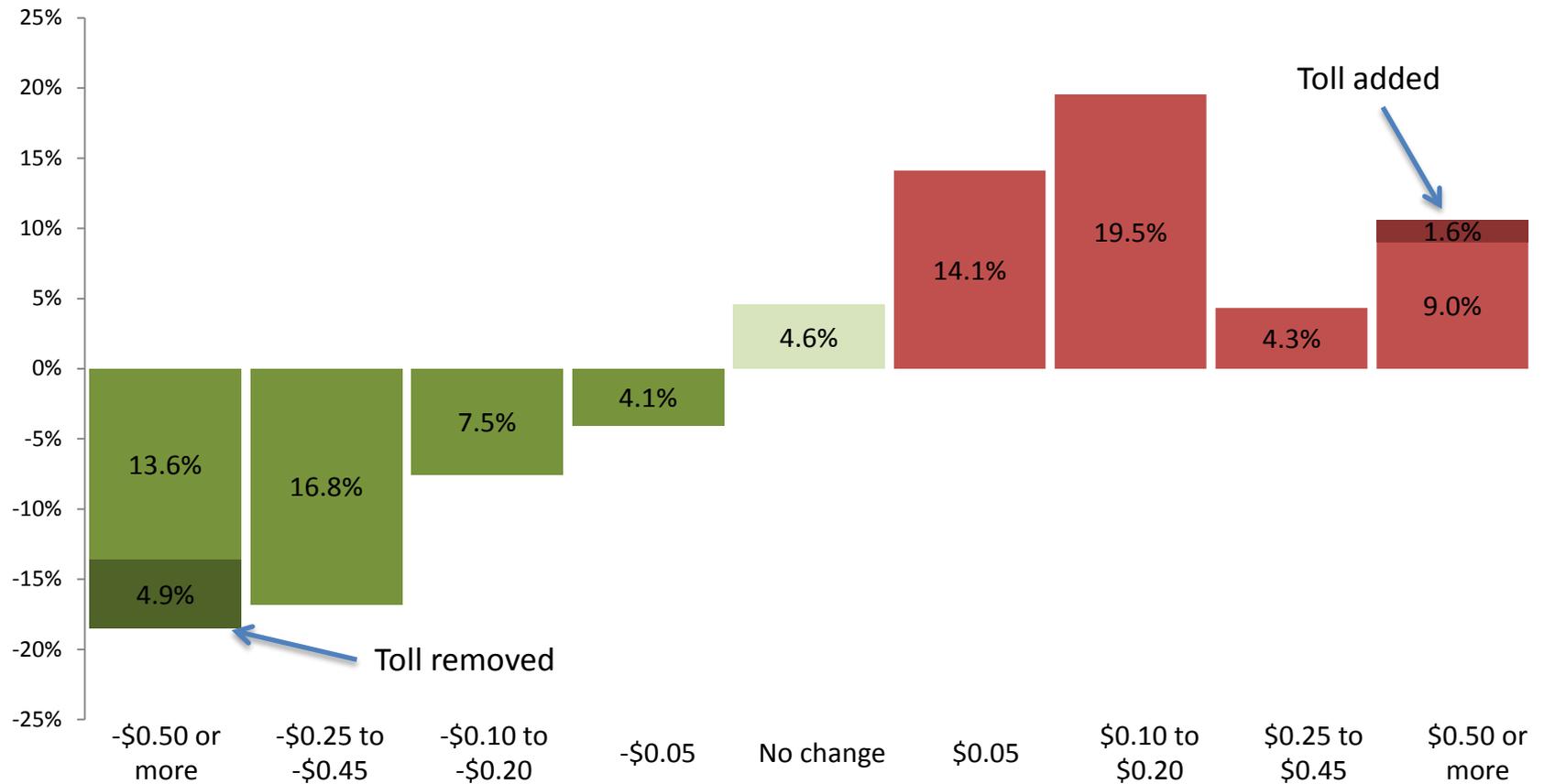
- End-to-End
 - Current toll from NY border to Boston with E-ZPassMA: \$6.60
 - Proposed AET from NY border to Boston with E-ZPassMA: \$6.15

 - Western Turnpike current toll from NY border to Weston w/E-ZPassMA: \$4.70
 - Western Turnpike proposed AET from NY border to Boston w/E-ZPassMA: \$4.45

