Maryland Transportation Authority

BOARD MEETING

THURSDAY, MAY 20, 2021

** OPEN MEETING VIA LIVESTREAMING **

MARYLAND TRANSPORTATION AUTHORITY
BOARD MEETING

MAY 20, 2021 9:00 AM

This meeting will be livestreamed on the MDTA Board Meeting Page

NOTE: This is an Open Meeting being conducted via livestreaming. The public is welcomed to watch the meeting at the link listed above. ***If you wish to comment on an agenda item please email your name, affiliation, and agenda item to nhenson@mdta.state.md.us no later than 5:00 p.m. on Tuesday, May 18, 2021. You MUST pre-register in order to comment.*** Once you have pre-registered you will receive an email with all pertinent information.

AGENDA

OPEN SESSION – 9:00 AM

Call Meeting to Order

1.	**Approval** – Open and Closed Session Meeting Minutes of April 26, 2021	Chairman	5 min.
2.	**Resolutions** – Years of Service Recognition – Recognition for Two Retired Employees	Jim Ports	10 min.
3.	**Approval** – Contract Awards • BB-2726-0000 – Eastbound William Preston Lane, Jr. Memorial (Bay) Bridge Rehabilitation, Phase 1 – Pre-Construction Services (Design) • FT-3019-0000 – All Electronic Toll Conversion at the Fort McHenry Tunnel • BB-3013-0000R – On-Call Structural Repairs and Miscellaneous Modifications for William Preston Lane, Jr. Memorial (Bay) Bridge	Donna DiCerbo	10 min.
4.	**Update** – Procurement Report on Open Contracts – Verbal	Donna DiCerbo	5 min.
5.	**Approval** – Quarterly Review of Investment Strategy and Performance – Approval to Continue with the Current Investment Strategy	Allen Garman	5 min.
6.	**Update** – Non-Recourse Financings – Update on Outstanding Non-Recourse Debt Financings	Allen Garman Jim Walsh, MAA	5 min.
7.	**Update** – 3rd Quarter Operating Budget Comparison – Review of Actual vs. Projected Spending for the Fiscal Year 2021 Operating Budget	Jeffrey Brown	5 min.
8.	**Update** – 3rd Quarter Capital Budget Comparison – Review of Actual vs. Projected Spending for the Fiscal Year 2021 Capital Budget	Jeanne Marriott	5 min.
9.	**Update** – Consolidated Transportation Program (CTP) Process and Additions	Jeanne Marriott	5 min.

10. **Update** – Third Generation Electronic Toll Collection (3G ETC) System – Operational and Revenue Update	Deb Sharpless Will Pines	20 min.
***** 10-Minute Break *****		
11. **Update** – Phase 1 South: American Legion Bridge I-270 to I-370 Recommended Preferred Alternative – Discuss the New Recommended Preferred Alternative	Jeff Folden	15 min.
12. **Approval** – Toll Rate Phase 1 South: American Legion Bridge I-270 to I-370 – Approval to Begin the Toll Setting Process and to Schedule Toll Hearings	Deb Sharpless Carl Chamberlin	60 min.
13. **Update** – Human Resources Committee – Verbal	Member Gaines	10 min.
14. **Update** – Executive Director's Report – Verbal	Jim Ports	10 min.

Vote to Adjourn Meeting

TAB 1

MARYLAND TRANSPORTATION AUTHORITY
BOARD MEETING

MONDAY, APRIL 26, 2021
9:00 A.M.
OPEN MEETING VIA VIDEO CONFERENCE AND LIVESTREAMING

OPEN SESSION

Greg Slater, Chairman
Sean Powell, Acting Chairman

MEMBERS ATTENDING:
Dontae Carroll
William H. Cox, Jr.
William C. Ensor, III
W. Lee Gaines, Jr.
Mario J. Gangemi
Cynthia D. Penny-Ardinger, Esq.
Jeffrey S. Rosen
John F. von Paris

STAFF ATTENDING:
Col. Kevin Anderson
Percy Dangerfield
Chantelle Green
Jim Harkness
Natalie Henson
Kelly Melhem
Kimberly Millender, Esq.
Ebony Moore
Kelly Mundle
Mary O'Keeffe
James F. Ports, Jr.
Will Pines
Bradley Ryon
Deb Sharpless
Tim Sheets
Christina Thompson
Eric Willison

OTHER ATTENDEES:
Delegate Al Carr

At 9:02 a.m. Chairman Greg Slater called the meeting of the Maryland Transportation Authority (MDTA) Board to order. The meeting was held via video conference and livestreamed on the MDTA Board Meeting web page. Chairman Slater announced that he had a conflict in his schedule and would need to excuse himself from the meeting early. He advised that Acting Chairman Sean Powell would lead the meeting in his absence.

MOTION TO MOVE AGENDA ITEM 4 – UPDATE – LEGISLATIVE SESSION TO BECOME AGENDA ITEM 3

Chairman Greg Slater requested a motion to move Agenda Item 4 – Update – Legislative Session to Agenda Item 3. Upon motion by Member William H. Cox, Jr. and seconded by Member Mario J. Gangemi, the MDTA unanimously approved moving the agenda item.

APPROVAL – OPEN SESSION AND CLOSED SESSION MEETING MINUTES OF MARCH 25, 2021

Upon motion by Member Mario J. Gangemi and seconded by Member W. Lee Gaines, the open session and closed session meeting minutes of the MDTA Board meeting held on March 25, 2021 were unanimously approved.

UPDATE – THIRD GENERATION ELECTRONIC TOLL COLLECTION (3G ETC) SYSTEM

Mr. Will Pines, Ms. Kelly Mundle, and Ms. Deborah Sharpless updated the MDTA Board on the 3G ETC transition, outreach, revenue, and post go-live backlog plan.

Mr. Pines gave an update on the key milestones and focus areas of the project. The key focus areas include software reports and documentation, transition cutover and backlog tasks, QA/QC and lane maintenance improvements, and systems performance and storage. He also discussed the possible risks after "go-live" including high volumes at the call center, processing backlogs, software bugs, and Notice of Toll Due (NOTD) and citation revisions and image quality.

Ms. Mundle gave an update on the outreach regarding this project. This included press releases, pre-launch media campaign, *E-ZPass* customer emails, elected official emails, social media, GovDelivery, and the Go-Live Media Campaign.

Ms. Sharpless gave an update on traffic and revenue. She stated that traffic is meeting or exceeding the COVID-19 forecast. She also explained that the Fiscal Year 2021 actual revenue is expected to be below the official forecast by $72 million however it is anticipated that the MDTA will still achieve its debt service coverage requirement. She also stated that the Fiscal Year 2022 forecast is expected to be above forecast by $56 million.

The update ended with a plan to clear the backlog of NOTD's including the transactions from the nine-day cut over period.

***Announcements:*

1) ***Due to a scheduling conflict, Member Dontae Carroll logged out of meeting at 9:30 am and logged back into meeting at 10:17 am.***
2) ***At 9:59 am Chairman Gregory Slater left the meeting due to a scheduling conflict. Acting Chairman Sean Powell led the remainder of the meeting.***

UPDATE – LEGISLATIVE SESSION

Mr. Bradley Ryon gave a final update to the MDTA Board wrapping up the 2021 legislative session and its impacts to the MDTA.

RESOLUTIONS – YEARS OF SERVICE RECOGNITION

Ms. Mary O'Keeffe read the Years of Service Recognition for retired employees Ms. Lynne Outerbridge-Gardner and Mr. Bryant C. Talley. On the occasion of their retirement from their distinguished careers of service, the Chairman and Members of the Maryland Transportation Authority hereby express to them their most sincere appreciation for their excellence and commitment.

PUBLIC COMMENT ON AGENDA ITEM: UPDATE – LEGISLATIVE SESSION

Delegate Al Carr pre-registered to comment on the Update – Legislative Session agenda item. Acting Chairman Sean Powell agreed to hear this public comment. Due to Del. Carr calling in late his comment was given after the Resolutions were presented.

Delegate Al Carr gave kudos to the MDTA legislative team for their great work during session. He also asked the MDTA Board to consider a toll reciprocity agreement with Pennsylvania and possibly Delaware instead of procuring a collection agency to collect out of state tolls that are due the MDTA.

UPDATE – EXECUTIVE DIRECTOR

Ms. Mary O'Keeffe updated the MDTA Board on the status of the amended budget that included a one-time bonus to permanent State employees in the amount of $1,000; the DriveEZMd "Go Live" launch; the April 13 "Getting Your Foot in the Door" program; National Work Zone Safety Week; and a "Moment in MDTA History" featuring the William Preston Lane, Jr. Memorial (Bay) Bridge.

VOTE TO GO INTO CLOSED SESSION

At 11:06 a.m., upon motion by Member William H. Cox, Jr. and seconded by Member Mario J. Gangemi the Members voted unanimously to move into Closed Session under the Maryland Open Meetings Act, the MDTA Board will meet in Closed Session under the General Provisions Article, Sections 3-305(b)(10) and (12) to receive a report on certain pending criminal investigations and an overview and update on deployment of police staff and resources; and General Provisions Article, Sections 3-305(b)(8) to receive a status update on all litigation currently pending against the MDTA.

In attendance for Closed Session was Acting Chairman Sean Powell, Members Carroll, Cox, Ensor, Gaines, Gangemi, Penny-Ardinger, Rosen, and von Paris; and Jim Ports, Mary O'Keeffe, Kim Millender, Esq., Col. Kevin Anderson, Natalie Henson, and Ebony Moore.

VOTE TO ADJOURN CLOSED SESSION

At 11:32 a.m., a motion was made by Member W. Lee Gaines, Jr. and seconded by Member Dontae Carroll, which was unanimously approved, to adjourn the Closed Session and return to Open Session. There were no actions taken in Closed Session.

VOTE TO ADJOURN MEETING

There being no further business, upon motion by Member Mario J. Gangemi and seconded by Member William H. Cox, Jr., the Members unanimously voted to adjourn the meeting at 11:35 a.m.

The next MDTA Board Meeting will be held on Thursday, May 20, 2021 at 9:00 a.m. via livestream.

APPROVED AND CONCURRED IN:

_____

Gregory Slater, Chairman

TAB 2

MARYLAND TRANSPORTATION AUTHORITY

RESOLUTION

Recognizing the Services of

Valencia Hainesworth

Administrator VI

WHEREAS, *Valencia Hainesworth began her career with the Maryland Department of Transportation State Highway Administration as a Clerical Assistant on February 24, 1988, and*

WHEREAS, *Ms. Hainesworth continued to progress in the Administration field at the State Highway Administration and became an Office Assistant II on April 06, 1988, an Office Assistant III on November 02, 1988, an Office Clerk I on March 22, 1989, and an Office Clerk II on January 23, 1991, and*

WHEREAS, *With her knowledge and perseverance at State Highway Administration, Ms. Hainesworth was promoted to Administration Specialist Trainee on June 07, 1995, and to Administration Specialist I, Administration Specialist II and Administration Specialist III on June 1, 2003, and held positions of Administration Officer II and Administration Officer III, and*

WHEREAS, *On January 18, 2006, Ms. Hainesworth joined the Maryland Transportation Authority as an Administrator II, and she continued to grow in the field and was promoted through the Administrator series from 2006 to 2021, and*

WHEREAS, *Her coworkers conveyed their appreciation for her efforts as an invaluable member of the team and expressed the fact that her dedication, personality and calm demeanor will be missed, now*

THEREFORE BE IT RESOLVED, *On the occasion of Valencia Hainesworth's retirement from her distinguished career of exemplary service, the Chairman and Members of the Maryland Transportation Authority Board hereby express to Ms. Hainesworth their most sincere appreciation for her excellence and commitment, and*

BE IT FURTHER RESOLVED, *That this Resolution be entered into the minutes of the MDTA Board meeting of May 20, 2021, and a copy, appropriately framed, be presented to Ms. Hainesworth as an expression of the MDTA Board's appreciation and esteem.*

Gregory Slater, *Chairman*

Dontae Carroll, *Member*

Mario J. Gangemi, P.E., *Member*

William H. Cox, Jr., *Member*

Cynthia D. Penny-Ardinger, *Member*

William C. Ensor, III, *Member*

Jeffrey S. Rosen, *Member*

W. Lee Gaines, Jr., *Member*

John F. von Paris, *Member*

James F. Ports, Jr, *Executive Director*

MARYLAND TRANSPORTATION AUTHORITY

RESOLUTION

Recognizing the Services of

Meshelle Howard

Program Manager Sr. I

WHEREAS, *Meshelle Howard began her career with the Maryland Department of Transportation as a Supply Officer II on February 24, 1988, and Supply Officer III on June 28, 1995, and*

WHEREAS, *On March 13, 1996, Ms. Howard joined the Maryland Transportation Authority as an MDTA Administrative Specialist II, and was promoted to Procurement Associate III on July 01, 1998, and*

WHEREAS, *She continued to build her knowledge and skills and was promoted through the Administrator series from 2003 to 2013, and*

WHEREAS, *With her hard work and leadership skills, Ms. Howard was promoted to Program Manager Sr. I on July 01, 2013, a position held until retirement, and*

WHEREAS, *Her coworkers conveyed their appreciation with a Letter of Appreciation for an Annual Administration/Secretarial Recognition Day on May 20,1998. Her professionalism and enthusiasm in demonstrating self-defense strategies was most informative and helpful. Ms. Howard was an invaluable member of the team and her dedication, personality and smile will be missed, now*

THEREFORE BE IT RESOLVED, *On the occasion of Meshelle Howard's retirement from her distinguished career of exemplary service, the Chairman and Members of the Maryland Transportation Authority Board hereby express to Ms. Howard their most sincere appreciation for her excellence and commitment, and*

BE IT FURTHER RESOLVED, *That this Resolution be entered into the minutes of the MDTA Board meeting of May 20, 2021, and a copy, appropriately framed, be presented to Ms. Howard as an expression of the MDTA Board's appreciation and esteem.*

Gregory Slater, *Chairman*

Dontae Carroll, *Member*

Mario J. Gangemi, P.E., *Member*

William H. Cox, Jr., *Member*

Cynthia D. Penny-Ardinger, *Member*

William C. Ensor, III, *Member*

Jeffrey S. Rosen, *Member*

W. Lee Gaines, Jr., *Member*

John F. von Paris, *Member*

James F. Ports, Jr, *Executive Director*

TAB 3

MEMORANDUM

TO: MDTA Board
FROM: Ms. Donna DiCerbo, CPPO, CPPB, Director of Procurement
SUBJECT: BB-2726-0000 – Eastbound William Preston Lane, Jr. Memorial (Bay) Bridge Rehabilitation, Phase 1 – Pre-Construction Services (Design)
DATE: May 20, 2021

PURPOSE

To seek contingent approval to execute Contract No. BB-2726-0000 - Eastbound William Preston Lane, Jr. Memorial (Bay) Bridge Rehabilitation, Phase 1 – Pre-Construction Services (Design).

SUMMARY

This contract is for pre-construction services (design) for the Eastbound Bay Bridge Rehabilitation, Phase 1 - Pre-Construction Services. The MDTA evaluated five (5) proposals for a Construction Management at Risk (CMAR) contract for pre-construction and construction services. The construction services of this project will include the deck floor system replacement and up to 4'-0" widening for deck truss spans T1-T13 and T14-T22, utility relocation, painting, facility-wide rehabilitation, and off-site storm water management work.

RECOMMENDATION

To provide contingent approval to execute Contract No. BB-2726-0000 - Eastbound William Preston Lane, Jr. Memorial (Bay) Bridge Rehabilitation, Phase 1 – Pre-Construction Services (Design).

ATTACHMENT

- Project Summary

Maryland Transportation Authority

AUTHORITY BOARD PROJECT SUMMARY

BB-2726-0000 Eastbound William Preston Lane, Jr. Memorial (Bay) Bridge Rehabilitation, Phase 1 – Pre-Construction Services (Design)

PIN NUMBER	2317
CONTRACT NUMBER	BB-2726-0000
CONTRACT TITLE	Eastbound William Preston Lane, Jr. Memorial (Bay) Bridge Rehabilitation, Phase 1 – Pre-Construction Services (Design)
PROJECT SUMMARY	This Contract is for Preconstruction Services (Design) for the Eastbound Bay Bridge Rehabilitation, Phase 1 - Pre-Construction Services. The MDTA evaluated five (5) proposals for a Construction Management at Risk (CMAR) contract for Preconstruction and Construction services. The Construction Services of this project will include the deck floor system replacement & up to 4'-0" widening for deck truss Spans T1-T13 & T14-T22, utility relocation, painting, facility-wide rehabilitation & off-site storm water

SCHEDULE

ADVERTISEMENT DATE	9/6/2019
ANTICIPATED NTP DATE	Jul-21
DURATION (CALENDER DAYS)	550

MBE PARTICIPATION - Preconstruction	**MBE PARTICIPATION ADVERTISED GOAL (%)**	**PROPOSED GOAL (%)**
OVERALL MBE	N/A	N/A
AFRICAN AMERICAN	N/A	N/A
ASIAN AMERICAN	N/A	N/A
VSBE	N/A	N/A

BID PROTEST YES ☐ NO ☑

	Preconstruction Services ($)	**Construction Services ($)**
ENGINEER'S ESTIMATE (EE)	$900,500	$225,600,000

PROPOSER	**FINANCIAL PRICE**	**% VARIANCE TO EE**	**PRICE RANK**	**CMAR Fee (%)**	**TOTAL EVALUATED PRICE (LS)**	**TECHNICAL SCORE**	**TECHNICAL RANK**	**OVERALL RANK**
Corman / McLean	**$655,571**	-27%	3	7.50%	$215,271,642	Exceptional-	1	1
Archer Western	**$860,000**	-4%	1	5.70%	$211,882,500	Good	3	2
Wagman / Cianbro	**$923,000**	2%	4	8.00%	$216,537,286	Good+	2	3
Joseph B Fay Co.	**$750,000**	-17%	2	7.29%	$214,946,821	Good	4	4
Kiewit Infrastructure	**$1,927,604**	114%	5	14.90%	$231,317,247	Good-	5	5

MEMORANDUM

TO: MDTA Board
FROM: Ms. Donna DiCerbo, CPPO, CPPB, Director of Procurement
SUBJECT: FT-3019-0000 – Fort McHenry Tunnel (FMT) All Electronic Tolling (AET) Conversion
DATE: May 20, 2021

PURPOSE

To seek contingent approval to execute Contract No. FT-3019-0000 - Fort McHenry Tunnel (FMT) All Electronic Tolling (AET) Conversion.

SUMMARY

The work to be performed under this contract includes the total removal of the existing Fort McHenry Tunnel toll plaza elements, installation of the new AET toll gantries and reconfiguration of the travel lanes along the I-95 mainline and the ramps to and from Keith Avenue.

RECOMMENDATION

To provide contingent approval to execute Contract No. FT-3019-0000 - Fort McHenry Tunnel (FMT) All Electronic Tolling (Aet) Conversion.

ATTACHMENT

- Project Summary

Maryland Transportation Authority

AUTHORITY BOARD PROJECT SUMMARY

FT-3019-0000 Fort McHenry Tunnel All Electronic Tolling Conversion

PIN NUMBER	2517
CONTRACT NUMBER	FT-3019-0000
CONTRACT TITLE	Fort McHenry Tunnel All Electronic Tolling Conversion

PROJECT SUMMARY

The work to be performed under this Contract includes the total removal of the existing Fort McHenry Tunnel toll plaza elements, installation of the new All Electronic Tolling toll gantries and reconfiguration of the travel lanes along the I-95 mainline and the ramps to and from Keith Avenue.