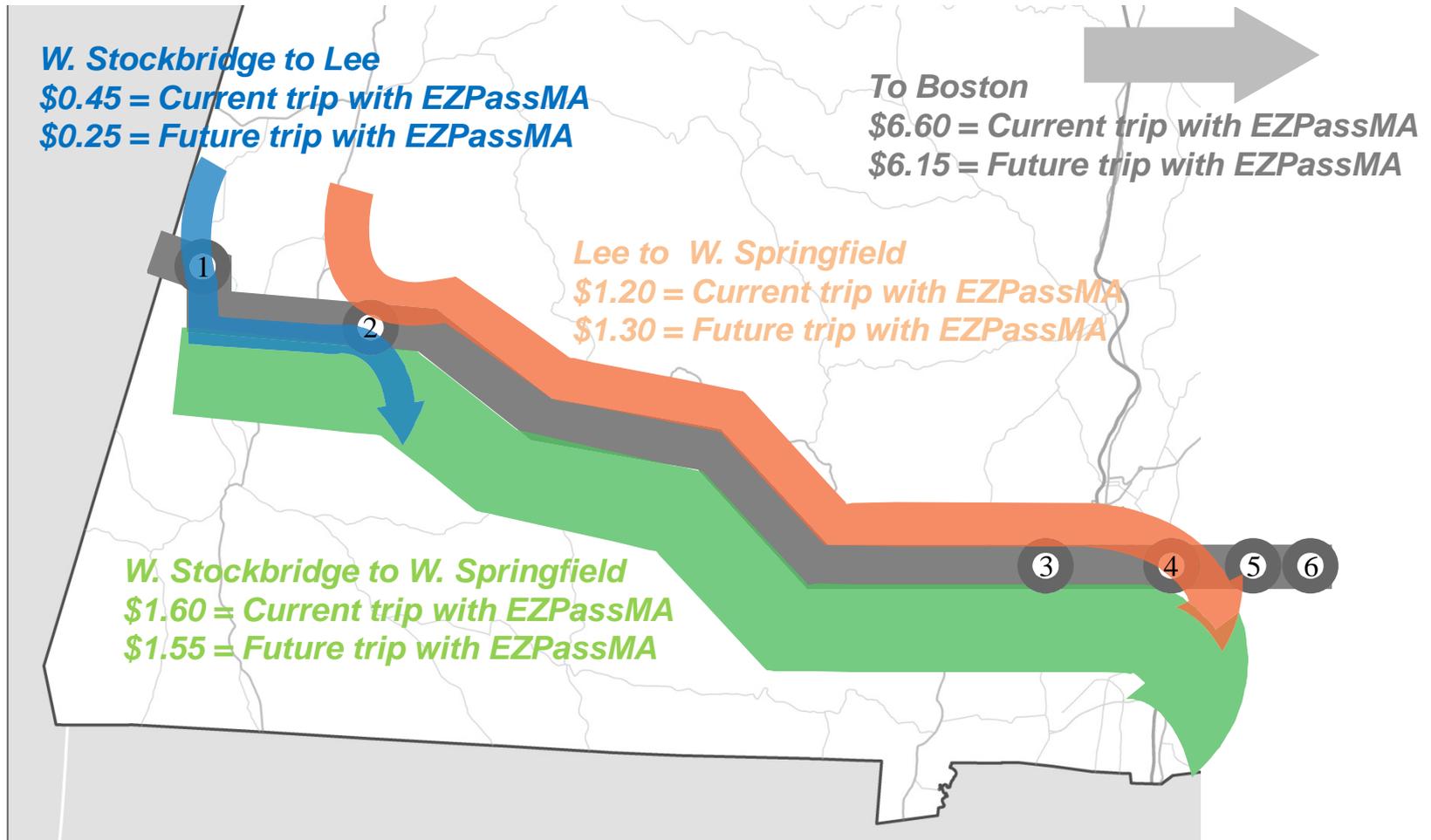
 - MHS current toll from Weston to downtown Boston w/E-ZPassMA: \$2.00
 - MHS proposed AET from Weston to downtown Boston w/E-ZPassMA: \$1.70

Note: revenue numbers do not include other forms of revenue associated with Pay by Plate

Under the proposed rates, the majority (51.5%) of E-ZPass MA trips will either see a decrease or stay the same