SCHEDULE

ADVERTISEMENT DATE	12/22/2020
ANTICIPATED NOTICE TO PROCEED DATE	Jul-21
DURATION (CALENDER DAYS)	730

MBE PARTICIPATION	**($) Advertised GOAL (%)**	**Proposed GOAL (%)**
OVERALL MBE	25.00%	28.35%
AFRICAN AMERICAN	8.00%	8.02%
ASIAN AMERICAN	-	-
HISPANIC AMERICAN	-	9.30%
WOMEN	11.00%	11.03%
VSBE	1.00%	1.00%

ENGINEER'S ESTIMATE (EE) **$16,412,860.50**

BID PROTEST **YES** ☐ **NO** ☑

BID RESULTS	**BID AMOUNT ($)**	**% VARIANCE TO EE**
Allan Myers MD, Inc.	$13,597,777.00	-17%
Brawner Builders, Inc.	$15,795,081.00	-4%
Concrete General, Inc.	$15,847,776.02	-3%
Archer Western Construction, LLC	$18,337,202.03	12%
Kiewit Infrastructure Co.	$20,406,896.75	24%

MEMORANDUM

TO: MDTA Board
FROM: Ms. Donna DiCerbo, CPPO, CPPB, Director of Procurement
SUBJECT: BB-3013-0000R – On-Call Structural Repairs and Miscellaneous Modifications for William Preston Lane, Jr. Memorial (Bay) Bridge
DATE: May 20, 2021

PURPOSE

To seek contingent approval to execute Contract No. BB-3013-0000R - On-Call Structural Repairs and Miscellaneous Modifications for William Preston Lane, Jr. Memorial (Bay) Bridge.

SUMMARY

This project involves performing structural steel, concrete, and miscellaneous on-call repairs on an as needed basis. This contract also contains time-sensitive priority repairs on the William Preston Lane, Jr. Memorial (Bay) Bridge structures. In addition to the twin structures, the on-call repairs will be performed on the William Preston Lane, Jr. Memorial (Bay) Bridge facility, which includes toll plaza, sign structures, gantries, etc.

RECOMMENDATION

To provide contingent approval to execute Contract No. BB-3013-0000R - On-Call Structural Repairs and Miscellaneous Modifications for William Preston Lane, Jr. Memorial (Bay) Bridge.

ATTACHMENT

- Project Summary

Maryland Transportation Authority

AUTHORITY BOARD PROJECT SUMMARY

BB-3013-0000R - On-Call Structural Repairs and Miscellaneous Modifications for William Preston Lane, Jr. (Bay) Bridge

PIN NUMBER	2501
CONTRACT NUMBER	BB-3013-0000R
CONTRACT TITLE	On-Call Structural Repairs & Miscellaneous Modifications for William Preston Lane, Jr. (Bay) Bridge

PROJECT SUMMARY

This project involves performing structural steel, concrete, and miscellaneous on-call repairs on an as needed basis. This contract also contains time sensitive priority repairs on the William Preston Lane, Jr. Memorial (Bay) Bridge structures. In addition to the twin structures, the on-call repairs will be performed on the William Preston Lane, Jr. Memorial (Bay) Bridge facility, which includes toll plaza, sign structures, gantries, etc.

SCHEDULE

ADVERTISEMENT DATE	1/28/2021
ANTICIPATED NOTICE TO PROCEED DATE	Jul-21
DURATION (CALENDER DAYS)	1,095

MBE PARTICIPATION	**($) Advertised GOAL (%)**	**Proposed GOAL (%)**
OVERALL MBE	18.00%	18.00%
AFRICAN AMERICAN	0.00%	7.69%
ASIAN AMERICAN	0.00%	2.90%
HISPANIC AMERICAN	0.00%	0.00%
WOMEN	0.00%	7.40%
VSBE	1.00%	1.00%

ENGINEER'S ESTIMATE (EE) **$14,370,900.00**

BID RESULTS	**BID AMOUNT ($)**	**% VARIANCE TO EE**
M.D. Miller Co. (Marksmen)	$12,914,651.00	-10%
Brawner Builders, Inc.	$25,228,700.00	75%

BID PROTEST **YES** ☐ **NO** ☑

FUNDING SOURCE 100% **TOLL REVENUE**

TAB 4

VERBAL

TAB 5

MEMORANDUM

TO: MDTA Board
FROM: Mr. Allen W. Garman, Director of Treasury & Debt
SUBJECT: Investment Report
DATE: May 20, 2021

PURPOSE OF MEMORANDUM

The purpose of this item is to provide the Maryland Transportation Authority (MDTA) Board with a quarterly update on investment strategy and performance. This item was discussed in detail at the May 11, 2021 Finance Committee meeting and the committee supports the continuation of the current investment strategies for all accounts.

SUMMARY

For the trailing twelve-month period ended March 31, 2021, investments conformed to Investment Policy limitations. Portfolio structuring by account adhered to Board approved strategy. Total return performance for the General account was commensurate with the benchmark index. During the duration extension transition period for the M&O Reserve, the account will continue to remain short relative to the new benchmark index and portfolio duration will transition over several months. Total return performance for the M&O Reserve will not have a good comparable benchmark during the transition period.

The MDTA Board approved an investment strategy and benchmark change at its February 27, 2020 meeting to lengthen the average maturity of certain unrestricted reserves to 7.5-years from 3-years, as well as the associated *Effective Duration* (rate driven price volatility) to 7.0 from 3.0. Implementation of this strategy change was delayed as a result of the pandemic induced market volatility, distortions, and record low interest rates. At the November 2020 meeting, the Board approved a gradual transition for a small portion (14%) of the unrestricted cash held in the M&O Reserve. The Investment Committee will continue to update the Board periodically on the recommended timing for restructuring the remaining 86% of unrestricted reserves held in the General account.

INVESTMENT STRATEGY

The agency employs either a Matched Funding or Total Return approach for certain categories of accounts. Debt Service and Capital accounts are managed on a Matched Funding basis, with investment maturities matched to known or potential outflows. Unrestricted and Restricted Reserves are managed for Total Return, with consideration of the risk/return tradeoff associated with longer-term structures. Longer duration portfolios benefit from higher average annual returns over multiyear periods and tend to exhibit greater return volatility relative to shorter-term maturity structures.

The General account is benchmarked against a composite index of 1-5-year bullet agency indices. The blended composite index is fifty percent of the ICE BOFAML 1-3 Year Bullet Agency Index and fifty percent of the 3-5 Year Bullet Agency Index. Investment maturities are generally staggered from three-months to five-years, with overweight in the three- to five-year maturity bands and an effective duration target of approximately 3.0.

The M&O Reserve account began transitioning in December 2020 from the 1-5 year bullet agency benchmark to a new composite of 1-13 year Treasury Strip indices that approximates the effective duration of a laddered portfolio of 6-month to 15-year securities. The new strategy will lengthen the average maturity of the account to 7.5-years from 3-years, as well as the associated effective duration to 7.0 from 3.0. During the duration extension transition period, the portfolio will continue to remain short relative to the new benchmark index and total return performance for the account will not have a good comparable benchmark.

RELATIVE PERFORMANCE AND BENCHMARKING

The Unrestricted Reserves were positioned during the trailing twelve-months with respective portfolio effective durations averaging near the 1-5 year bullet agency benchmark. The General account's trailing total return performance of 0.88 percent was commensurate with the index's return of 0.62 percent, with the variance largely attributable to the short duration positioning in the rising rate environment. The M&O Reserve's trailing performance of 0.38 percent was between the old benchmark's return of 0.62 percent and the new benchmark's return of negative 4.77 percent. As noted above in the Strategy section, the M&O Reserve will continue to remain short relative to the new benchmark index during the duration extension transition period and total return performance for the account will not have a good comparable benchmark.

RECOMMENDATION

Approve the investment strategies for the current quarter. During the May 11 meeting, the Finance Committee concurred with the continuation of the current investment strategies for the unrestricted reserves.

TAB 6

MEMORANDUM

TO: MDTA Board
FROM: Mr. Allen W. Garman, Director of Treasury & Debt
Mr. Jim Walsh, MAA – Deputy Executive Director & CFO
SUBJECT: Nonrecourse Debt Update
DATE: May 20, 2021

PURPOSE OF MEMORANDUM

In response to recent bond defeasances and pandemic impacts on airport revenues, staff will provide an update on the WMATA and BWI nonrecourse financings. The update includes an explanation of pledged revenues, monthly flow of funds, and trust specific reserves.

SUMMARY

As a conduit issuer, the MDTA has financed nonrecourse debt for the Maryland Aviation Administration (MAA) to fund airport projects and Washington Metropolitan Area Transit Authority (WWMATA) for parking garages. These financings are individually secured by unique pledged revenues of parking garages and airport related projects and are not secured by the MDTA's toll revenues or revenues of the Maryland Department of Transportation (MDOT). The three airport pledged revenue categories include enplanement or Passenger Facility Charges (PFC), Consolidated Rental Car Facility fees (CRCF), and Parking Facility fees (Parking).

Annual debt service and reserves for the two remaining airport trusts are summarized in the table below.

Nonrecourse Debt
3/31/2021

Issue	Pledge Revenues	FY21 Debt Service	DS Funding	DSR Balance	Improvement Account	Coverage Reserve
BWI PFC	Passenger Facility Charge	25,453,894	Monthly 1/12	MADS	≈ 1.5 x Debt Service	N/A
BWI Rental Car	Rental Charge	9,068,348	Monthly 1/12	MADS	≈ 1.5 x Debt Service	15% of MADS

** MADS - Maximum Annual Debt Service*

BWI PFC Bonds

In 2012, 2014, and 2019, the MDTA issued a combined $335.1 million in five series of PFC backed revenue bonds for infrastructure improvement projects at BWI Marshall Airport. Pledged revenues are derived from a charge of $4.50 per enplaned passenger. The Series 2012 C PFC Bonds were issued as variable rate demand notes and receive credit enhancement from a Wells Fargo letter of credit.

Section 4.08(a) of the PFC Master Trust Agreement requires that the Improvements Fund be utilized to make up deficiencies in the funding of the Bond Fund. The Debt Service reserve would be tapped on the semi-annual payment dates to bondholders if both the revenues were inadequate and the Facility Improvements Fund was fully exhausted. The Improvements Fund is pledged to bondholders. Due to revenue shortfalls associated with the pandemic, the Improvements Fund has been utilized in recent months to fully fund the required debt service set asides. Ample reserves remain to meet debt service requirements.

BWI Rental Car Facility Bonds

The MDTA issued $117.3 million of taxable revenue bonds in 2002 to finance construction of the CRCF, a shuttle bus maintenance facility, vehicle storage facilities, and related roadway and utility infrastructure improvements. Pledged revenues are derived from a fee of $3.75 per day per rental car transaction.

Section 4.08 of the CRFC Master Trust Agreement provides for the use of Improvement Fund to make transfers to the Bond Fund or Coverage Fund. In the event of a debt service deficiency in the Bond Fund on a payment date, funds must be transferred from the Coverage Fund or Debt Service Reserve.

Due to revenue shortfalls associated with the pandemic, the Improvement Fund has been utilized in recent months to fully fund the required debt service set asides. Advance set asides from the Improvement fund to the Bond Fund or Coverage fund also serve to improve debt service coverage. The MDTA will make an advance transfer of approximately $6 million from the Improvement Fund during the current bond year to maintain debt service coverage above the 1.5-times target and well above the 1.25-times Rate Covenant.

BWI Parking Bonds

The Series 2012 BWI Parking bonds were fully defeased in February 2021 with proceeds of General Airport Revenue Bonds issued by MDOT. Principal and interest will be paid from the escrow investments through the March 1, 2022 call date. The MDTA's leasehold interest and prior BWI Parking trust agreement terminated with the legal defeasance of all outstanding bonds under the trust.

WMATA Parking Bonds

The Series 2014 WMATA parking garage bonds were legally defeased with a cash transfer from the WMATA surcharge account (held externally by WMATA) to the BNYM escrow account in

April 2021. Principal and interest will be paid from the escrow investments through the July 1, 2022 call date. The MDTA's leasehold interest and WMATA Parking trust agreement terminated with the legal defeasance of all outstanding bonds under the trust.

Escrow Debt Service				*Escrow Investments*			
Date	**Principal**	**Interest**	**Total P&I**	**Face Amount**	**Security**	**Maturity**	**Cusip**
7/1/2021	1,870,000.00	298,706.25	2,168,706.25	2,160,000.00	Treasury Bill	7/1/2021	912796B40
1/1/2022		251,956.25	251,956.25	242,000.00	Treasury Bill	12/30/2021	912796A90
7/1/2022	15,340,000.00	251,956.25	15,591,956.25	15,582,000.00	Treasury Note	6/30/2022	912828ZX1
	17,210,000.00	802,618.75	18,012,618.75				

Escrow Cash Flows			
	7/1/2021	**1/1/2022**	**7/1/2022**
Beginning Residual Cash	-	952.46	815.00
Coupons / Maturities			
Treasury Bill 7/1/21	2,160,000.00		
Treasury Bill 12/30/21		242,000.00	
Treasury Note 6/30/22	9,658.71	9,818.79	15,591,658.71
Escrow Cash Available	2,169,658.71	252,771.25	15,592,473.71
Debt Service	(2,168,706.25)	(251,956.25)	(15,591,956.25)
Ending Residual Cash	952.46	815.00	517.46

TAB 7

MEMORANDUM

TO: MDTA Board
FROM: Mr. Jeffrey Brown, Director of Budget
SUBJECT: Fiscal Year 2021 Operating Budget vs. Actual Spending Review
DATE: May 20, 2021

PURPOSE OF MEMORANDUM

The purpose of the memorandum is to advise the Members of the MDTA Board on the status of year-to-date spending against the Fiscal Year (FY) 2021 Operating Budget and the possibility of a budget amendment request.

SUMMARY

As of March 31, 2020, 64% of the budget was spent compared to a target of 73%. Except for Object 11(Additional Equipment – 105% spend) and Object 13 (Fixed Charges -98% spend), all other Objects were at or below the targeted spending level. The primary drivers for the underspending are timing or seasonality issues (*e.g.*, delayed invoicing and/or expected expenses to occur in later quarters) and the effects of COVID-19 (*e.g.*, increased teleworking, all-electronic tolling, etc.). Although year-to-date expenses are below the targeted spending level, when considering higher than anticipated spending trends in certain line items and invoice lag, the total year-end expenditures, after capturing all accrued FY 2021 expenses, may exceed the overall budget by a projected amount less than $5 million.

In order to reduce the revenue impacts from COVID-19, All-Electronic Tolling, and 3G transition delays, the FY 2021 budget, inclusive of any amendments, was reduced by $30.1M compared to the FY 2020 final budget. For certain accounts the reductions were too high. For example, line item 0873, *E-ZPass* Service Center, was reduced anticipating operating savings from TransCore and Kapsch earlier in the fiscal year than realized. FY 2021 also had a considerably larger snow season than FY 2020. Additionally, the MDTA is incurring unplanned personnel expenses for COVID-19 response pay and related expenses as well as reimbursable expenses are exceeding the budget. MDTA anticipates savings in certain line items; however, the possibility exists in which these savings will not completely offset the overspent line items, at which a budget amendment would be requested in June.

In the coming month, the MDTA will continue to monitor its operating budget closely and all Chiefs and Directors are constraining their budgets to the extent possible without negatively impacting the agency. Additionally, conversations are ongoing with the Secretary's Office about the possibility of receiving funding made available through the Federal American Rescue Plan Act. The receipt of these funds will most likely occur in FY 2022.

ANALYSIS

Budget analysis threshold: More than $500,000 budgeted with variances greater than +/- 5% of the targeted spending level.

All objects, excluding Additional Equipment (Object 11) and Fixed Charges (Object 13) are at or below targeted spending levels by more than 5%:

- Communications (Object 3) is below budget at 29% spent. The invoice for the State Radio System ($1.5 million) has not been received – this drives the under-performance. Excluding this charge, the rest of the Object spending is at 63% of budget.

- Object 4 (Travel) is below budget at a 5% spend. Reduced travel due to COVID-19 (more teleworking and telelearning, postponement of in-person conferences) and seasonality (heavier travel in third/fourth quarter) drive the performance.

- Fuel and Utilities (Object 06) is below budget at a 51% spend. COVID-19 effects include the transition to cashless tolling, fewer toll collectors, and increased teleworking, which reduces electrical needs. Some billing delays have also reduced the expected spend.

- Motor Vehicle Operations and Maintenance (Object 07) is below budget at a 51% spend. Due to COVID-19, spending on gas and vehicle maintenance for both passenger and heavy-duty vehicles is reduced due to lower activity and increased work from home. The MDTA also replaced many of its older fleet vehicles, which resulted in less vehicle maintenance and more costs falling under warranty.

- Contractual Services (Object 08) is below budget at a 61% spend. Significant spending variances include:
    - Advertising (0801) is at a 31% spend. The delay in the 3G go-live date and summer campaign expenses, which occur later in the year, account for the variance in this line item. This line item is expected to approach its budgeted level by the end of the fiscal year.
    - Engineers (0807) are at a 48% spend. Drivers include seasonality of work (heavier in the 3rd and 4th quarters), a lag in invoicing (especially for sub-contract work), and the amount of on-call capital improvement work. Additionally, COVID-19 has resulted in delays in field work on some projects. Moreover, with the AET initiatives, more capital work is done utilizing Office of Engineering and Construction on-call contracts. Heavier expenses are expected in the 4th quarter which will result in this line item approaching its budgeted level.

  - Janitorial Services (0813) are below target with a 57% spend, primarily due to construction shutting down some buildings for a period and non-access to buildings early in the year.
  - Training (0819) is at a 55% spend. COVID-19 has restricted usage resulting in cancelled or postponed training.
  - Security Services (0823) is at a 31% spend. This is based on fixed rates and service repairs requests. Service repair requests dictate the level of spending in this area. Less building usage results in less repairs to security doors and locks.
  - Fiscal Services (0829) is at a 55% spend. *E-ZPass* retail fees are down due to reduced traffic associated with COVID-19 and less credit card fee processing from the delay in NOTDs.

- Supplies & Materials (Object 09) is on budget at a 76% spend:
  - Roadway Maintenance Materials (0905) is at a 52% spend due to lower traffic volume (COVID-19), limited maintenance activities (COVID-19), and seasonality (expenses ramp up in the spring).
  - Salt (0906) is at a 146% spend due to the February storms. Expenses under this line item are expected to be limited going forward.
  - *E-ZPass* Transponders (0951) is at a 67% spend. The agency is currently using its preexisting inventory and anticipates reducing costs to save money in FY 2021. This line item was reduced in the FY 2021 Amended Budget.

- Replacement Equipment (Object 10) is at a 54% spend. Equipment will not be ordered or received until later in the year.

- Additional Equipment (Object 11) exceeded the budget at a 105% spend primarily due to Peripherals (Sub-Object 1136). HR scanners that were previously expected to be expensed in FY 2020 were purchased in FY 2021. Absent the HR scanners, this object is at a 52% spend.

- Fixed costs (Object 13) is at a 98% spend primarily due to receipt of one-time insurance payments. This line item is expected to be slightly over budget.

ATTACHMENT

- Budget vs Actual by Object

MDTA OPERATING FUND
Bgt vs. Actual by Obj and RC Detail
Summary of All Units
For the Nine Months Ending Wednesday, March 31, 2021

	Budget	YTD Expense	Balance	% Spent
OBJECT 01 Salaries and Wages				
0101 REGULAR EARNINGS	$100,482,404	$58,399,682	$42,082,722	58.12%
0102 ADDITIONAL ASSISTANCE	431,276		431,276	0.00%
0104 OVERTIME EARNINGS	3,547,886	1,889,426	1,658,460	53.25%
0104 OVERTIME EARNINGS - SNOW	1,424,861	1,421,260	3,601	99.75%
0105 SHIFT DIFFERENTIAL	898,473	40,359	858,114	4.49%
0110 MISCELLANEOUS P/R ADJUSTMENTS	2,174,895	842,523	1,332,372	38.74%
0111 ACCRUED LEAVE PAYMENTS	21,456	486,758	(465,302)	2268.63%
0112 RECLASSIFICATIONS	522,728		522,728	0.00%
0151 SOCIAL SECURITY CONTRIBUTIONS	7,101,439	43,645	7,057,795	0.61%
0152 HEALTH INSURANCE	16,352,421	250,807	16,101,614	1.53%
0154 RETIREE'S HLTH INSURANCE PREM	8,514,347	121,072	8,393,275	1.42%
0161 EMPLOYEES RETIREMENT SYSTEM	11,587,843	32,185	11,555,658	0.28%
0165 STATE POLICE RETIREMENT SYSTEM	2,894,601	1,018,966	1,875,635	35.20%
0169 LAW ENFORCEMNT OFF PENSION SYS	17,541,828		17,541,828	0.00%
0171 BURDEN EXPENSE		51,826,608	(51,826,608)	0.00%
0174 UNEMPLOYMENT COMPENSATION	11,468	(428)	11,896	(3.73%)
0175 WORKERS COMPENSATION	4,711,903	154,244	4,557,659	3.27%
0189 TURNOVER	(780,772)		(780,772)	0.00%
0199 OTHER FRINGE BENE - CLOTH ALLOW	814,733	591,058	223,675	72.55%
Total Object 01	**178,253,790**	**117,118,163**	**61,135,626**	**65.70%**
Object 02 Technical and Special Fees				
0202 PER DIEM PAYMENTS	125,000	78,000	47,000	62.40%
0209 ADMIN/MGMT SERVICES SUPPORT		665	(665)	0.00%
0220 SPECIAL PAYMENTS PAYROLL	336,681		336,681	0.00%
Total Object 02	**461,681**	**78,665**	**383,016**	**17.04%**
Object 03 Communications				
0301 POSTAGE	54,499	65,157	(10,658)	119.56%
0302 TELEPHONE	224,170	184,057	40,113	82.11%
0303 TELECOMMUNICATIONS	580,199	301,629	278,570	51.99%
0305 STATE PAID TELECOMMUNCIATIONS	1,500,000		1,500,000	0.00%
0306 CELL PHONE EXPENDITURES	407,275	245,784	161,491	60.35%
Total Object 03	**2,766,143**	**796,626**	**1,969,517**	**28.80%**
Object 04 Travel				
0401 IN STATE/ROUTINE OPERTN TRAVEL	34,869	13,327	21,542	38.22%
0402 INSTATE/CONF/SEMNR/TRNG TRAVEL	33,742	1,103	32,639	3.27%
0403 OUTSTATE/ROUTINE OPERTN TRAVEL	24,763	75	24,688	0.30%
0404 OUTSTATE/CONF/SEMNR/TRNG TRAVL	163,698	(2,925)	166,623	(1.79%)
Total Object 04	**257,072**	**11,580**	**245,492**	**4.50%**
Object 06 Fuel and Utilities				
0603 FUEL-OIL #2	195,049	62,712	132,337	32.15%
0606 FUEL-NATURAL GAS/PROPANE	215,733	110,480	105,253	51.21%
0620 UTILITIES-ELECTRICITY	3,224,392	1,750,641	1,473,751	54.29%
0621 UTILITIES-WATER/SEWAGE	306,556	76,439	230,117	24.93%
Total Object 06	**3,941,730**	**2,000,271**	**1,941,459**	**50.75%**
Object 07 Motor Vehicle Operations and Maintenance				
0701 PURCH VEH-CAR,LIGHT TRUCK	913,500	985,648	(72,148)	107.90%

	Budget	YTD Expense	Balance	% Spent
0702 VEHICLE GAS & OIL	1,840,923	735,776	1,105,147	39.97%
0703 VEHICLE MAINTENANCE & REPAIR	1,604,017	891,190	712,827	55.56%
0703 VEHICLE MAINTENANCE & REPAIR-SNOW	7,715	3,623	4,092	46.96%
0704 INSURANCE	407,863		407,863	0.00%
0721 VEHICLE GAS & OIL - WATERCRAFT	38,951	10,000	28,951	25.67%
0722 VEHICLE MAINT & REPAIR - WATERCRAFT	53,463	31,637	21,826	59.18%
0724 BOAT SLIP RENTAL/LAUNCHING FEES	4,200	1,400	2,800	33.33%
0730 PURCH VEH-OTHER LAND VEH - DUMP, TRAC	448,500	3,735	444,765	0.83%
0731 GAS & OIL - OTHER LAND VEHICLES	880,544	511,187	369,357	58.05%
0732 LG VEHICLE MAINT & REPAIR	1,912,275	968,373	943,902	50.64%
0732 LG VEHICLE MAINT & REPAIR-SNOW	33,449	22,367	11,082	66.87%
0789 COMMUTER CHARGE	(6,100)	(8,235)	2,135	135.00%
0799 OTHER MOTOR VEHICLE CHARGES	54,379	841	53,538	1.55%
Total Object 07	**8,193,679**	**4,157,542**	**4,036,137**	**50.74%**
Object 08 Contractual Services				
0801 ADVERTISING/LEGAL PUBLICATION	3,104,003	966,524	2,137,479	31.14%
0802 APPLICATIONS SOFTWARE MAINTENANCE	106,960	3,400	103,560	3.18%
0804 PRINTING/REPRODUCTION	45,800	16,599	29,201	36.24%
0805 BOOKBINDING/PHOTOGRAPHIC		149	(149)	0.00%
0807 ENGINEERS	3,100,000	1,826,982	1,273,018	58.93%
0807 ENGINEERS - Environmental (MA0967)	2,250,000	1,549,684	700,316	68.87%
0807 ENGINEERS - Highways (MA0983)	250,000	12,113	237,887	4.85%
0807 ENGINEERS - Architectural (MA2395)	235,000	48,287	186,713	20.55%
0807 ENGINEERS - ITS/Electrical (MA2226)	610,000	304,400	305,600	49.90%
0807 ENGINEERS - Structural (MA2055)	600,000	602,628	(2,628)	100.44%
0807 ENGINEERS - Traffic (MA2181)	1,440,000	769,935	670,065	53.47%
0807 ENGINEERS - Asset Mgmt (MA2869)	500,000	111,143	388,857	22.23%
0807 ENGINEERS - On-Call (All MR)	2,325,000	2,670,847	(345,847)	114.88%
0807 ENGINEERS - Annual Inspections (MA2471)	14,895,000	4,586,416	10,308,584	30.79%
0808 EQUIPMENT RENTAL	511,889	265,957	245,932	51.96%
0809 EQUIPMENT REPAIRS & MAINT	160,623	7,462	153,161	4.65%
0810 EXTERMINATION	16,846	4,336	12,510	25.74%
0812 BUILDING/ROAD REPAIRS & MAINT	10,150,711	3,574,023	6,576,688	35.21%
0812 BUILDING/ROAD REPAIRS & MAINT - On-Call		3,534,839	(3,534,839)	0.00%
0813 JANITORIAL SERVICES	1,193,549	682,419	511,130	57.18%
0814 GROUNDS MAINTENANCE	46,605	3,140	43,465	6.74%
0815 LAUNDRY	5,081	1,109	3,972	21.83%
0817 LEGAL SERVICES	163,279	59,559	103,720	36.48%
0819 EDUCATION/TRAINING CONTRACTS	638,308	349,540	288,768	54.76%
0820 MEDICAL CARE	205,720	66,897	138,823	32.52%
0821 MGMT STUDIES AND CONSULTANTS	1,393,195	912,936	480,259	65.53%
0823 SECURITY SERVICES	1,067,830	334,877	732,953	31.36%
0824 LABORATORY SERVICES	48,082	39,774	8,308	82.72%
0825 VETERINARIAN	29,321	16,277	13,044	55.51%
0826 FREIGHT AND DELIVERY	17,247	2,076	15,171	12.04%
0827 TRASH AND GARBAGE REMOVAL	408,883	351,575	57,308	85.98%
0828 OFFICE ASSISTANCE	301,324	6,092	295,232	2.02%
0829 FISCAL SERVICES	14,040,000	7,685,890	6,354,110	54.74%
0841 DP CENTRAL PROCESS SVC	881,600	487,315	394,285	55.28%
0843 DP COMMUNICATIONS CONTROLLERS SVC	110,000	272,554	(162,554)	247.78%
0849 TELECOMM LINES, MODEMS & CONTROLLER	95,741	59,572	36,169	62.22%

	Budget	YTD Expense	Balance	% Spent
0854 COMPUTER MAINTENANCE CONTRACTS	183,160	64,129	119,031	35.01%
0858 SOFTWARE LICENSES	32,132	14,164	17,968	44.08%
0861 APPL SOFTWARE ACQUISITION		64,137	(64,137)	0.00%
0862 APPL SOFTWARE MAINTENANCE	1,390,046	710,554	679,492	51.12%
0864 SYSTEMS SOFTWARE MAINTENANCE	790,460	561,523	228,937	71.04%
0865 OUTSIDE SVCS-SYS ANALYSIS&DSGN	3,765,500	3,068,428	697,072	81.49%
0866 OUTSIDE SVCS-PROGRAMMING	385,000	244,182	140,818	63.42%
0869 OUTSIDE SVCS-COMPUTER USAGE	355,255	24,630	330,625	6.93%
0873 OUTSIDE SVC - E-Z PASS SVC CENTER	28,260,000	21,624,493	6,635,508	76.52%
0874 OFFICE OF ATTORNEY GENERAL FEE	39,064	39,064		100.00%
0875 RETIREMENT AGENCY ADMIN FEE	225,063	219,157	5,906	97.38%
0876 STATEWIDE DOIT SERVICES	51,706		51,706	0.00%
0894 STATEWIDE PERSONNEL SYS ALLOC	41,190		41,190	0.00%
0899 OTHER CONTRACTUAL SVC-NON DP	2,686,824	1,217,771	1,469,052	45.32%
Total Object 08	**99,152,997**	**60,039,556**	**39,113,441**	**60.55%**
Object 09 Supplies and Materials				
0901 AGRICULTURE	32,839	7,374	25,465	22.45%
0902 OFFICE SUPPLIES	343,991	135,852	208,139	39.49%
0903 ELECTRICAL MATERIALS	314,024	102,862	211,162	32.76%
0904 BUILDING & HOUSEHOLD SUPPLIES	352,646	161,058	191,588	45.67%
0905 ROADWAY MAINT MATERIALS	582,034	303,003	279,031	52.06%
0906 SALT/SNOW MELTING MATERIALS	1,241,976	1,818,147	(576,171)	146.39%
0908 HOUSEKEEPING SUPPLIES	80,869	37,214	43,655	46.02%
0909 MEDICAL SUPPLIES	28,441	9,406	19,035	33.07%
0912 WEARING APPAREL-UNIFORMS EMPL	848,021	517,417	330,604	61.01%
0915 LIBRARY SUPPLIES	24,640	12,341	12,299	50.09%
0917 SMALL TOOLS	323,846	158,202	165,644	48.85%
0918 VETERINARY SUPPLIES	27,474	6,880	20,594	25.04%
0920 FOOD	156,170	41,690	114,480	26.70%
0926 DATA PROCESSING SUPPLIES	36,434	1,986	34,448	5.45%
0932 MICROCOMPUTER OPER SYS SFTWRE	65,000	65,000		100.00%
0933 SOFTWARE UPGRADES		80	(80)	0.00%
0934 AMMO GUNS FIRING RANGE SUPPLIES	326,808	663,286	(336,478)	202.96%
0951 E-ZPASS TRANSPONDERS	2,700,000	1,811,511	888,490	67.09%
0999 OTHER SUPPLIES AND MATERIALS	301,463	94,478	206,985	31.34%
Total Object 09	**7,786,676**	**5,947,787**	**1,838,889**	**76.38%**
Object 10 Replacement Equipment				
1003 REPL CLEANING EQUIPMENT		2,030	(2,030)	0.00%
1013 REPL MAINTENANCE & BUILDING EQUIP	279,000	19,892	259,108	7.13%
1015 REPL OFFICE EQUIPMENT	22,700	37,263	(14,563)	164.15%
1019 REPL RADIOS & ELECTRONIC EQUIPMENT	59,000		59,000	0.00%
1033 REPL DP EQUIP-MICROCOMPUTER	199,000	288,907	(89,907)	145.18%
1034 REPL DP EQUIP-WORKSTATIONS		3,005	(3,005)	0.00%
1036 REPL DP EQUIP-PERIPHERALS	17,000	12,117	4,883	71.28%
1099 OTHER REPLACEMENT EQUIPMENT	163,806	38,303	125,503	23.38%
Total Object 10	**740,506**	**401,516**	**338,990**	**54.22%**
Object 11 Additional Equipment				
1102 ADDT'L AUDIO-VISUAL EQUIP		12,717	(12,717)	0.00%
1103 ADDT'L CLEANING EQUIPMENT		40,883	(40,883)	0.00%

1109 ADDT'L HUMAN ENVIRONMENTAL EQUIP	1,000		1,000	0.00%
	Budget	**YTD Expense**	**Balance**	**% Spent**
1113 ADDT'L MAINTENANCE & BUILDING EQUIP	86,000	2,460	83,540	2.86%
1115 ADDT'L OFFICE EQUIPMENT	11,500		11,500	0.00%
1133 ADDT'L DP EQUIP-MICROCOMPUTER	100,000		100,000	0.00%
1136 ADDT'L DP EQUIP-PERIPHERALS		142,476	(142,476)	0.00%
1199 OTHER ADDITIONAL EQUIPMENT	67,955	81,435	(13,480)	119.84%
Total Object 11	**266,455**	**279,972**	**(13,517)**	**105.07%**
Object 13 Fixed Charges				
1301 RENT	500,000	294,651	205,349	58.93%
1302 INSURANCE COVERAGE PAID TO STO	460,138	19,116	441,022	4.15%
1303 RENT PAID TO DGS	1,140		1,140	0.00%
1304 SUBSCRIPTIONS	25,191	20,417	4,774	81.05%
1305 ASSOCIATION DUES	258,232	191,624	66,608	74.21%
1308 LICENSES	8,300	3,196	5,104	38.51%
1309 INSURANCE (NON STO PAYMENTS)	4,233,316	4,510,289	(276,973)	106.54%
1320 BAD DEBT EXPENSE	11,600	333,063	(321,463)	2871.24%
Total Object 13	**5,497,917**	**5,372,357**	**125,560**	**97.72%**
Total All Objects	**307,318,645**	**196,204,035**	**111,114,610**	**63.84%**

Note: The FY 2021 budget is inclusive of all budget amendments. The amended budget totals a net $16.3 million below the FY 2021 Final Operating Budget.

TAB 8

MEMORANDUM

TO: MDTA Board
FROM: Ms. Jeanne Marriott, Capital Program Manager
SUBJECT: Third Quarter Review of Fiscal Year 2021 Capital Budget vs. Actual Spending
DATE: May 20, 2021

PURPOSE OF MEMORANDUM

The purpose of the memorandum is to update the MDTA Board on the status of actual Fiscal Year (FY) 2021 spending against the FY 2021 capital budget in the FY 2021-2026 Draft Consolidated Transportation Program (CTP). This information was presented to the MDTA Finance Committee on May 11, 2021.

SUMMARY

As of March 31, 2021, 46% of the FY 2021 budget was spent as compared to the targeted spending level of 75%. The total budget for FY 2021 is $543.3 million. The actual spending through the third quarter was $252.1 million.

ANALYSIS

Twenty-six of the 105 projects budgeted in FY 2021 were within the acceptable spending limits of 50% to 100% (plus or minus 25% of the 75% target). Due to normal lags in invoicing, generally two months, a plus or minus 25% threshold was determined to be reasonable.

Actual spending through the third quarter for seven projects budgeted for more than $10 million each in FY 2021 was $151.4 million. The seven projects are detailed in Attachment A.

ATTACHMENT

- Attachment A – FY 2021 Capital Program Spending – Projects with FY 2021 Budget Over $10 Million

Attachment A

FY 2021 Capital Program Spending
Compared to Draft FY 2021-2026 CTP Budget
Projects with FY 2021 Budget Over $10 Million

Project Name	FY 2021 Budget Draft FY21-26 CTP ($000)	FY 2021 Actual thru 3/31/2021 ($000)	Q3 Spend Rate	FY 2021 Amount Remaining ($000)
Replace Nice/Middleton Bridge	$198,604	$92,082	46%	$106,522
I-895 Bridge Replacement	$56,560	$33,907	60%	$22,653
Replace 5KV Feeder on EB Span and Add Redundant Cable to EB & WB Spans	$24,380	$5,120	21%	$19,260
Replace Electronic Toll Collection and Operating System - 3rd Generation	$16,178	$6,147	38%	$10,031
Rehabilitate Fort McHenry Tunnel Vent Fans	$15,000	$5,214	35%	$9,786
Deck Rehabilitation and Miscellaneous Modifications to Westbound Span	$12,238	$5,538	45%	$6,700
I-95 Improvements between MD 152 and MD 24	$10,708	$3,354	31%	$7,354
Total	**$333,668**	**$151,362**	**45%**	**$182,306**

TAB 9

MEMORANDUM

TO: MDTA Board
FROM: Ms. Jeanne Marriott, Capital Program Manager
SUBJECT: Consolidated Transportation Program (CTP) Process/Additions
DATE: May 20, 2021

PURPOSE OF MEMORANDUM

The purpose of the memorandum is to provide the MDTA Board with an overview of the MDTA Consolidated Transportation Program (CTP) Process and an update on the additions to the capital program. This information was presented to the Capital Committee on May 6, 2021.

SUMMARY

The CTP is MDTA's six-year plan for the capital program and includes the current year, the upcoming year, and the four succeeding planning years. The CTP is updated twice a year and brought to the Board Members for approval in June as the Draft CTP and in November as the Final CTP.

After approval by the Board Members in June, the Draft CTP is presented as part of the Maryland Department of Transportation (MDOT) CTP Tour to local elected officials and citizens throughout the State of Maryland for review and comment. It is then revised and submitted, after MDTA Board approval in November, as the Final CTP as part of the Governor's budget to the Maryland General Assembly in January. This process is required by statute and applies to MDTA as well as the other MDOT business units.

The CTP is divided into three parts: Construction Program – Major Projects, Development and Evaluation (D&E) Program – Major Projects, and System Preservation – Minor Projects.

The Construction Program – Major Projects and System Preservation – Minor Projects programs include ongoing projects and those projects which are scheduled to begin construction within the six-year period. Only those projects that the MDTA can afford to complete, given the most recent revenue forecast, are included in the CTP. Project work phases included in the CTP are engineering, right-of-way acquisition, and construction. Previously the planning phase was included in the CTP but is now part of the operating budget.

The D&E Program contains those major projects which are being prepared for possible future addition to the Construction Program. Work included in the D&E Program is primarily preliminary design (up to 60% complete plans). Projects are moved from the D&E Program to the Construction Program as funds and resources become available, based on the merits of the projects. Currently, there are no MDTA projects in the D&E Program. Those projects previously in the D&E Program have been funded and moved to the Construction Program.

Funding availability is based on the MDTA's six-year financial forecast which considers estimates of traffic and revenue, the operating budget and capital budget, debt service payments, the potential need for future bond sales and toll increases, and compliance with financial standards (Trust Agreement rate covenant, debt service coverage, unrestricted cash balance).

New projects originate from five sources.

- Long-Range Capital Needs
- Inspection Findings
- Regulatory Compliance
- Increased Capacity Needs
- Local Priority Letters/Legislative Requests

The Long-Range Capital Needs (LRCN) is primarily a list of planned rehabilitation or replacement projects based on life cycle. The Office of Engineering and Construction (OEC), the Division of Operations, the Division of Planning and Program Development (DPPD), and other stakeholders annually review the useful life of facility components and estimate costs and timelines to rehabilitate or replace the components. The expected useful life of a component does not provide an exact expiration date but gives an idea of when the MDTA should begin planning and budgeting to address it.

Inspection findings are used in tandem with life cycle estimates to confirm rehabilitation or replacement is necessary as scheduled or to expedite a project when it is needed ahead of schedule. Additionally, inspections can reveal the opportunity for smaller scale repairs that can prevent a facility or component from degrading to the point of needing replacement via a larger, more expensive design-bid-build project. These smaller scope repairs can be diverted to on-call contracts. On-call contracts are a critical part of the program approach to system preservation.