Berkshire region trips



Arrow relative scale to % of regional entries

Springfield Metro region trips

To New York

\$2.15 = Current trip with EZPassMA

\$2.00 = Future trip with EZPassMA

To Boston

\$4.90 = Current trip with EZPassMA

\$4.90 = Future trip with EZPassMA

Westfield to W. Springfield

\$0.25 = Current trip with EZPassMA

\$0.30 = Future trip with EZPassMA

W. Springfield to Westfield

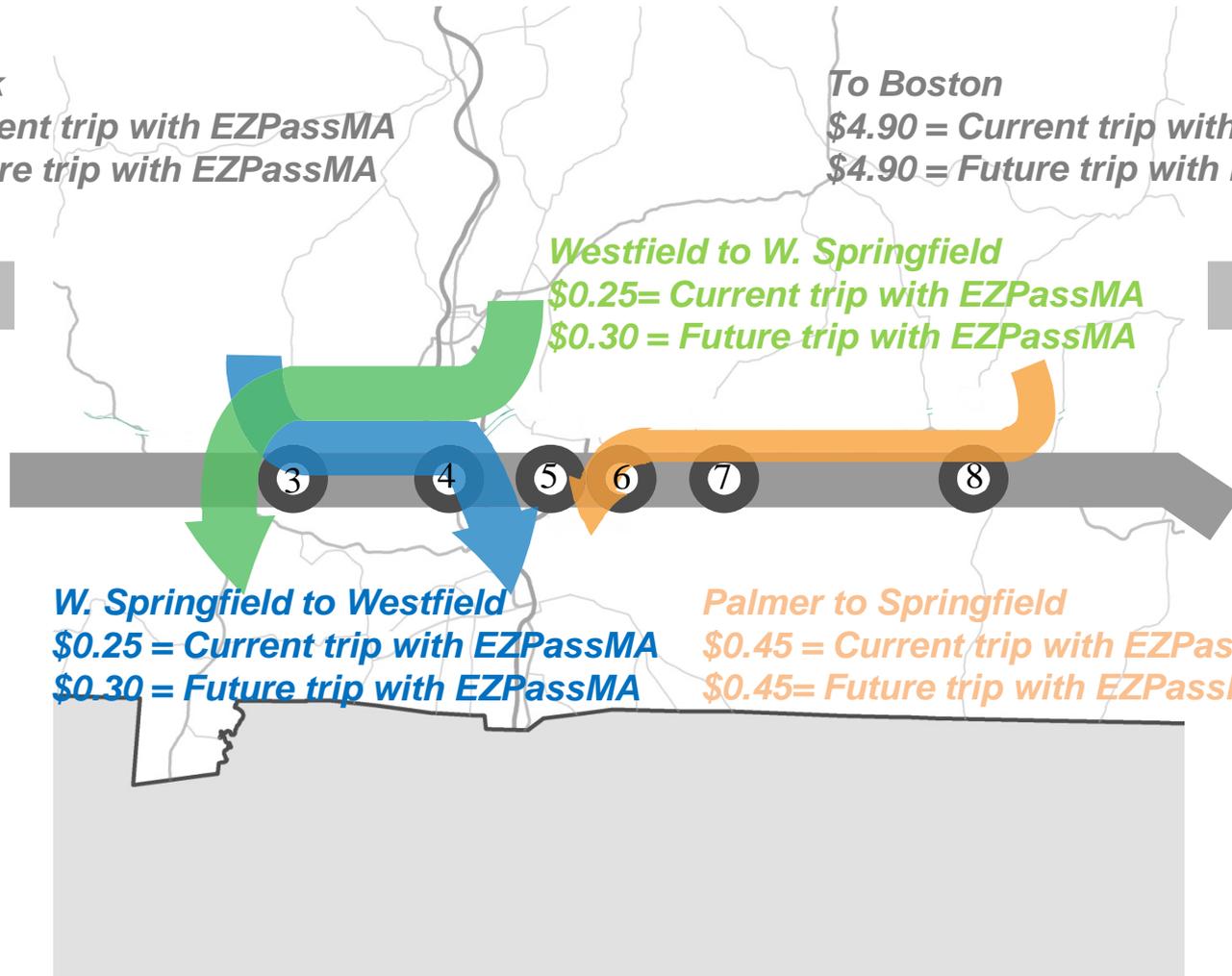
\$0.25 = Current trip with EZPassMA

\$0.30 = Future trip with EZPassMA

Palmer to Springfield

\$0.45 = Current trip with EZPassMA

\$0.45 = Future trip with EZPassMA



Arrow relative scale to % of regional entries

Worcester Metro region trips

To New York
\$3.40 = Current trip with EZPassMA
\$3.05 = Future trip with EZPassMA

Sturbridge to Worcester
\$0.50 = Current trip with EZPassMA
\$0.50 = Future trip with EZPassMA

Sturbridge to Westborough
\$1.10 = Current trip with EZPassMA
\$0.95 = Future trip with EZPassMA