The remaining sources – regulatory compliance, capacity needs, and local priorities – make up a smaller proportion of the CTP. Regulatory compliance includes projects for EPA-mandated storm water management. Increased capacity needs are based on traffic forecast recommendations. Local priorities are established each year as counties and Baltimore City are asked to submit a list of priorities for the state transportation system.

The Fiscal Year (FY) 2022-2027 Draft CTP, to be presented for approval in June, includes four new projects. The four projects are detailed in Attachment A.

ATTACHMENT

- Attachment A – New Projects Added to the FY 2022-2027 MDTA Capital Program

Attachment A

New Projects Added to the FY 2022-2027 MDTA Capital Program

Civil Rights Compliance Information Management System (aka PRISM)
Multi-Area (Pin 2545)
This project will acquire and implement an IT solution for monitoring the federal civil rights requirements for the Nice/Middleton Bridge Design/Build project. Use of this software will shorten the delivery timeline and improve project tracking.

Purchase Card Information System (PCARD)
Multi-Area (Pin 2546)
Replace the existing outdated OpenText Purchase Card Information System (PCARD).

On-Call Miscellaneous Paving Repair
Multi-Area (Pin 2549)
This contract provides for repairs and rehabilitation of bituminous concrete and Portland cement concrete pavement and the removal and replacement of pavement markings along MDTA roadways. The existing on-call paving repairs contract expires in January 2022.

Environmental On-Call Phase IV
Multi-Area (Pin 2551)
This project will provide an on-call contract to perform drainage and stormwater Best Management Practices (BMPs) remediation. The scope of work includes labor, equipment, and materials necessary to perform miscellaneous repairs, upgrades, replacements, rehabilitation, and new construction to stormwater assets as directed by the project manager. This covers improvements to storm drain systems, stormwater management BMPs, slopes, and more in support of system preservation and meeting compliance requirements for stormwater permits related to National Pollution Discharge Elimination Systems (NPDES). This work may be required on any portion (bridge, tunnel, highway, building, and all appurtenances) of any of the Authority's facilities.

TAB 10

MEMORANDUM

TO: MDTA Board
PRESENTED BY: Ms. Deb Sharpless, CPA, Chief Financial Officer
Mr. Will Pines, PE, Chief Operations Officer
SUBJECT: Third Generation Electronic Toll Collection (3G ETC) System Post-Transition, Traffic & Revenue and Post Go-Live Backlog Plan Update
DATE: May 20, 2021

PURPOSE

To brief the Maryland Transportation Authority (MDTA) Board on the 3G ETC post-transition, traffic & revenue, and post go-live backlog plan updates.

SUMMARY

TransCore and Kapsch's systems went live on April 29, 2021. Post-transition and software development activities continue. Toll revenue continues to underperform the official financial forecast; however, the MDTA expects to end the fiscal year complying with its financial standards. Implementation of the plan to address the backlog of unprocessed transactions is ongoing.

ATTACHMENTS

- 3G ETC System Update Presentation

Electronic Tolling

Post Transition Operations and Traffic & Revenue

MDTA Board Meeting

May 20, 2021

Post-Transition Operations

Key Milestones

Milestone	Date Range
CSC & Backoffice Go-Live (Complete)	4/29 7:00 AM
Go-Live Plus 30 Days: Software Release	4/30 to 5/30
Go-Live Plus 60 Days: Software Release	6/1 to 6/30
System Acceptance Test	7/01 to 7/30
Post SAT Software Release	8/1 to 11/1

Acceptance Period

- Go-live + 180 days address system defects & complete deferred functionality

Key Focus Areas

Software Reports & Documentation

- Finalize outstanding reports and documentation

Post-Transition & Backlog Tasks

- Tightly monitor schedule & coordination between MDTA and vendors
- Queue transactions for processing and resolve issues

QA/QC & Lane Maintenance Improvements

- Accountability for timeliness of resolution for identified issues
- Enforcement of contractual requirements
- Consistent pro-active approach to the maintenance tasks
- Improving image quality

Systems Performance & Storage

- Complete set-up of additional disk space for backlog transactions
- Performance Testing

Key Focus Areas (continued)

System Acceptance & Key Performance Indicators (KPI)

- Finalize System Acceptance Testing Plan
- Plan and test KPI

Contract Administration & Operational Functions

- Coordinating responsibilities & communication across IT, Operations and Finance
- Standing up contract administration tools & processes
- Forming cross-functional workgroups

Post Go-Live Software Releases

- Prioritizing go-live defects, and three (3) pre-30 day releases completed
- Develop, deploy & test 30- and 60-day releases
  - 30 day planned release is on schedule
  - Known defects and functionality addressed post go-live
  - Fixes agreed to by MDTA & TransCore
  - Interim work-arounds established
- Develop, deploy & test Post System Acceptance Test (SAT) releases
  - Less critical defects and functionality scheduled after the 90-day SAT
  - Address deferred functionality (e.g., mobile app)

Post Go-Live Risk Tracking

Call Center

- First week following go-live daily call volume in excess of 10,000 and wait times in excess of 1 hour
  - Backlog of call backs & webchat closed every day (no roll over to next day)
  - Staffing more than 120 customer representatives at peak periods
  - Reallocating resources to cover phone & webchat, as needed
- Call volumes and wait times are declining, as expected
  - Averaging between 5,000 to 7,000 daily calls with wait times just over 20 minutes
- Call volumes expected to increase when mailhouse resumes in June

Transaction & Backlog Processing:

- Transactions released manually based on a pre-defined schedule
  - Tight coordination with MDTA and vendors to maintain processing
  - Image review is anticipated to be the biggest constraint at this time
- Lockbox backlog processing planned to be current by next week
  - Will resume mailhouse escalations, including citations
  - NOTD mailings anticipated to resume in June

Post Go-Live Risk Tracking (Cont'd.)

System Functionality and Performance:

- Continue to triage and resolve software bugs

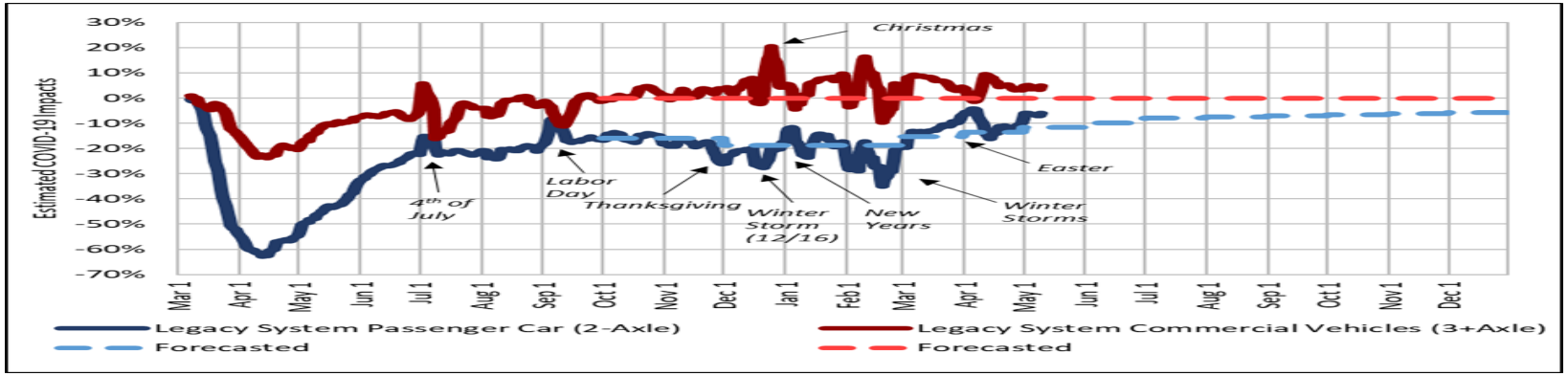
QA/QC

- NOTD & Citation image quality (dark)
  - Task force established; analyzing & meeting 2 times per week
  - Test additional lighting at a plaza & AET location
  - Evaluating options for addressing
  - Enlarged image on NOTD mailings

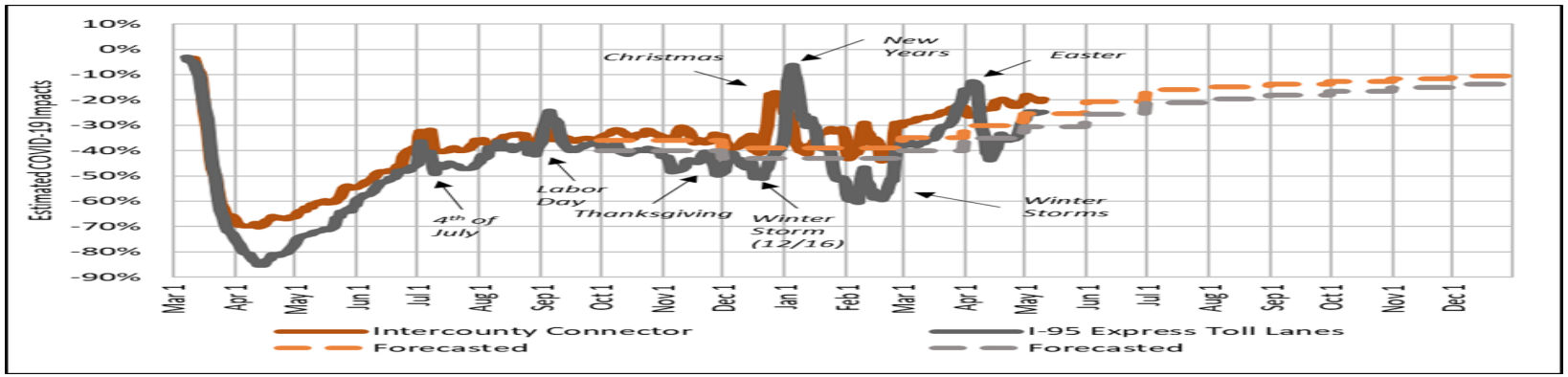
Traffic & Revenue

COVID-19 Forecasted Traffic Impacts vs. Actual

Legacy Facilities



ICC & ETL Facilities



- Legacy commercial vehicle traffic continue to outperform forecast; slight decline Easter weekend.
- Legacy passenger car traffic showed strong recovery through March, peaking at Easter. Traffic decreased after the holiday but returned to levels above forecast by the first week of May.
- ICC traffic shows an ongoing strong recovery through April and the first week of May, outperforming forecast.
- I-95 ETL traffic tracked within forecast in March and ramped up to outperform by Easter. Traffic fluctuated after the holiday through the first week of May, but within forecasted range.

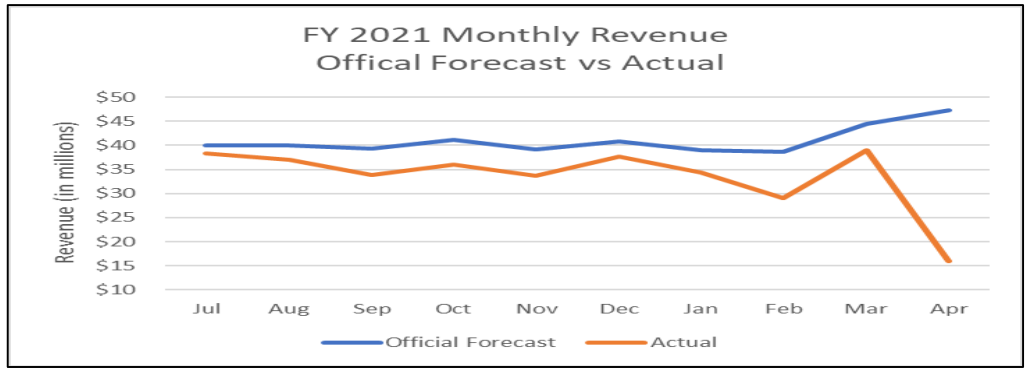
Key Takeaway: Traffic is meeting or exceeding the COVID-19 forecast

Revenue
Actual vs Forecast

Official and Unofficial Forecasts

- FY2021 actual revenue expected to be below the official forecast by ~$72M
- Unofficial forecast results in 2.5x debt service coverage (DSC)
- 2.0x DSC achieved with revenue ~$100M* below forecast
- FY2022 forecast expected to be above forecast by ~$56M

Official	$ 511.6M
Unofficial	$ 439.8M



April Actual Revenue						Projected April Revenue w/o No Cutover
E-ZPass Transaction Type	Facilities	Date Range	# of Days	% of Month	Actual Revenue	
Legacy: Home on Home		4/1-16/21	16	53%	$ 8,032,111	$ 15,060,208
Legacy: Away on Home		4/1-7/21	7	23%	4,840,015	20,742,921
ICC		3/2/2021	1	3%	69,168	2,075,040
ETL		4/1-15/21	15	50%	284,811	569,622
Total E-ZPass				34%	13,226,105	38,447,792
Video Revenue					2,654,526	
Total Revenue					15,880,631	
Official April Forecast					47,249,000	47,249,000
Revenue less Forecast					$ (31,368,369)	$ (8,801,208)
Forecasted Revenue Not Processed						
ITOLS						$ 1,922,390
Video						2,856,474
Total						4,778,864
Difference: Projected April vs. Adjusted Forecast						$ (4,022,345)

Reduced Actual Revenue in April Anticipated due to Pre-cutover & cutover shutdown period– 34% of Revenue Processed

Cumulative Revenue Shortfall

As of	Cumulative Amount	Change from Prior Month
7/31/20	$ (2.2)M	
8/31/20	$ (5.3)M	$ (3.2)M
9/30/20	$ (11.0)M	$ (5.6)M
10/31/20	$ (16.2)M	$ (5.2)M
11/30/20	$ (21.6)M	$ (5.4)M
12/31/20	$ (24.6)M	$ (3.1)M
1/31/21	$ (29.2)M	$ (4.5)M
2/28/21	$ (38.8)M	$ (9.6)M
3/31/21	$ (44.2)M	$ (5.4)M
4/30/21	$ (74.9)M	$ (31.4)

* Assumes all other inputs remain unchanged

Revenue Actual vs Official Forecast

via Facility

as of 4/30/21

Legacy Facilities

		July	August	September	October	November	December	January	February	March	April	Jul-Apr
E-ZPass	Forecast	$ 35,966,000	$ 35,780,000	$ 34,688,000	$ 36,227,000	$ 34,455,000	$ 34,811,000	$ 31,487,000	$ 30,132,000	$ 34,868,000	$ 36,971,000	$ 345,385,000
	Actual	34,350,414	35,479,107	32,009,445	33,641,850	30,504,258	31,057,624	29,261,986	25,548,315	34,195,440	12,872,126	$ 298,920,565
	Difference	(1,615,586)	(300,893)	(2,678,555)	(2,585,150)	(3,950,742)	(3,753,377)	(2,225,014)	(4,583,685)	(672,560)	(24,098,875)	(46,464,435)
Video	Forecast	-	-	526,000	522,000	541,000	1,943,000	3,886,000	4,805,000	5,059,000	5,243,000	$ 22,525,000
	Actual	625,724	464,052	947,873	1,413,213	2,179,246	5,400,256	4,197,538	2,867,021	3,993,129	2,566,137	$ 24,654,189
	Difference	625,724	464,052	421,873	891,213	1,638,246	3,457,256	311,538	(1,937,979)	(1,065,871)	(2,676,863)	2,129,189
E-ZPass & Video	Forecast	35,966,000	35,780,000	35,214,000	36,749,000	34,996,000	36,754,000	35,373,000	34,937,000	39,927,000	42,214,000	$ 367,910,000
	Actual	34,976,138	35,943,159	32,957,318	35,055,063	32,683,504	36,457,880	33,459,524	28,415,336	38,188,569	15,438,263	$ 323,574,754
	Difference	$ (989,862)	$ 163,159	$ (2,256,682)	$ (1,693,937)	$ (2,312,496)	$ (296,121)	$ (1,913,476)	$ (6,521,664)	$ (1,738,431)	$ (26,775,737)	$ (44,335,246)

Intercounty Connector

		July	August	September	October	November	December	January	February	March	April	Jul-Apr
E-ZPass	Forecast	$ 3,322,000	$ 3,364,000	$ 3,369,000	$ 3,573,000	$ 3,277,000	$ 3,097,000	$ 2,762,000	$ 2,734,000	$ 3,548,000	$ 3,842,000	$ 32,888,000
	Actual	2,535,871	101,322	-	-	-	-	-	-	-	69,168	$ 2,706,361
	Difference	(786,129)	(3,262,678)	(3,369,000)	(3,573,000)	(3,277,000)	(3,097,000)	(2,762,000)	(2,734,000)	(3,548,000)	(3,772,832)	(30,181,639)
Video	Forecast	-	-	45,000	49,000	57,000	184,000	216,000	321,000	255,000	268,000	$ 1,395,000
	Actual	182,695	154,690	156,687	202,498	404,921	556,299	339,698	133,649	137,296	88,389	$ 2,356,821
	Difference	182,695	154,690	111,687	153,498	347,921	372,299	123,698	(187,351)	(117,704)	(179,611)	961,821
E-ZPass & Video	Forecast	3,322,000	3,364,000	3,414,000	3,622,000	3,334,000	3,281,000	2,978,000	3,055,000	3,803,000	4,110,000	$ 34,283,000
	Actual	2,718,566	256,012	156,687	202,498	404,921	556,299	339,698	133,649	137,296	157,556	$ 5,063,183
	Difference	$ (603,434)	$ (3,107,988)	$ (3,257,313)	$ (3,419,502)	$ (2,929,079)	$ (2,724,701)	$ (2,638,302)	$ (2,921,351)	$ (3,665,704)	$ (3,952,444)	$ (29,219,817)

I-95 Express Toll Lanes

		July	August	September	October	November	December	January	February	March	April	Jul-Apr
E-ZPass	Forecast	$ 779,000	$ 830,000	$ 756,000	$ 839,000	$ 790,000	$ 745,000	$ 566,000	$ 649,000	$ 725,000	$ 925,000	$ 7,604,000
	Actual	695,730	728,740	667,066	729,700	651,816	675,612	596,454	503,132	744,964	284,811	$ 6,278,026
	Difference	$ (83,270)	$ (101,260)	$ (88,934)	$ (109,300)	$ (138,184)	$ (69,388)	$ 30,454	$ (145,868)	$ 19,964	$ (640,189)	$ (1,325,974)

All Facilities

	July	August	September	October	November	December	January	February	March	April	Jul-Apr
Forecast	$ 40,067,000	$ 39,974,000	$ 39,384,000	$ 41,210,000	$ 39,120,000	$ 40,780,000	$ 38,917,000	$ 38,641,000	$ 44,455,000	$ 47,249,000	$ 409,797,000
Actual	38,390,434	36,927,911	33,781,071	35,987,262	33,740,242	37,689,791	34,395,677	29,052,117	39,070,829	15,880,629	334,915,963
Difference	$ (1,676,566)	$ (3,046,089)	$ (5,602,929)	$ (5,222,738)	$ (5,379,758)	$ (3,090,209)	$ (4,521,323)	$ (9,588,883)	$ (5,384,171)	$ (31,368,371)	$ (74,881,038)

Driven by pre-cut over & cut-over periods– no transactions processed. Part of backlog plan.

Revenue Actual vs Official Forecast

via Payment Type

as of 4/30/21

E-ZPass

		July	August	September	October	November	December	January	February	March	April	Jul-Apr
Forecast	Legacy	$ 35,966,000	$ 35,780,000	$ 34,688,000	$ 36,227,000	$ 34,455,000	$ 34,811,000	$ 31,487,000	$ 30,132,000	$ 34,868,000	$ 36,971,000	$ 345,385,000
	ICC	3,322,000	3,364,000	3,369,000	3,573,000	3,277,000	3,097,000	2,762,000	2,734,000	3,548,000	3,842,000	$ 32,888,000
	ETL	779,000	830,000	756,000	839,000	790,000	745,000	566,000	649,000	725,000	925,000	$ 7,604,000
	Total	40,067,000	39,974,000	38,813,000	40,639,000	38,522,000	38,653,000	34,815,000	33,515,000	39,141,000	41,738,000	385,877,000
Actual	Legacy	34,350,414	35,479,107	32,009,445	33,641,850	30,504,258	31,057,624	29,261,986	25,548,315	34,195,440	12,872,126	$ 298,920,565
	ICC	2,535,871	101,322	-	-	-	-	-	-	-	69,168	$ 2,706,361
	ETL	695,730	728,740	667,066	729,700	651,816	675,612	596,454	503,132	744,964	284,811	$ 6,278,026
	Total	37,582,015	36,309,169	32,676,511	34,371,551	31,156,075	31,733,236	29,858,440	26,051,447	34,940,405	13,226,104	307,904,952
	Difference	$ (2,484,985)	$ (3,664,831)	$ (6,136,489)	$ (6,267,449)	$ (7,365,925)	$ (6,919,764)	$ (4,956,560)	$ (7,463,553)	$ (4,200,595)	$ (28,511,896)	$ (77,972,048)

Video

		July	August	September	October	November	December	January	February	March	April	Jul-Apr
Forecast	Legacy	$ -	$ -	$ 526,000	$ 522,000	$ 541,000	$ 1,943,000	$ 3,886,000	$ 4,805,000	$ 5,059,000	$ 5,243,000	$ 22,525,000
	ICC	-	-	45,000	49,000	57,000	184,000	216,000	321,000	255,000	268,000	$ 1,395,000
	Total	-	-	571,000	571,000	598,000	2,127,000	4,102,000	5,126,000	5,314,000	5,511,000	23,920,000
Actual	Legacy	625,724	464,052	947,873	1,413,213	2,179,246	5,400,256	4,197,538	2,867,021	3,993,129	2,566,137	$ 24,654,189
	ICC	182,695	154,690	156,687	202,498	404,921	556,299	339,698	133,649	137,296	88,389	$ 2,356,821
	Total	808,419	618,742	1,104,560	1,615,711	2,584,167	5,956,555	4,537,237	3,000,670	4,130,424	2,654,526	27,011,010
	Difference	$ 808,419	$ 618,742	$ 533,560	$ 1,044,711	$ 1,986,167	$ 3,829,555	$ 435,237	$ (2,125,330)	$ (1,183,576)	$ (2,856,474)	$ 3,091,010

E-ZPass & Video

	July	August	September	October	November	December	January	February	March	April	Jul-Apr
Forecast	$ 40,067,000	$ 39,974,000	$ 39,384,000	$ 41,210,000	$ 39,120,000	$ 40,780,000	$ 38,917,000	$ 38,641,000	$ 44,455,000	$ 47,249,000	$ 409,797,000
Actual	38,390,434	36,927,911	33,781,071	35,987,262	33,740,242	37,689,791	34,395,677	29,052,117	39,070,829	15,880,629	334,915,963
Difference	$ (1,676,566)	$ (3,046,089)	$ (5,602,929)	$ (5,222,738)	$ (5,379,758)	$ (3,090,209)	$ (4,521,323)	$ (9,588,883)	$ (5,384,171)	$ (31,368,371)	$ (74,881,038)

Backlog Processing Status

Transaction Backlog Plan Excerpt – 4/26/21

Week of	Backlog						Current			
	Facility	Transaction Type	Facility	Transaction Type	Start	End	Facility	Transaction Type	Start	End
4/26/2021	ICC	AVI	All	Image	3/2/2021	3/15/2021				
5/3/2021	ICC	AVI	All	Image	3/16/2021	3/29/2021				
5/10/2021	ICC	AVI	All	Image	3/30/2021	4/12/2021				
5/17/2021	All	AVI	All	Image	4/13/2021	4/26/2021				
5/24/2021	All	AVI	All	Image	4/27/2021	4/28/2021				
5/24/2021	All	All			4/29/2021	5/10/2021				
5/31/2021	All	All			5/11/2021	5/24/2021				
6/7/2021	All	All			5/25/2021	6/7/2021				
6/14/2021	All	All			6/8/2021	6/16/2021				
6/21/2021	ICC	AVI	FSK, TJH, ETL, Bay, ICC	Image	7/21/2020	7/27/2020	All	All	6/17/2021	6/23/2021
6/28/2021	ICC	AVI	FSK, TJH, ETL, Bay, ICC	Image	7/28/2020	8/3/2020	All	All	6/24/2021	6/30/2021

Current Status – 5/18/21

Facility	Transaction Type	Date Range		# of Completed	# of Planned	# of Days Behind
ICC	AVI	3/2/2021	4/7/2021	36	52	-16
ICC	Image	3/2/2021	3/26/2021	24	52	-28
All minus ICC	AVI	-	-	0	7	-7
All minus ICC	Image	3/2/2021	4/3/2021	32	52	-20

Backlog Processing Look Forward

Backlog Processing Delay Reasons

- Started with control runs only (i.e. not fully processing)
- Paused sending transactions for 9 days for review and corrections after initial control runs identified discrepancies with certain transactions (2:1 processing results in 2 days behind for each day delay)
- Business rules rejecting certain transactions for missing images
- Region of interest images missing, requiring manual creation

Backlog Processing Recovery Plan

- Modifying processing rate from 2:1 to 2.1/2.2:1 to catchup (adds approximately 1 to 2 additional days of transactions processed per week)
- Reviewing/revising business rules to reduce rejected transactions
- Revised quality control process to continue processing transactions, when issues are found, unless a major concern

Backlog Processing Delay Financial Implications

- April: Revenue $31.4M below official forecast due to pre-cutover & cutover shutdown period.
- May: Revenue conservatively estimated to be $39M below forecast due to catching up all transactions to prior Go-Live Posted Transactions.
- June:
  - Original backlog plan showed processing current transactions by the week of June 21, 2021
  - Achieving the backlog recovery plan would result in processing current transactions by June 26, 2021
  - The backlog recovery plan is anticipated to bring our FY21 revenues near the original backlog plan before the end of June (within the FY2021), resulting in the MDTA meeting or exceeding its debt service coverage policy

Backlog Processing Look Forward (Cont'd.)

Backlog Processing Risks

- Single workflow for all transactions (AVI transactions constrained with image transactions by trip building and sending)
- Optical Character Recognition (OCR) and manual image review processing is a bottleneck in processing
- Load on database and network resources
- Received some customer complaints about auto-replenishment speed
- End of June processing may not post on same day due to processing time

Backlog Processing Risk Mitigations

- Adding resources to expand manual image review and automated optical character recognition (OCR) processing
- Reviewing the trip building process to leverage opportunities to streamline
- Expanding the speed of sending capacity, focused on the busiest site (FMT)
- Continuing to outreach efforts to set expectations for customers
- Coordinating with vendors to ensure the end of June transactions post to accounts within the fiscal year

TAB 11

MEMORANDUM

TO: MDTA Board
PRESENTED BY: Mr. Jeff Folden, MDOT SHA, I-495 & I-270 P3 Program Deputy Director
SUBJECT: Managed Lanes Study New Recommended Preferred Alternative
DATE: May 20, 2021

PURPOSE OF MEMORANDUM

To provide the Maryland Transportation Authority (MDTA) Board an update on the new Recommended Preferred Alternative (RPA) for the Managed Lanes Study (MLS) under the P3 Program.

SUMMARY

On May 12, 2021, the Maryland Department of Transportation State Highway Administration (MDOT SHA) announced a new RPA for the MLS: Alternative 9: Phase 1 South. The new RPA focuses solely on building a new American Legion Bridge, a regional traffic chokepoint in need of a bridge deck replacement, and delivering two high occupancy toll (HOT) managed lanes on Phase 1 South: American Legion Bridge I-270 to I-370 with no action at this time on I-495 east of the I-270 eastern spur (Figure 1). The new RPA now aligns the MLS to be consistent with the phased delivery and permitting approach and is responsive to and addresses comments heard from the public and some partner agencies over the last several months. The RPA will be advanced by the Phase Developer as part of the predevelopment work to further avoid and minimize impacts to environmental resources, communities, properties, utilities, and other features by working with the agency partners, property owners, utility owners, and citizens.

In late summer 2021, Federal Highway Administration (FHWA) and MDOT SHA will issue a Supplemental Draft Environmental Impact Statement (SDEIS) for Alternative 9: Phase 1 South for public and agency comment. As the RPA will be in the SDEIS, FHWA and MDOT SHA plan to issue a combined Final Environmental Impact Statement and Record of Decision (FEIS/ROD) in Spring 2022. If a build alternative is selected in the FEIS/ROD, MDOT would seek approval for the Phase 1 South Section P3 Agreement from the MDTA Board and ultimately the Maryland Board of Public Works.

Consistent with Alternative 9 in the Draft Environmental Impact Statement (DEIS) published in July 2020, the RPA, Alternative 9: Phase 1 South, proposes adding two HOT managed lanes in each direction from the George Washington Memorial Parkway in Virginia to east of MD 187 on I-495 (Figure 2). On I-270 from I-495 to north of I-370 and on the I-270 eastern spur from east of MD 187 to I-270 (Figure 3), the new alternative proposes adding one HOT managed lane and converting the existing high-occupancy vehicle (HOV) lane into a HOT managed lane, resulting in a network of two HOT managed lanes in each direction. Along with replacing the American Legion Bridge, the new RPA will address existing traffic and long-term traffic growth, enhance trip reliability, provide additional travel options and improve the movement of goods and services within Phase 1 South. This new RPA will provide significant pedestrian and bicycle commitments to improve the connectivity of area sidewalks and trails, including the addition of a multi-use trail on the new American Legion Bridge across the Potomac River.

In the Alternative 9: Phase 1 South RPA, existing general-purpose travel lanes throughout the corridor will be retained and will remain free for use by all motorists. Drivers with less than three occupants in the vehicles would only pay if they choose to use the HOT lanes. HOV3+ will allow carpools, vanpools, and other vehicles carrying three or more people to travel faster and more reliably in the new HOT lanes free of charge any time of day. Free passage will be granted in the HOT lanes for High Occupancy Vehicles (HOV) 3+ (vehicles with three or more passengers) and for other designated vehicles.

This RPA does not suggest that improvements will not be needed on the top side and east side of I-495. If the new RPA is selected at the conclusion of the MLS, consideration of improvements to remaining parts of the interstate system would advance separately, subject to additional environmental studies, analysis, and collaboration with the public, stakeholders, and agency partners.

The MLS is an environmental study being conducted by MDOT SHA and FHWA in accordance with the National Environmental Policy Act (NEPA). The solicitation for the American Legion Bridge I-270 to I-70 Relief Plan is being concurrently conducted. The solicitation covers Phase 1 South and Phase 1 North, which is on I-270 from I-370 to I-70. Phase 1 North is currently at the Pre-NEPA stage and will be subject to an independent environmental study including collaboration with the public, stakeholders, and agency partners.

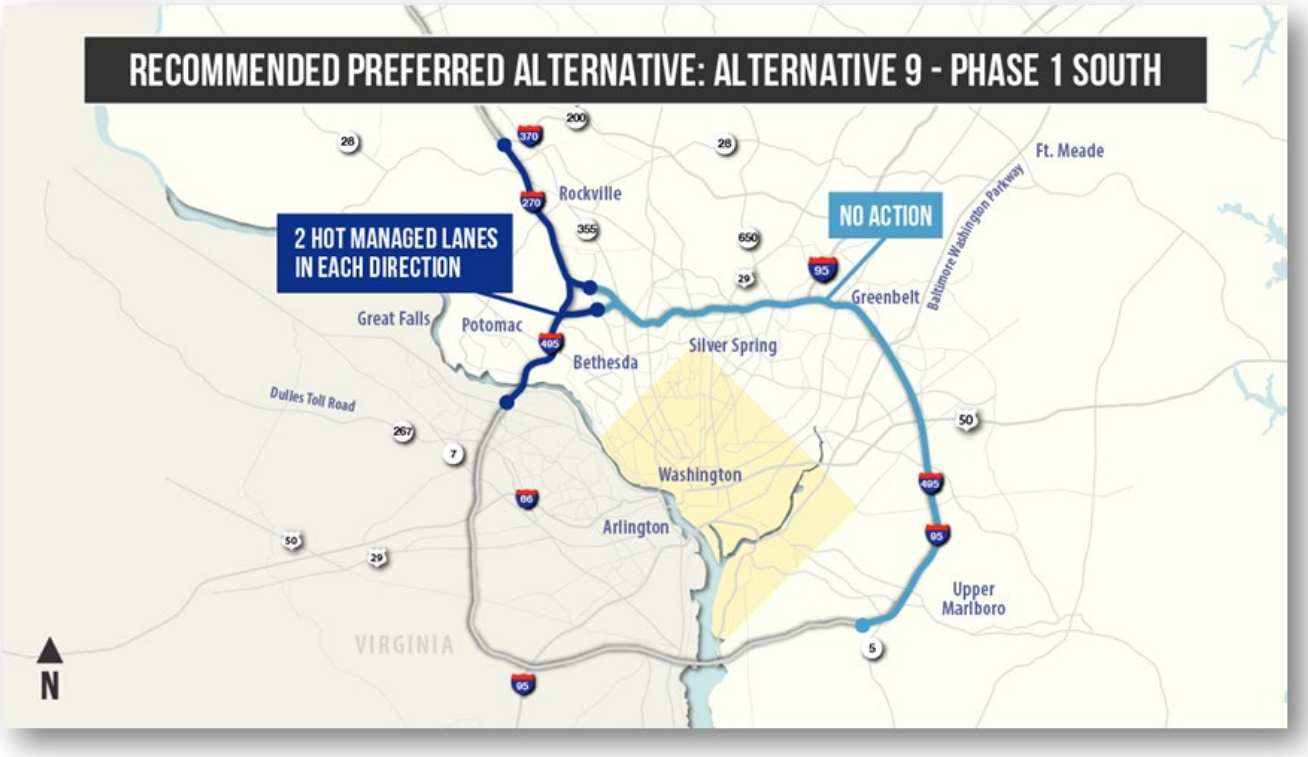
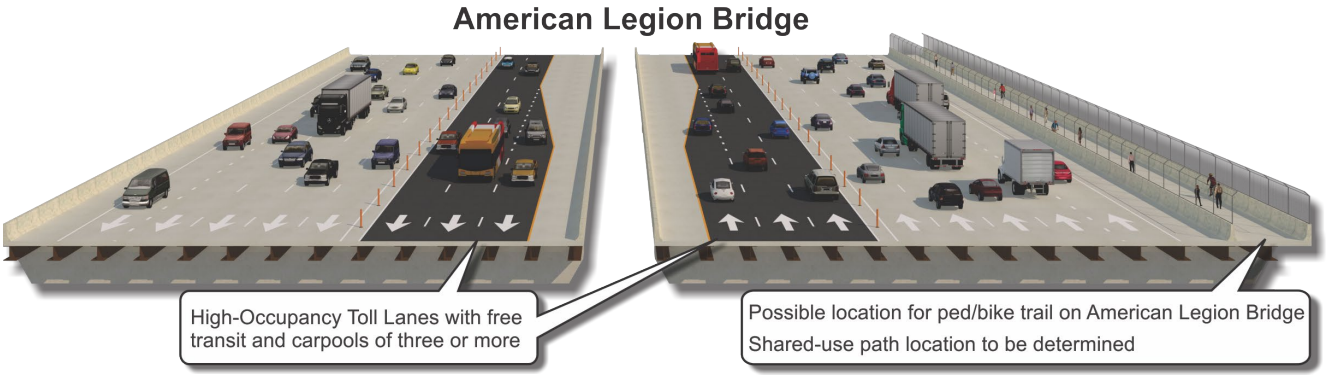


Figure 1



View of ALB from Virginia looking north towards Maryland

Figure 2

Figure 3

TAB 12

MARYLAND TRANSPORTATION AUTHORITY

PROPOSED TOLL RATE RANGE SETTING PROCESS

PHASE 1 SOUTH: AMERICAN LEGION BRIDGE I-270 TO I-370

Maryland Transportation Authority

May 20, 2021

AGENDA

TABLES and GRAPHS

I. INTRODUCTION

After two years of due diligence work, the Maryland Transportation Authority (MDTA) staff is pleased to present to the MDTA Board, a proposal for toll rate ranges for Phase 1 South: American Legion Bridge I-270 to I-370, the first dynamically tolled transportation facility in Maryland. This proposal includes minimum toll and maximum toll rate ranges, soft rate caps, a process for annual toll escalation, and toll discounts for certain types of vehicles. Maryland law requires the establishment of toll rate ranges for variably priced facilities, including those utilizing dynamic pricing. The MDTA is the only State entity with the authority to set, revise, and fix tolls for State transportation facilities and will be responsible for setting toll rate ranges and conducting toll collection operations for the Phase 1 South: American Legion Bridge I-270 to I-370 project. The proposal is limited in focus to solely Phase 1 South: American Legion Bridge I-270 to I-370. Any action to set, revise and fix tolls outside of Phase 1 South: American Legion Bridge I-270 to I-370 would require a separate toll setting process in accordance with State law.

After several months of continuous collaboration and listening to agency partners, public officials and stakeholders, the Federal Highway Administration (FHWA) and the Maryland Department of Transportation State Highway Administration (MDOT SHA) have identified Alternative 9: Phase 1 South as the new Recommended Preferred Alternative (RPA) for the Managed Lanes Study (MLS). The new RPA focuses solely on building a new American Legion Bridge and delivering two high occupancy toll (HOT) managed lanes in each direction on Phase 1 South: American Legion Bridge I-270 to I-370 with no action at this time on I-495 east of the I-270 eastern spur.

In late summer 2021, FHWA and MDOT SHA will issue a Supplemental Draft Environmental Impact Statement (SDEIS) for Alternative 9: Phase 1 South: American Legion Bridge I-270 to I-370 for public and agency comment. Consistent with Alternative 9 in the Draft Environmental Impact Statement (DEIS) published in July 2020, the RPA, Alternative 9: Phase 1 South: American Legion Bridge I-270 to I-370, proposes adding two HOT managed lanes in each direction from the George Washington Memorial Parkway in Virginia, across a new American Legion Bridge, to east of MD 187 on I-495. On I-270 from I-495 to north of I-370 and on the I-270 eastern spur from east of MD 187 to I-270, the new alternative proposes adding one HOT managed lane and converting the existing high-occupancy vehicle (HOV) lane into a HOT managed lane, resulting in a network of two HOT managed lanes in each direction.

MDOT SHA and FHWA continue to consider all comments that were received as part of the DEIS and public hearings held last fall and continue to work with agencies and stakeholders to avoid and minimize impacts to the environment and the communities in the study area. The agencies will respond to substantive comments received on both the DEIS and the SDEIS in the study's combined Final Environmental Impact Statement/Record of Decision (FEIS/ROD).

In the Alternative 9: Phase 1 South RPA, existing general-purpose travel lanes throughout the corridor will be retained and will remain free for use by all motorists. Drivers with less than three occupants in the vehicle would only pay if they choose to use the HOT lanes. HOV3+ will allow carpools, vanpools and other vehicles carrying three or more people to travel faster and more reliably in the new HOT lanes free of charge any time of day. Buses and motorcycles also will be granted free passage on the new HOT lanes free of charge, providing opportunities for a faster, more reliable trip.

The new RPA will address existing traffic and long-term traffic growth, enhance trip reliability, provide additional travel options and improve the movement of goods and services within Phase 1 South: American Legion Bridge I-270 to I-370. This new RPA will provide significant pedestrian and bicycle commitments to improve the connectivity of area sidewalks and trails, including the addition of a multi-use trail on the new American Legion Bridge across the Potomac River. Delivering the new American Legion Bridge will serve as the primary link between key economic centers in Maryland and Virginia.

The toll-setting process is just for Phase 1 South: American Legion Bridge I-270 to I-370. Phase 1 South: American Legion Bridge I-270 to I-370 is part of Phase 1: American Legion Bridge I-270 to I-70 Relief Plan that will be designed and developed using a multi-step Progressive public-private-partnership (P3) model. MDOT SHA and the MDTA will soon begin working with the Phase 1 Developer and all stakeholders on the best ways to advance the preliminary design to further avoid and minimize impacts to environmental resources, communities, properties, utilities, and other features by working with the counties, municipalities, state and federal agencies, property owners, utilities, and citizens.