Worcester to Sturbridge
\$0.50 = Current trip with EZPassMA
\$0.50 = Future trip with EZPassMA

To Boston
\$3.65 = Current trip with EZPassMA
\$3.60 = Future trip with EZPassMA

Metro West region trips

To New York

\$4.20 = Current trip with EZPassMA

\$4.00 = Future trip with EZPassMA

Natick to Downtown Boston

\$2.20 = Current trip with EZPassMA

\$2.15 = Future trip with EZPassMA

Westborough to Weston

\$0.70 = Current trip with EZPassMA

\$0.95 = Future trip with EZPassMA

To Boston

\$2.60 = Current trip with EZPassMA

\$2.65 = Future trip with EZPassMA

Natick to Weston

\$0.30 = Current trip with EZPassMA

\$0.45 = Future trip with EZPassMA

128/Newton region trips

To New York

\$5.60 = Current trip with EZPassMA

\$4.65 = Future trip with EZPassMA



Weston to Downtown Boston

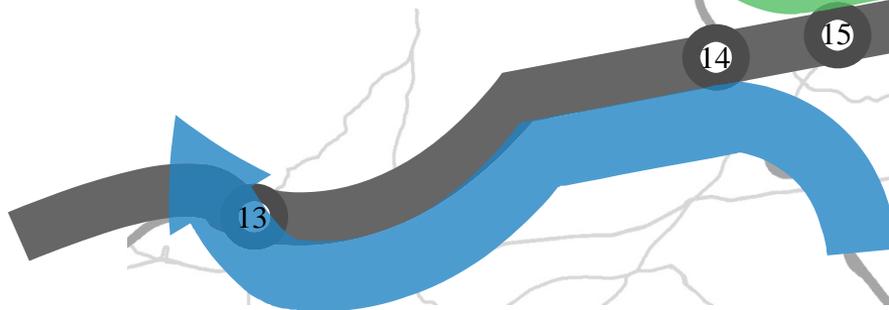
\$2.00 = Current trip with EZPassMA

\$1.70 = Future trip with EZPassMA

Newton Corner to Downtown Boston

\$1.00 = Current trip with EZPassMA

\$1.50 = Future trip with EZPassMA



Weston to Natick

\$0.30 = Current trip with EZPassMA

\$0.45 = Future trip with EZPassMA

To Boston

\$2.00 = Current trip with EZPassMA

\$1.70 = Future trip with EZPassMA

Arrow relative scale to % of regional entries

Boston Metro region trips

To New York

\$6.60 = Current trip with EZPassMA

\$6.15 = Future trip with EZPassMA

Allston/Brighton to Downtown Boston

\$1.00 = Current trip with EZPassMA

\$0.50 = Future trip with EZPassMA

Downtown Boston to Weston

\$2.00 = Current trip with EZPassMA

\$1.70 = Future trip with EZPassMA

Downtown Boston to Allston/Brighton

\$1.00 = Current trip with EZPassMA

\$0.50 = Future trip with EZPassMA

Setting Pay by Plate fees and costs

- The are direct costs MassDOT incurs to bill Pay By Plate customers that are far greater than the cost to charge E-ZPass customers.
- Pay By Plate rates and fees are not meant to be punitive, but to cover the additional cost of processing the transaction and mailing invoices. There are costs incurred for each time a PBP customer passes under a gantry, and a cost for sending a bill at the end of the month.
- The proposed fee option was developed by studying the **additional** cost of processing Pay By Plate transactions vs. E-ZPass transactions
- In order to recover these additional costs, Pay By Plate customers will pay a higher rate at each gantry (equivalent to the per transaction cost MassDOT incurs), and a billing fee (equivalent to the cost of mailing a bill at the end of the month).
- The estimated cost for each PBP transaction is \$0.37, plus \$0.58 for mailing each bill.

Proposed Toll Rate Schedule

Proposed Rate At Each Toll Zone

Pay by Plate	\$0.60		\$1.45		\$0.65		\$0.80		\$0.95		\$0.90		\$0.80	\$0.60	\$0.60	\$0.80		\$0.70	\$1.55	\$1.30
E-ZPass (non-MA)	\$0.30		\$1.15		\$0.35		\$0.50		\$0.65		\$0.60		\$0.50	\$0.30	\$0.30	\$0.50		\$0.40	\$1.25	\$1.00
E-ZPass MA	\$0.25		\$1.00		\$0.30		\$0.45		\$0.55		\$0.50		\$0.45	\$0.25	\$0.25	\$0.45		\$0.20	\$1.00	\$0.50