After this significant collaborative effort, and only if the FHWA and MDOT SHA Phase 1 South Recommended Preferred Alternative is selected under the National Environmental Policy Act (NEPA) environmental review, MDOT would seek final approval from the Board of Public Works (BPW) to move forward with a Section P3 Agreement for the first section of Phase 1, Phase 1 South, which would be focused on the American Legion Bridge and I-270, and connecting with our partners in Virginia to advance final design, construction, financing, operations, and maintenance for 50 years.

The next step is seeking approval from the MDTA Board to proceed with public hearings to begin the toll rate range setting process.

A. Key Elements of Travel with HOT Lanes

HOT lanes are similar to Express Toll Lanes (ETL), except they provide an opportunity for free passage for certain vehicle types when vehicle occupancy meets or exceeds a predetermined number of passengers or other designated vehicles. Whereas, ETL does not provide a free option.

- HOT lanes operate at 45 mph or higher while average speeds in the general-purpose lanes also improve as drivers choosing HOT lanes reduces the number of vehicles in the general-purpose lanes.
- Improvements in speed and travel time encourage use of the interstate and reduce cut-through traffic on local roadways.
- The free passage discount will be granted along the Phase 1 South: American Legion Bridge I-270 to I-370 HOT lanes for HOV 3+, buses and motorcycles.
- By granting free passage to HOV 3+, buses and motorcycles, these new lanes will: give people a more reliable trip, provide more equitable opportunities with the option to travel free, reduce dependence on single-occupancy vehicles (SOV), and create new opportunities for ride sharing supporting regional planning efforts to expand HOT/HOV usage.
- Operationally compatible with Express/HOT lanes in VA.
- Allows for increased speeds for buses in HOT lanes by providing free-flow traffic and assuring a reliable trip.

- Supplies HOT lane connections to existing transit service on local roads that serve offices, shops, and entertainment centers.
- Provides connections that support existing and future transit service to underserved communities and businesses.

B. Cost of Doing Nothing

The cost of doing nothing is overwhelming. If MDOT and the MDTA do not proceed with the Phase 1 South: American Legion Bridge I-270 to I-370, Maryland has no funding options for replacing and improving the American Legion Bridge and I-270 to I-370. It would cost the State billions of dollars just to maintain the American Legion Bridge, I-270 to I-370, and the many associated elevated structures in a state of good repair. Without a P3, those funds could no longer be used for other projects around the State. Phase 1 South: American Legion Bridge I-270 to I-370 alone will invest billions of dollars of private funding in critical infrastructure and help with Maryland's economic recovery by creating thousands of local, good paying jobs and supporting freight movement throughout the National Capital Region, the Helen Delich Bentley Port of Baltimore and the Baltimore/Washington International Thurgood Marshall Airport.

C. Statute & COMAR

The MDTA has the responsibility under Maryland law to fix, revise, and set toll rates in accordance with Transportation Article §4-312 of the Annotated Code of Maryland and Code of Maryland Regulations (COMAR) Title 11 Department of Transportation, Subtitle 07 MDTA, Chapter 05 Public Notice of Toll Schedule Revisions (11.07.05). As a partner in Phase 1: the American Legion Bridge I-270 to- I-70 Relief Plan, the MDTA is presenting the proposed toll rate ranges to the MDTA Board today. If the MDTA Board votes to take the proposal to public hearings, a public comment period and hearings will follow. The toll rate range setting process will conclude with a presentation of the final recommended toll rate ranges to the MDTA Board for approval. The staff's toll proposal and toll rate range setting process will address the toll rate ranges for Phase 1 South: American Legion Bridge I-270 to I-370. The establishment of toll rate ranges for areas outside of Phase 1 South: American Legion Bridge I-270 to I-370 will require separate toll rate range setting process(es), including public hearings, in accordance with State law.

D. Presentation Purpose

The purpose of this presentation is for MDTA staff to formally present the proposed toll rate ranges and soft rate cap within the ranges to the MDTA Board and MDTA Executive Director and to seek approval to advertise the staff's proposal to begin the toll setting process.

Due to the complexity of the toll rate range setting information, the MDTA staff provided an update to the MDTA Board at the February 25, 2021 Board meeting about preliminary toll rate range setting information for Phase 1 South: American Legion Bridge I-270 to I-370 to prepare in advance of today's request to initiate the public comment and hearing process. The February 25th meeting was not part of the official Phase 1 South: American Legion Bridge I-270 to I-370 toll rate range setting process and was intended as a primer on the complex information being presented today. Certain information has been updated since the first presentation in February.

If approved by the MDTA Board, today's meeting kicks off the official toll rate range setting process and includes a presentation of the proposed toll rate ranges for Phase 1 South: American Legion Bridge I-270 to I-370 and will conclude with a request for approval to take the proposed toll rate range information to public hearings. If the MDTA Board votes to take the proposed toll rate ranges to public hearings, then the official statutory public comment period will begin today, May 20, 2021.

Today's meeting and the toll rate range setting public hearings are not part of the federal NEPA process. The MDTA is committed to transparency and meeting its statutory obligations, while upholding the integrity of the separate and distinct NEPA and solicitation process.

Key Takeaways:

- MDTA is presenting a staff proposal for the MDTA Board to initiate the toll rate range setting process, including minimum toll and maximum toll rate ranges, soft rate caps, a process for annual toll escalation, and toll discounts for certain types of vehicles.
- The MDTA Board is not voting on a proposal, rather just voting to begin the toll rate range setting process.

II. DYNAMIC TOLLING & TOLL RATE RANGE SETTING PROCESS

There are two types of toll facilities:

- Fixed price toll facility: vehicles are subject to a set toll rate regardless of the time of day or congestion level. This applies to most MDTA facilities.

- Variably priced toll facility: vehicles are subject to a set toll on some or all lanes that can vary based on (1) time of day pricing or (2) dynamic pricing. MD 200 (the Intercounty Connector) and I-95 ETL are examples of time of day variably priced facilities. Maryland currently has no dynamically priced facilities.

A. Dynamic Pricing

Dynamic pricing is a method of calculating the toll where the pricing mileage rate varies within the approved toll rate range in real time. A dynamic facility uses operational metrics to adjust the toll in real time. Toll rates adjust to maintain free-flowing traffic by using pricing factors to influence the traffic flow—when lanes become more congested, the toll increases, and when the lanes become less congested, the toll decreases. Tolls will be collected electronically at highway speeds, using overhead gantries, with no toll plazas or toll booths (cashless tolling). Similar to the ICC and I-95 ETL, current toll rates for common destinations will be displayed on electronic roadway signs allowing drivers to know their toll prior to entering the HOT lanes.

Variably priced toll facilities require the establishment of toll rate ranges (minimum and maximum) for each vehicle classification and payment method. The MDTA Board is also responsible for establishing an annual escalation process and discount programs (including free passage) such as HOV 3+ or any other designated vehicles. Under dynamic pricing, per State law, the soft rate cap is not established by the MDTA Board, but rather is set by the MDTA Executive Director.

B. Setting Toll Rate Ranges on a Dynamically Priced Facility

MDTA's primary focus when establishing or adjusting toll rates for its existing toll facilities is the adequacy of revenue to ensure it can meet its fiscal responsibilities to operate, maintain, and finance its facilities. Traffic and revenue models help staff determine the revenue impact for various toll rate scenarios. The Phase 1 South: American Legion Bridge I-270 to I-370 requires a shift in mindset when establishing toll rate ranges. Rather than solely focusing on revenue, the Phase 1 South: American Legion Bridge I-270 to I-370 is designed to maintain speeds of 45 mph or greater in the HOT lanes. The goal of the HOT lanes is to maintain free-flowing traffic and to use pricing factors to influence traffic flow. As such, the toll rate ranges need to apply economic supply and demand principles to influence the utilization of the HOT lanes. The Phase 1 Section Developer will be responsible for setting toll rates within the established toll rate ranges, if approved at the end of the toll rate range setting process.

C. Toll Rate Range Setting Process

The toll rate range setting process is centered around a proposal by the MDTA staff to establish minimum toll rates, maximum toll rates, soft rate caps within the minimum and maximum toll rate ranges, a process for annual toll escalation, and toll discounts for certain types of vehicles. Today, if the MDTA Board decides to take the toll rate range information to public hearings, the MDTA will ensure the public is engaged in the toll rate range setting process and comply with State law by providing opportunities for public review and comment on the proposal at one or more meetings held at a time and place of convenience to the public in the county where the toll rate ranges are proposed to be implemented. The MDTA is planning virtual and in-person public hearings to seek public testimony. The public will be able to listen live to the hearings via telephone or livestream. Testimony will be accepted in-person, electronically, voicemail, and by mail. All testimony, whether at the hearing or through other methods will be given equal consideration and become part of the official record. Additionally, all public hearing materials will be available in a Virtual Information Room. These materials can be found in the Attachment Section. After the hearings, additional MDTA Board meetings will be held, and additional public comment periods will occur. The toll rate range setting process will conclude with a final vote by the MDTA Board on the final toll rate range recommendation. The full toll rate range setting process is explained in more detail below. The most recent example of this toll-setting process occurred via the Toll Modernization when new or revised toll rates were established for motorcycles, 3- and 4-axle light vehicles and the new Pay-by-Plate payment method; and a discount for the early payment of Notice of Toll Due.

1. Hearing Announcement

The MDTA staff will present the proposed toll rate ranges at today's MDTA Board Meeting to obtain approval from the MDTA Board to initiate the toll rate range setting process and proceed with holding public hearings. The material presented will include the background and justification for the toll rate ranges (minimum and maximum per-mile rates), soft rate caps within the ranges, and discounts, as well as the process required for completing the hearings. At the time of the staff proposal, the MDTA Board is not voting on the information being presented; rather, the MDTA Board is agreeing to initiate the toll rate range setting process and proceeding with public hearings. Once the staff proposal has been presented publicly to the MDTA Board, it will be posted on the MDTA's website.

2. Hearing Process

The process for conducting the public hearings and recording comments from the public is specified in Transportation Article, §4-312, Annotated Code of Maryland. Here are the steps of the process:

- Today, the MDTA staff is presenting the toll rate range proposal to the MDTA Board via a livestreamed meeting open to the public. At this meeting, the MDTA Board will be asked to vote on taking the toll rate range proposal to public hearings.
- Should the vote be in favor of taking the toll rate range proposal to public hearings, all public hearing materials, including information and studies used in the analysis to justify the toll rate range proposal, will be posted for public review and comment on the MDTA's webpage at mdta.maryland.gov/ALB270TollSetting on May 20, 2021. Posting on May 20th will exceed the required minimum 10 business days before the start of the first public hearing when information must be made available to the public on the MDTA webpage.
  **Public hearing dates will be announced at a later date.*
- The MDTA would provide an opportunity for public review and comment on the proposed toll

rate ranges during public hearings.

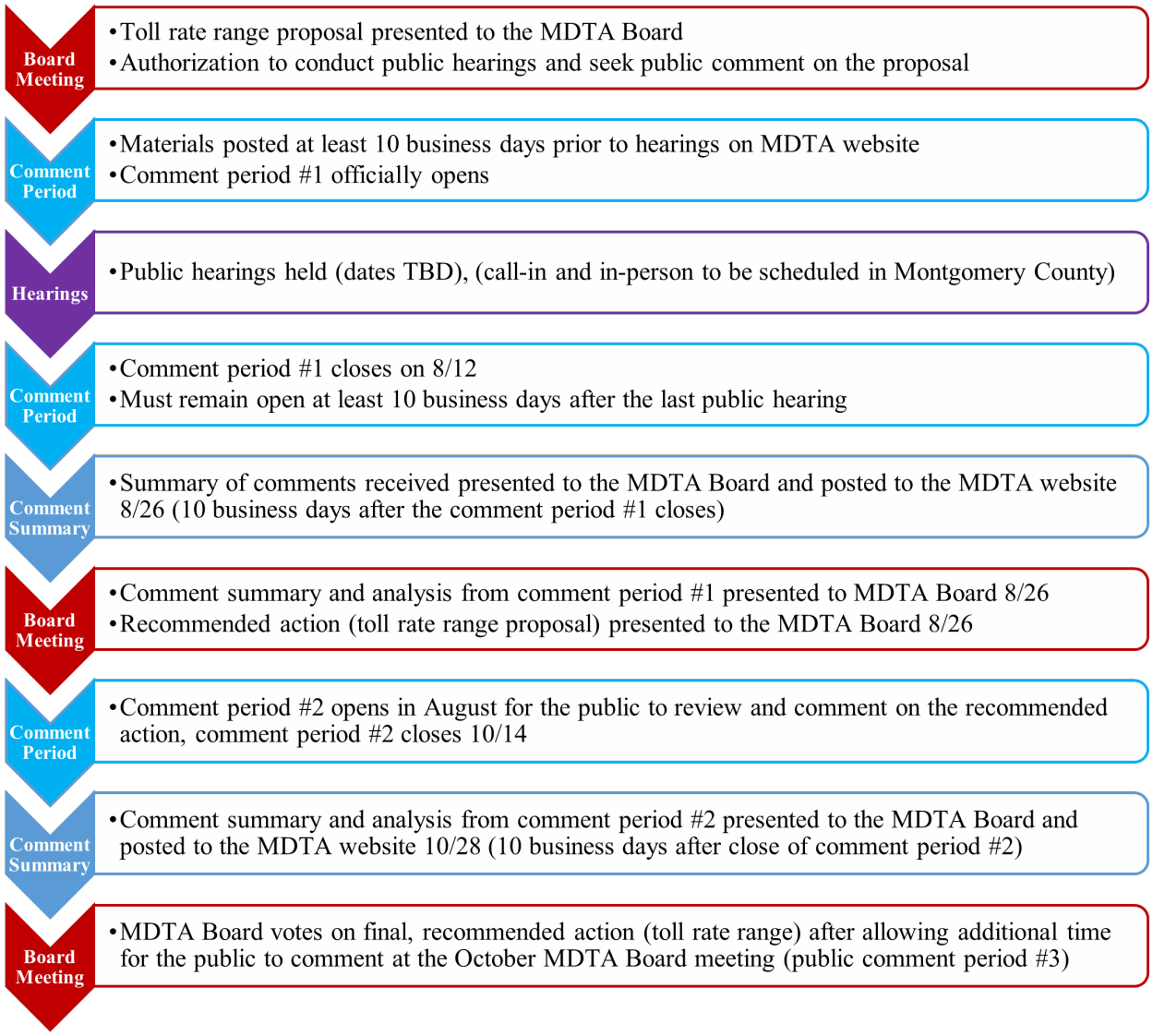
- A quorum of the MDTA Board Members (i.e., a minimum of five MDTA Board Members) and the MDTA Board Chairman or his designee must be present at both the in-person and call-in testimony public hearings.
- After completing the last public hearing, the MDTA would continue to accept voicemail testimony and written comments from the public until **5:00 PM on August 12, 2021.** The public comment period must remain open for ten (10) business days after the last scheduled public hearing.

3. Post Hearing Process

The process for approval and finalizing the proposed toll rate ranges is also specified in Transportation Article, §4-312, Annotated Code of Maryland. Here are the planned steps of the post-hearing process:

- At the August 26, 2021 MDTA Board Meeting, the MDTA staff will present a summary and analysis of comments received at an open meeting conducted via livestream. The comment summary and analysis will be posted to the MDTA webpage at **mdta.maryland.gov/ALB270TollSetting**. During this Board Meeting, the MDTA staff will present the recommended action (recommended toll rate ranges) for Phase 1 South: American Legion Bridge I-270 to I-370. The public is welcome to watch the MDTA Board Meeting via livestream on the MDTA's webpage at mdta.maryland.gov/Meeting_Schedules/MDTA_Board_Meeting_Schedule.html.
- The MDTA must accept written comments on the recommended toll rate ranges for at least 10 business days after the August 26th Board Meeting. This second public comment period will exceed this requirement with a comment close date of **October 14, 2021 at 5 PM.**
- At the October 28, 2021 MDTA Board Meeting, the MDTA staff will present a summary and analysis of any public comments received during the second public comment period at an open meeting conducted via livestream or in-person. The comment summary and analysis will be posted to the MDTA webpage at **mdta.maryland.gov/ALB270TollSetting**. During this meeting, the MDTA Board will vote on the final toll rate range recommendation. Before the Board votes, the public will be provided a third opportunity to comment on the final toll rate range recommendation live during the MDTA Board Meeting. Pre-registration is required to comment during the MDTA Board Meeting. Registration details are available at mdta.maryland.gov/Meeting_Schedules/MDTA_Board_Meeting_Schedule.html.

D. Toll Rate Range Setting Flowchart



Key Takeaways:

- Dynamically priced toll facilities require the establishment of toll rate ranges (minimum and maximum) for each vehicle classification and payment method. The MDTA Board is also responsible for establishing an annual escalation process and discount programs (including free passage) such as HOV 3+, buses and motorcycles.
- The toll rate range setting process is a multi-step process codified in Maryland law that engages with the public through public hearings and official public testimony. Feedback received is presented to the MDTA Board prior to a final vote.

III. DUE DILIGENCE

Prior to presenting any toll proposal to the MDTA Board for consideration, MDTA analyzes tolling options in detail. Normally, this analysis leverages the deep understanding of the MDTA facilities, including factors related to traffic and revenue patterns, details about the customer base, and toll operations. Different toll rate levels are tested during the toll proposal development to determine the revenue impacts to identify the best outcome when considering these factors. Due to the congestion relief goal for Phase 1 South: American Legion Bridge I-270 to I370, certain factors needed to be considered differently in this toll proposal. One especially important factor in the due diligence process has been the assumption of dynamic tolling. Thus far, traffic demand on MDTA's variably priced facilities, MD 200/ICC and the I-95 Express Toll Lanes (ETLs), has not warranted changes to the fixed time-of-day toll rates. In contrast, demand for the Phase 1 South: American Legion Bridge I-270 to I-370 HOT lanes are expected to be such that dynamic pricing will be required to adequately manage congestion and ensure reliable trips for drivers.

The due diligence conducted by MDTA used a combination of a traffic and revenue model developed specifically for the facility, model analysis using data from other U.S. priced-managed lanes currently in operation, and input from priced-managed lane experts. In order to get a full perspective on the project, it was also prudent to receive input related to the preliminary toll rate ranges directly from the potential developers involved.

The traffic and revenue model was based on the Metropolitan Washington Council of Governments (MWCOG) regional travel demand model and then updated and enhanced for the facility. These updates incorporated detailed corridor counts, speeds, and origin-destination data as part of a model calibration effort. Considering future years, independent socioeconomic forecasts for the region with a focus on the facility influence area as well as future transportation projects were incorporated. The Virginia I-495 Express Lanes were included in the model enhancement effort allowing testing and refining of the model toll algorithm to actual priced managed lane utilization and revenue performance. The tolling algorithm in the updated and enhanced model was developed using the results of a stated preference survey conducted specifically for this project. The resulting average weekday model included a base year of 2017; future years 2025, 2035, 2045, and 2060; and 13 time periods. Considering the toll rate analysis process, the model provided estimated average (typical) toll rates for the years and time periods included.

After the model was completed, additional analysis was performed using data from other priced managed lanes currently in operation as part of the process for due diligence. There are relatively few of these projects with long operating histories. Most of the post-model data analyzed was from the Virginia I-495 Express Lanes project, which has several years of operating history and has the benefit of close geographic proximity to Phase 1 South: American Legion Bridge I-270 to I-370. Because the project model produced estimates of only average toll rates, the post-model data analysis focused on estimating the anticipated day-to-day variability in toll rates above and below the average. Additionally, because the model produced average toll rates for specific time periods and because toll rates may vary within time periods, the post-model data analysis also considered toll rate variability that would occur within the time periods.

Input from managed lane experts on the MDTA team informed both the model development and the post-model analysis. When possible, the team also consulted with agencies already in P3 agreements for priced managed lane projects about aspects of toll setting including the Virginia Department of Transportation,

the Texas Department of Transportation, the Colorado Department of Transportation, and the North Carolina Turnpike Authority.

The due diligence efforts specifically focused on the preliminary maximum toll rate and escalation factors. The proposed maximum toll rates were estimated by reviewing the average toll rates from the project model while considering potential variability in toll rates in non-average conditions using month-to-month, within the hour, and day-to-day factors from post model analysis. Escalation factors were estimated by reviewing estimated growth in toll rates over time from the model results in combination with historical socioeconomic growth trends for the project region. MDTA's toll collection costs were especially important for the analysis of the minimum toll. This analysis also focused on estimating the potential revenue impact of different soft cap levels and the estimated frequency in which different soft cap levels could be reached by gantry, direction of travel, and time period.

Lastly, in order to get a full perspective on the project, it was prudent to receive input from the potential developers on developing the preliminary toll rate ranges. Feedback from the potential developers was reviewed and considered in the framework of the same overall due diligence process, as discussed at the February 25th Board meeting.

Key Takeaways:

- MDTA has spent two years conducting due diligence activities on the proposal being presented.
- Activities that led up to this proposal include:
  - Traffic and revenue studies
  - Post-model processing
  - Feedback from potential developers

IV. PROPOSED TOLL RATE RANGE AND SOFT RATE CAP

The proposed toll rate ranges for Phase 1 South: American Legion Bridge I-270 to I-370 will consist of minimum toll rates, soft toll rate caps, and maximum toll rates for the HOT lanes. The toll rate ranges will be set to ensure the HOT lanes operate to established operational metrics and provide managed lane users with a faster and more reliable trip. The rates will also include annual escalation factors to ensure the toll rate ranges are adequate to cover the full term of the P3 Program agreements (anticipated to be 50 years). The parameters for these toll rate ranges are described in this section. Toll rates will be set dynamically, meaning they could change up to every five minutes based on traffic volumes or speed in the HOT lanes to provide customers who choose to pay a toll a faster and more reliable trip. The actual toll rates will change based on real-time traffic within each tolling segment.

The toll rate ranges will only apply to the HOT lanes; the existing free general-purpose lanes will not be tolled. In addition, the proposal will include discounts for qualifying vehicles—including HOV 3+ (including car-vanpools), buses and motorcycles. It is important to note that these toll rate ranges would apply only if the MDOT Recommended Preferred Alternative is approved in the FEIS and ROD and if BPW approves a Phase 1 Developer.

A. Toll Rate Ranges (Minimum and Maximum Toll Rates) and Soft Rate Caps within the Ranges

1. Minimum Toll Rate

The minimum toll rate is the lowest toll rate per mile that will be charged at any tolling segment for the HOT lanes or the lowest total toll a customer will pay regardless of how far they travel. The minimum toll rate is intended to cover toll capture, processing and collection costs.

2. Soft Rate Caps

The soft rate cap is the toll rate amount that can only be exceeded when at least one of the following thresholds are met within a given tolling segment during the preceding five-minute period: the average traffic volume exceeds 1,600 passenger car equivalent vehicles per hour per lane (PCEphpl) or the average speed in a tolling segment is below 50 mph. The soft rate cap will always be lower than the maximum toll rate and can be exceeded only temporarily to provide customers who choose to pay a toll, a faster and more reliable trip. The toll rate will continue to decrease once throughput and speed performance targets are achieved until it is at or below the soft rate cap.

MDTA is proposing the soft rate cap as a protection for our customers. The purpose of the soft rate cap is to constrain the toll rate charged to customers when throughput and speed performance targets are achieved. This provides customers protection from price gouging when traffic conditions do not justify higher rates. Although not standard practice in the tolling industry, the MDTA is choosing to be one of only two states in the United States to set a soft rate cap to constrain the toll rate as a protective measure for customers.

3. Maximum Toll Rate

The maximum toll rate is the highest per-mile toll rate that may be charged within any tolling segment for the HOT lanes. The actual per-mile rate paid by customers is responsive to real-time traffic. The maximum

rates cannot be exceeded under any circumstance. The maximum rate will only be realized under conditions where the soft rate cap is exceeded, which would be during times of deteriorating performance. In extremely rare circumstances, when traffic demand is very high and customers are experiencing decreased speeds in a given tolling segment, the toll rate may reach the maximum toll rate. The toll rate is determined on a segment-by-segment basis. The maximum toll rate is required for the most congested tolling segments and likely would not come into effect for many segments.

4. Escalation

The MDTA staff proposes the minimum and maximum toll rate ranges, and the soft rate cap within, will be adjusted annually according to pre-determined escalation factor equations. The adjustments are necessary to ensure the toll rates will (1) keep up with the growing traffic demand for the HOT lanes, (2) endure annual inflation, and (3) achieve the goal of providing a faster and more reliable trip for customers who choose to pay the toll over the life of Phase 1 South: American Legion Bridge I-270 to I-370. Inflation causes the value of money to decrease over time (applies to the minimum and maximum toll rate ranges, soft rate cap within, minimum toll rates, and the unregistered video surcharge). Growth in demand considers changes in population, employment, and income above inflation.

5. Proposed Toll Rate Ranges

The proposed toll rate ranges, which are provided in the table below in cost per mile ($/mile), include the minimum and maximum toll rate ranges and soft rate caps within, for all vehicle classifications and payment types. The vehicle classifications, payment methods and associated multipliers are consistent with existing MDTA facilities. Vehicle classifications can be found in the Attachment Section. For example, the 3-axle light multiplier is 1.5x the 2-axle rate for the same payment type and the multiplier between Video Tolling (unregistered video) and electronic toll collection (ETC) for the same vehicle classification is 1.5x. The Executive Director may set or adjust the soft rate cap, operational metrics, or toll zones consistent with the toll ranges established by the MDTA Board.

Table IV-1: Proposed Toll Rate Ranges, Soft Rate Caps, Discounts & Free Passage

VEHICLE TYPE	GENERAL PURPOSE LANES	HOT LANES					
		Payment Type	Proposed Toll Rage Ranges (2021$/mile)[3]			HOV3+ Vanpools Carpools	Buses Motorcycles
			Minimum Toll Rate Range[2]	Soft Cap Rate	Maximum Toll Rate Range		
Passenger Vehicle (2-axle)	Free	Electronic Toll Collection (ETC) (*E-ZPass*)	$ 0.20	$ 1.50	$ 3.76	Free	Free
Motorcycle			$ 0.00	$ 0.00	$ 0.00		
3-axle Light			$ 0.30	$ 2.25	$ 5.64		
3-axle Heavy			$ 0.40	$ 3.00	$ 7.53		
4-axle Light			$ 0.51	$ 3.75	$ 9.41		
4-axle Heavy			$ 0.61	$ 4.50	$ 11.29		
5-axle			$ 1.21	$ 9.00	$ 22.58		
6+-axle			$ 1.52	$ 11.25	$ 28.22		
Passenger Vehicle (2-axle)	Free	Pay-By-Plate (Registered Video) (1.25x ETC)	$ 0.25	$ 1.88	$ 4.70	Free	Free
Motorcycle			$ 0.00	$ 0.00	$ 0.00		
3-axle Light			$ 0.38	$ 2.81	$ 7.05		
3-axle Heavy			$ 0.50	$ 3.75	$ 9.41		
4-axle Light			$ 0.64	$ 4.69	$ 11.76		
4-axle Heavy			$ 0.76	$ 5.63	$ 14.11		
5-axle			$ 1.51	$ 11.25	$ 28.23		
6+-axle			$ 1.90	$ 14.06	$ 35.28		
Passenger Vehicle (2-axle)	Free	Video Tolling[1, 4] (Unregistered Video) (1.5x ETC)	$ 0.30	$ 2.25	$ 5.64	Free	Free
Motorcycle			$ 0.00	$ 0.00	$ 0.00		
3-axle Light			$ 0.46	$ 3.38	$ 8.47		
3-axle Heavy			$ 0.61	$ 4.50	$ 11.29		
4-axle Light			$ 0.76	$ 5.63	$ 14.11		
4-axle Heavy			$ 0.91	$ 6.75	$ 16.93		
5-axle			$ 1.82	$ 13.50	$ 33.86		
6+-axle			$ 2.28	$ 16.88	$ 42.33		

[1] Total unregistered video surcharge (difference between ETC toll and unregistered video toll amount) cannot exceed $15.00 per trip. The surcharge is subject to escalation as defined below.

[2] The minimum trip toll (not per mile) by payment type for all vehicle types would be $0.50 for customers using E-ZPass, $0.63 for customers using Pay-By-Plate (Registered Video), and $0.75 for customers using Video Tolling (Unregistered Video).

[3] Escalation formulas can be found at mdta.maryland.gov/ALB270TollSetting and in Section C below.

[4] Customers can receive an early payment discount of 15% off their toll up to $5 for unregistered video trips if paid before notice is mailed.

B. How will this be implemented?

1. Minimum Toll

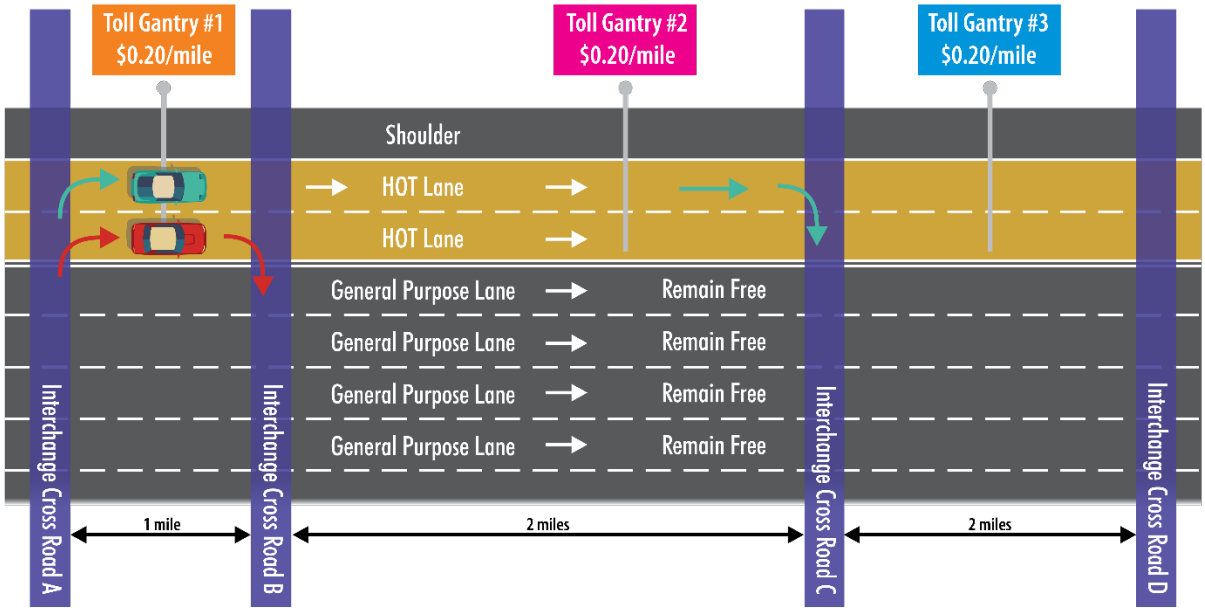
When a vehicle enters the toll facility, it will be charged a toll that is either the minimum toll rate per mile, or it will be charged the minimum toll, depending on how far the vehicle travels. The minimum toll rate is the lowest rate a vehicle would need to pay per mile, and the minimum toll is the minimum amount of money a vehicle would have to pay regardless of how far they travel. Here is an example for two different passenger vehicles traveling on the facility at the same time of day, when the toll rate is dynamically set at its lowest rate (essentially a time of very low congestion and free flowing traffic) but traveling different distances:

- Vehicle 1 travels 3 miles, at a rate of $0.20 per mile with ETC. The vehicle would be charged $0.60 for this trip with ETC.
- Vehicle 2 travels 1 mile, at a rate of $0.20 per mile with ETC. Since $0.20 is less than $0.50, the minimum toll for a single trip, the vehicle would be charged the minimum toll of $0.50 for this trip with ETC.

Vehicle 1 travels 3 miles from Cross Road A to Cross Road C = [$0.20/mile x 1 mile] + [$0.20/mile x 2 miles] = $0.60 total

Vehicle 2 travels 1 mile from Cross Road A to Cross Road B = [$0.20/mile x 1 mile] = $0.20 = $0.50 (minimum toll per trip)

Since $0.20 is less than the minimum toll of $0.50 per trip, Vehicle 2 would be charged the minimum toll of $0.50 for this trip.



2. Soft Rate Cap

Although not standard practice in the tolling industry, the MDTA is choosing to be one of only two states in the United States to set a soft rate cap to constrain the toll rate as a protective measure for customers. The soft rate cap will be implemented temporarily to control the increase of the per-mile toll rate within a given tolling segment, not a whole trip. This ensures that the motorists who choose to pay a toll have a faster and more reliable trip. The soft rate cap will always be lower than the maximum toll rate and can be exceeded only temporarily to provide customers who choose to pay a toll, a faster and more reliable trip. The new toll rate cap (increased soft rate cap) within a segment will change no more frequently than once every five minutes, at most, to ensure the rates change in response to traffic or speed levels within that tolling segment.

During operations of the HOT lanes, if throughput or speed performance metrics are not met, the per-mile toll rate charged for a segment would temporarily increase to a revised toll rate cap. The throughput and speed performance metrics are as follows:

- The average traffic volume measured within a tolling segment during the preceding five-minute period does not exceed 1,600 PCEphpl. The PCE calculation assumes a factor of 1 for 2-axle vehicles and a factor of 2.5 for each 3-or-more-axle vehicle.

- The average speed measured in a segment during the preceding five-minute period is 50 mph or higher.

If either of these criteria are not met, the per-mile toll rates charged for that segment may temporarily exceed the soft rate cap and require vehicles to pay an increased (revised) toll rate. In these instances, the new, temporary toll rate cap for that segment will be calculated by multiplying the prior toll rate cap (either the soft rate cap or the previously revised toll rate cap when the performance metrics were not met) by a demand factor between 1.05 and 1.25, as described below:

Toll Rate Cap X Demand Factor = Revised Toll Rate Cap

The demand factor to adjust the revised toll rate cap in a segment is relevant to the average traffic volume or average speed measured in that segment during the preceding five-minute period as shown in Table IV-2:

Table IV-2: Demand Factor

Average Traffic Volume (PCEphpl)	Average Speed (mph)	Demand Factor
Greater than or equal to 1,600 and less than 1,650	Less than 50	1.05
Greater than or equal to 1,650 and less than 1,700	Less than 50	1.10
Greater than or equal to 1,700 and less than 1,750	Less than 50	1.15
Greater than or equal to 1,750 and less than 1,800	Less than 50	1.20
Greater than or equal to 1,800	Less than 50	1.25

Note that more flexibility is given in selecting demand factors for speeds below 50 mph to better ensure that motorists experience a faster and more reliable trip at or above 45 mph. With the speed performance metric, the developer can apply a demand factor ranging from 1.05 to 1.25.

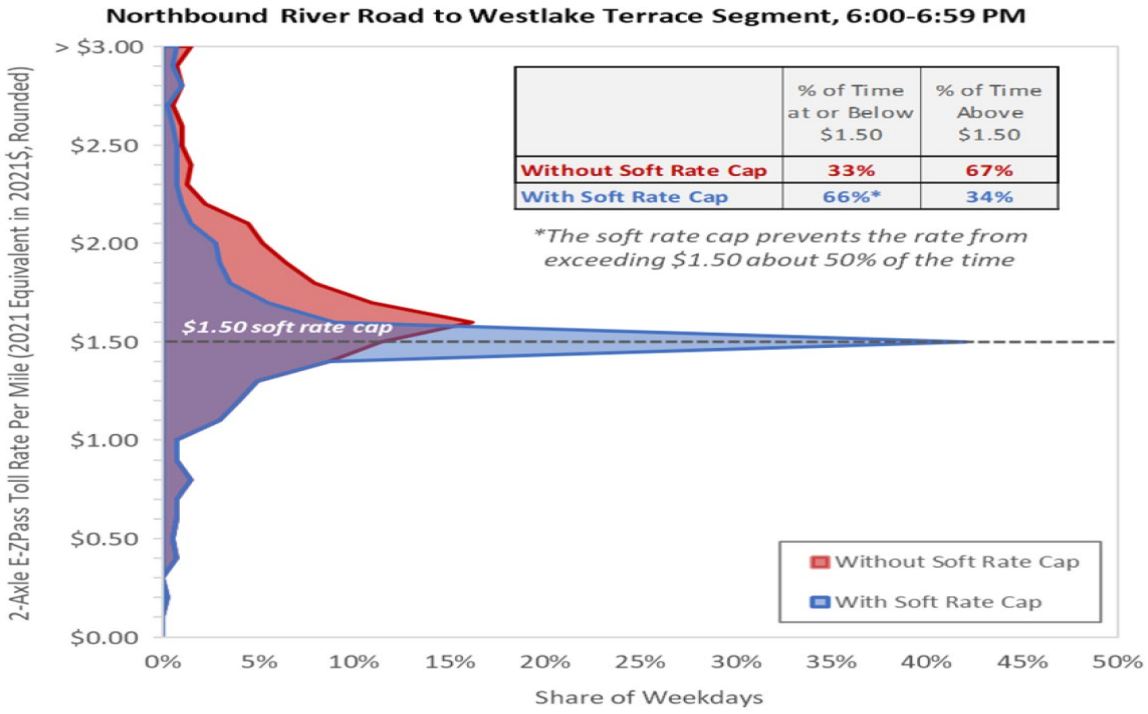
Also note that a speed threshold of 50 mph is used here with the soft rate cap. This is higher than the 45 mph overall minimum speed desired for the HOT lanes. The 5 mph buffer is included here because the speeds are monitored in the previous 5-minute period to make toll rate changes in the next 5-minute period.

The toll rate will gradually return to the original soft rate cap after the throughput and speed performance metrics are met (the average traffic volume in a segment is below 1,600 PCEphpl and the average speed is at or above 50 mph). In these situations, the temporary, revised toll rate cap will be calculated by multiplying the prior revised toll rate cap by a demand factor of 0.90, which will decrease the revised toll rate until the revised toll rate cap equals the soft rate cap.

The revised toll rate cap cannot exceed the maximum toll rate. To help illustrate the mechanism by which the soft rate cap will be implemented, a link to a short video has been included with the material, and will be posted on the webpage (Attachment Section).

The soft rate cap benefits customers by lowering toll rates. Graph IV-3 shows the estimated percentage of weekdays toll rates are expected to be at or below the soft rate cap of $1.50 and above the soft rate cap for a northbound HOT lane segment between River Road on I-495 and Westlake Terrace on I-270 West Spur during the six o'clock hour. The Graph IV-3 illustrates toll rates would be higher without the soft rate cap.

Graph IV-3: Estimated Weekday Toll Rate Frequency Example



Within this segment, without the soft rate cap, shown in red, about one-third of weekdays would have rates at or below $1.50 per mile. Whereas with the soft rate cap, shown in blue, about two-thirds of weekdays would have rates at or below $1.50. The frequency of the per mile rate at or below $1.50 doubles with the soft rate cap because the traffic metrics tied to the cap constrain the per mile rate, providing toll protection to customers. The compression of the toll rate is shown in the blue point extending to the right. Without the soft rate cap, the toll rate would rise into the solid red area above the $1.50 soft rate cap.

The Tables IV-4 and IV-5 show the estimated number of non-holiday weekdays that the soft rate cap could be reached, but not allowed to increase (green columns), or reached and exceeded due to traffic conditions (red columns). The soft rate cap is generally reached and/or exceeded between 4:00 PM to 6:00 PM, primarily on the inner loop. The highest occurrences are at or near the American Legion Bridge.