+\$0.60 billing fee

2-way tolling

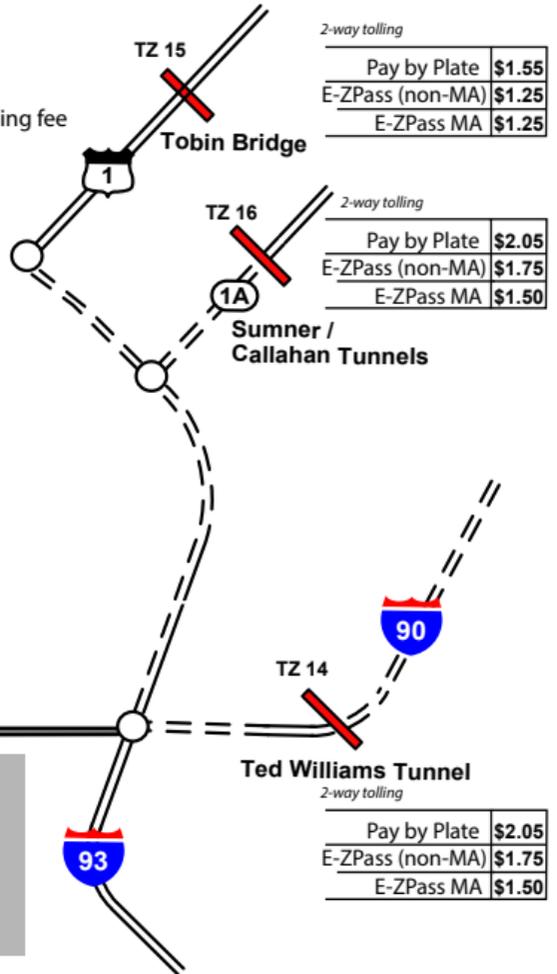
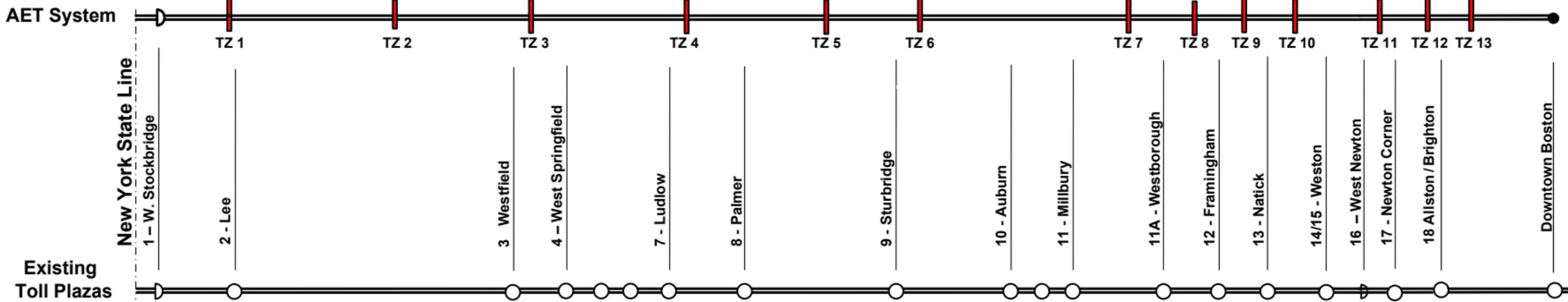
Pay by Plate	\$1.55
E-ZPass (non-MA)	\$1.25
E-ZPass MA	\$1.25

2-way tolling

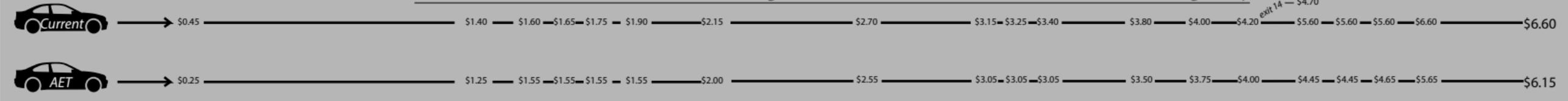
Pay by Plate	\$2.05
E-ZPass (non-MA)	\$1.75
E-ZPass MA	\$1.50

2-way tolling

Pay by Plate	\$2.05
E-ZPass (non-MA)	\$1.75
E-ZPass MA	\$1.50



Cumulative Cost incurred at each interchange for 2-axle E-ZPassMA New York to Boston Full Length Trip



Questions?