For example, in the 6:00 PM to 6:59 PM column in the third row from the top - from River Road to I-495 (inner loop), East of the I-270 West Spur - it is estimated the soft rate cap would be reached but not allowed to be exceeded on about 186 weekdays, or about 74 percent of the time. It is estimated that the developer could have charged a rate higher than the soft rate cap on these weekdays if the soft rate cap would not have been in place. However, with the soft rate cap in place, it is estimated the volume and speed thresholds allowing the rate to go above the soft rate cap were not met on these 186 weekdays. In this same time period and segment, it is estimated that the soft rate cap would be exceeded on about 34 weekdays, or about 14 percent of the time. On these days, either the speed or volume performance metric was not met, allowing the toll rate to rise above the soft rate cap.

Table IV-4: Estimated Frequency Soft Rate Cap is Exceeded and Prevented from Increasing (Count)

Segment	5:00AM to 6:59AM		7:00AM to 8:59AM		9:00AM to 9:59AM		10:00AM to 2:59PM		3:00PM to 3:59PM		4:00PM to 5:59PM		6:00PM to 6:59PM		7:00PM to 7:59PM		8:00PM to 11:59PM		12:00AM to 5:59AM	
	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Exceeded Due to Traffic Conditions
George Washington Parkway to River Road (ALB IL)	-	-	34	60	1	1	-	-	2	2	168	80	155	74	4	4	-	-	-	-
River Road to George Washington Parkway (ALB OL)	-	-	-	-	1	1	-	-	5	6	32	22	5	6	-	-	-	-	-	-
River Road to I-495 (East of I-270 West Spur) (IL)	-	-	-	4	-	-	-	-	-	-	3	29	34	186	1	7	-	-	-	-
I-495 (East of I-270 West Spur) to River Road (OL)	-	-	-	-	-	-	-	-	1	4	11	51	1	7	-	-	-	-	-	-
River Road to Westlake Terrace (MD I-495 IL / I-270 W Spur NB)	-	-	-	-	-	-	-	-	-	-	156	74	85	85	-	-	-	-	-	-
Westlake Terrace to River Road (MD I-495 OL / I-270 W Spur SB)	-	-	-	-	1	1	-	-	-	-	5	14	1	4	-	-	-	-	-	-
I-270 East Spur to I-270 @ East Spur/West Spur Interchange (NB)	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-
I-270 @ East Spur/West Spur Interchange to I-270 East Spur (SB)	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westlake Terrace to Wootton Parkway (I-270 NB)	-	-	-	-	-	-	-	-	-	-	34	48	29	47	-	-	-	-	-	-
Wootton Parkway to Westlake Terrace (I-270 SB)	-	-	-	-	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wootton Parkway to Gude Drive (I-270 NB)	-	-	-	-	-	-	-	-	-	-	39	27	49	27	-	-	-	-	-	-
Gude Drive to Wootton Parkway (I-270 SB)	-	-	4	2	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gude Drive to I-370 (I-270 NB)	-	-	-	-	-	-	-	-	-	-	53	29	72	30	-	-	-	-	-	-
I-370 to Gude Drive (I-270 SB)	-	-	9	4	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table IV-5: Estimated Frequency Soft Rate Cap is Exceeded and Prevented from Increasing (Percentage)

Segment	5:00AM to 6:59AM		7:00AM to 8:59AM		9:00AM to 9:59AM		10:00AM to 2:59PM		3:00PM to 3:59PM		4:00PM to 5:59PM		6:00PM to 6:59PM		7:00PM to 7:59PM		8:00PM to 11:59PM		12:00AM to 5:59AM	
	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Exceeded Due to Traffic Conditions
George Washington Parkway to River Road (ALB IL)	-	-	13%	24%	1%	1%	-	-	1%	1%	67%	32%	61%	29%	1%	2%	-	-	-	-
River Road to George Washington Parkway (ALB OL)	-	-	-	-	1%	1%	-	-	2%	2%	13%	9%	2%	2%	-	-	-	-	-	-
River Road to I-495 (East of I-270 West Spur) (IL)	-	-	-	2%	-	-	-	-	-	-	1%	12%	14%	74%	1%	3%	-	-	-	-
I-495 (East of I-270 West Spur) to River Road (OL)	-	-	-	-	-	-	-	-	1%	2%	5%	20%	1%	3%	-	-	-	-	-	-
River Road to Westlake Terrace (MD I-495 IL / I-270 W Spur NB)	-	-	-	-	-	-	-	-	-	-	62%	29%	34%	34%	-	-	-	-	-	-
Westlake Terrace to River Road (MD I-495 OL / I-270 W Spur SB)	-	-	-	-	1%	1%	-	-	-	-	2%	6%	1%	2%	-	-	-	-	-	-
I-270 East Spur to I-270 @ East Spur/West Spur Interchange (NB)	-	-	-	-	-	-	-	-	-	-	-	-	-	1%	-	-	-	-	-	-
I-270 @ East Spur/West Spur Interchange to I-270 East Spur (SB)	-	-	-	-	-	1%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westlake Terrace to Wootton Parkway (I-270 NB)	-	-	-	-	-	-	-	-	-	-	14%	19%	12%	19%	-	-	-	-	-	-
Wootton Parkway to Westlake Terrace (I-270 SB)	-	-	-	-	1%	1%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wootton Parkway to Gude Drive (I-270 NB)	-	-	-	-	-	-	-	-	-	-	15%	11%	20%	11%	-	-	-	-	-	-
Gude Drive to Wootton Parkway (I-270 SB)	-	-	2%	1%	2%	2%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gude Drive to I-370 (I-270 NB)	-	-	-	-	-	-	-	-	-	-	21%	12%	29%	12%	-	-	-	-	-	-
I-370 to Gude Drive (I-270 SB)	-	-	3%	2%	2%	2%	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Number of weekdays based on 252 days

3. Maximum Toll Rate

The maximum toll rate is the ceiling for the toll rate range, and it cannot be exceeded under any circumstances. The actual toll rates will be responsive to real-time traffic, so it is important to note that the MDTA's modeling work shows that the probability of reaching the maximum toll rate within a tolling segment is very small. The probability is the highest on the Northbound direction of Phase 1 South, north of the American Legion Bridge. Maximum toll rates are typically not used for HOT lane facilities and add a protection to customers. It is also important to note that motorists will continue to be able to use the free general-purpose lanes at any time.

C. Escalation

The minimum and maximum per mile toll rates, soft rate toll caps, minimum tolls, and unregistered video surcharge will be escalated from the 2021 rates (2021$) shown in Table IV-1 using the escalation factors. These factors will be set by the MDTA Board and will be escalated annually on July 1.

For the toll rate ranges to work effectively (i.e., ensure an average speed of 45 mph or more), the toll rate ranges must increase over time. Based on supply and demand, the rate must be scaled because the HOT lane capacity is fixed at two lanes (supply); however, demand will change based on employment, per capita income, and population factors. Customers choose to use the HOT lanes based on their perceived relationship between the value of money and time saved. Value of money changes over time (i.e., a dollar today is likely worth more than a dollar in the future). Escalation factors allow the minimum toll rate, soft rate cap, and maximum toll rate to increase proportionally as the value of money changes over time
The reason for this adjustment is to ensure the toll rates can keep up with demand and inflation and the HOT lanes can meet the purpose of providing customers who choose to pay a toll a safer, faster and more reliable driving experience.

1. Minimum Toll Rate Escalation Factor

The minimum toll rate escalation factor determines the annual adjustment to the minimum per mile toll rates and minimum toll rates. The escalation is needed to cover any annual increases in the cost to collect the tolls. The traffic demand does not affect the minimum toll.

The minimum toll rate per mile and the minimum toll per trip will be escalated annually using one escalation factor: the consumer price index (CPI). The CPI will be the CPI-U (Washington Metro) for all items based on the CPI from January of that year, as designated by the United States Bureau of Labor Statistics under the code CUURS35ASA0.

The minimum toll rate in any given year is proposed to be calculated as follows:

$$Rate_x = Rate_{2021} * CPI_x / CPI_{2021}$$

Where:

X = current year
$Rate_x$ = minimum toll rate in year x
$Rate_{2021}$ = minimum toll rate established in the 2021 toll setting
CPI_x = Washington Metro CPI in January of year x
CPI_{2021} = Washington Metro CPI in January 2021

2. Maximum Toll Rate Escalation Factor

The maximum toll rate escalation factor determines the annual adjustment to the maximum per mile toll rates, and unregistered video surcharge. Three escalation factors will be used:

- 1.1% per year population and employment real growth rate,
- 1% per year per capita personal income real growth, and
- Annual CPI inflation from January of that year (the CPI-U [Washington Metro] for all items, designated by the United States Bureau of Labor Statistics under the code CUURS35ASA0).

Increases in employment, per capita income, and population will all affect demand for the fixed two-lane HOT lanes facility. These demand factors can be predicted with confidence based on historical data. Therefore, the maximum toll rate must change over time to account for the change in demand. Annual population/employment growth has averaged 1.1% and annual real per capita income growth has averaged 1%, therefore, collectively the growth rate is approximately 2.1%. Additionally, without adjusting for demand growth, the toll rates would not provide adequate pricing flexibility to manage the traffic demand and ensure the facility will operate at an average speed of at least 45 mph.

The maximum toll rate in any given year is proposed to be calculated as follows:

$$Rate_x = Rate_{2021} * (1 + 1.1\% + 1.0\%)^{(x - 2021)} * CPI_x / CPI_{2021}$$

Where:

X = current year
$Rate_x$ = maximum toll rate in year x
$Rate_{2021}$ = maximum toll rate established in the 2021 toll setting
CPI_x = Washington Metro CPI in January of year x
CPI_{2021} = Washington Metro CPI in January 2021

This modeling approach for determining the maximum toll rate is highly accepted and expected from investors/lenders, which promotes marketability and reduces risk.

3. Soft Rate Cap Escalation Factor

The soft rate cap will be escalated using the same methodology as the Maximum Toll Rate Escalation.

D. Anticipated Customer Experience

1. Comparison of Tolls to Virginia

In Maryland, Phase 1 South: American Legion Bridge I-270 to I-370 (based on traffic and revenue models):

- Most common trip is 6 miles between GW Parkway to MD 187
- Total distance between GW Parkway and I-370 is about 12 miles
- Average trip length is 7 miles
- Weekday average tolls are $4.42 Northbound per trip, $3.44 Southbound per trip (2-axle transponder, 2021 model year in 2021 dollars)

In Virginia:

- Average toll rates for Virginia's managed lanes on I-495 and I-95 are $5.40 and $8.45 per trip, respectively
- On I-495, 85 percent of trips were less than $12 and 82 percent of customers spend less than $20 a month
- On the Virginia I-95 Express Lanes, 74 percent of customers spend less than $20 a month

2. Average Tolls

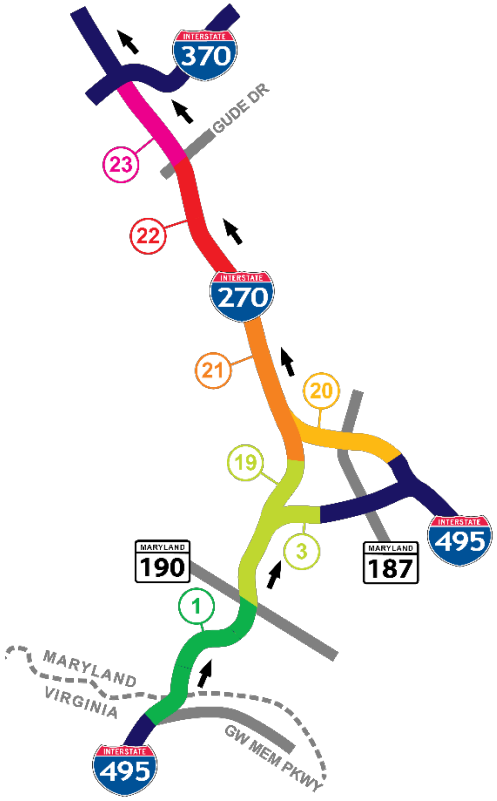
The following table provides the average toll rates predicted by the traffic and revenue models based on 2021 traffic volume and 2021 prices. These numbers are provided for illustrative purposes, and may be different in the future, as traffic volumes and average toll rates depend on many factors.

Table IV-6: Average Tolls

Direction	5 AM	6 AM	7 & 8 AM	9 AM	10 AM & 11 AM	12 PM & 1 PM	2 PM	3 PM	4 & 5 PM	6 PM	7 PM	8 PM	12 PM to 4 AM	Daily
Average Toll Paid Per Mile (2021$)														
Northbound	$0.21	$0.51	$0.60	$0.45	$0.23	$0.31	$0.53	$0.70	$1.33	$1.31	$0.49	$0.21	$0.21	$0.66
Southbound	$0.24	$0.52	$0.78	$0.77	$0.33	$0.31	$0.29	$0.45	$0.69	$0.51	$0.21	$0.21	$0.21	$0.50
Total	$0.24	$0.52	$0.72	$0.64	$0.28	$0.31	$0.41	$0.60	$1.08	$1.01	$0.41	$0.21	$0.21	$0.58
Average Toll Paid (2021$)														
Northbound	$1.29	$3.43	$3.51	$2.62	$1.57	$2.09	$3.51	$4.66	$9.41	$9.30	$3.47	$1.25	$0.44	$4.42
Southbound	$2.13	$3.95	$5.36	$5.20	$2.41	$2.11	$1.77	$2.77	$4.53	$3.35	$1.50	$0.94	$0.74	$3.44
Total	$1.97	$3.81	$4.62	$4.06	$2.00	$2.10	$2.66	$3.84	$7.38	$6.99	$2.86	$1.20	$0.62	$3.95
Average Trip Length (miles)														
Northbound	6.25	6.73	5.81	5.80	6.87	6.82	6.61	6.63	7.05	7.08	7.02	6.04	2.15	6.66
Southbound	8.76	7.62	6.87	6.79	7.33	6.84	6.19	6.20	6.57	6.63	7.09	4.54	3.60	6.89
Total	8.30	7.39	6.45	6.35	7.11	6.83	6.41	6.44	6.85	6.91	7.04	5.81	3.00	6.77

3. Potential Trips

The image below shows example trip costs in toll segments along Phase 1 South: American Legion Bridge I-270 to I-370 in off-peak and peak traffic conditions heading ***northbound***, originating just south of the American Legion Bridge, and exiting at either MD 190, MD 187, or I-370. The tables show examples of total trip tolls and per mile tolls by segment for off-peak conditions for the 10am and 11am hours northbound and peak hour/heavy congestion conditions during the 6PM hour northbound. For example, during peak hours or heavy congestion northbound, the total cost from the American Legion Bridge to MD 190 could be $5.23 per trip, from the Bridge to MD 187 could be $10.03 per trip, and from the Bridge to I-370 could be $18.60 per trip. Using the example northbound toll rates, the graph at the bottom represents the total tolls motorists would pay traveling from Virginia to MD 190, MD 187 and I-370 at different times throughout the day.



Example Off Peak Conditions: 10 and 11 AM Northbound

495 270 NORTH

MD 190	$0.94
MD 187	$2.10
I-370	$3.07

Toll Segments	1	3	19	20	21	22	23	Total
	$0.94							$0.94
	$0.94	$1.16						$2.10
	$0.94		$0.56		$0.62	$0.58	$0.37	$3.07
Distance	2.6 mi.	3.2 mi.	2.7 mi.	1.9 mi.	3.0 mi.	2.8 mi.	1.8 mi.	
Per Mile Toll	$0.36	$0.36	$0.21	$ -	$0.21	$0.21	$0.21	

Example: A trip from VA to MD 187 during an off-peak time is calculated by adding tolls from left to right as shown below for each tolling segment traveled through:

Tolling Segment 1 ($0.94) + Tolling Segment 3 ($1.16) = **$2.10 for Total Toll**

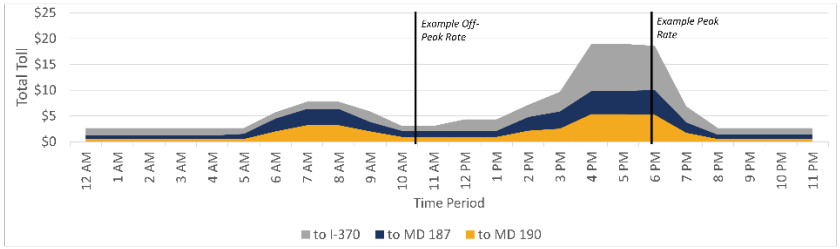
Example Peak Hour/Heavy Congestion: 6PM Northbound

495 270 NORTH

MD 190	$5.23
MD 187	$10.03
I-370	$18.60

Toll Segments	1	3	19	20	21	22	23	Total
	$5.23							$5.23
	$5.23	$4.80						$10.03
	$5.23		$3.76		$3.72	$3.47	$2.42	$18.60
Distance	2.6 mi.	3.2 mi.	2.7 mi.	1.9 mi.	3.0 mi.	2.8 mi.	1.8 mi.	
Per Mile Toll	$2.01	$1.50	$1.39	$ -	$1.24	$1.24	$1.34	

Example: Total Toll Heading Northbound

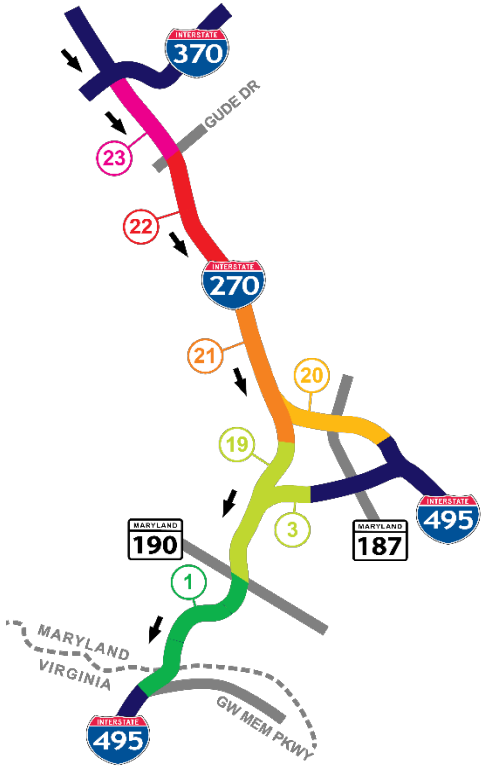


Gold line represents total toll a motorist would pay traveling from Virginia to MD 190 at different times throughout the day.

Blue line represents total toll a motorist would pay traveling from Virginia to MD 187 at different times throughout the day.

Gray line represents total toll a motorist would pay traveling from Virginia to I-370 at different times throughout the day.

The image below is similar to the previous image showing example trip costs in off-peak and peak traffic conditions heading ***southbound.*** The trips originate north of I-370 and exiting at Gude Drive, I-495 or into Virginia. In this example, during off-peak conditions heading southbound, the total cost for a trip from I-370 to Gude Drive could be $0.65 per trip, from I-370 to I-495, it could be $3.23 per trip, and from I-370 to Virginia, it could be $4.66 per trip. Using the example southbound toll rates, the graph at the bottom represents the total tolls motorists would pay traveling from I-370 to Virginia, I-495 East and Gude Drive at different times throughout the day.



Example Off Peak Conditions: 10 and 11 AM Southbound

SOUTH

GUDE DR	$0.65
495 N BELT	$3.23
VIRGINIA	$4.66

Toll Segments	23	22	21	20	19	3	1	Total
	$0.65							$0.65
	$0.65	$1.01	$1.08	$0.49				$3.23
	$0.65	$1.01	$1.08		$0.98		$0.94	$4.66
Distance	1.8 mi.	2.8 mi.	3.0 mi.	1.9 mi.	2.7 mi.	3.2 mi.	2.6 mi.	
Per Mile Toll	$0.36	$0.36	$0.36	$0.26	$0.36	$ -	$0.36	

Example: A trip from I-370 to I-495 during the off peak time is calculated by adding tolls from left to right as shown above for each tolling segment traveled through:

Tolling Segment 23 ($0.65) + Tolling Segment 22 ($1.01) + Tolling Segment 21 ($1.08) + Tolling Segment 20 ($0.49) = **$3.23 for Total Toll**

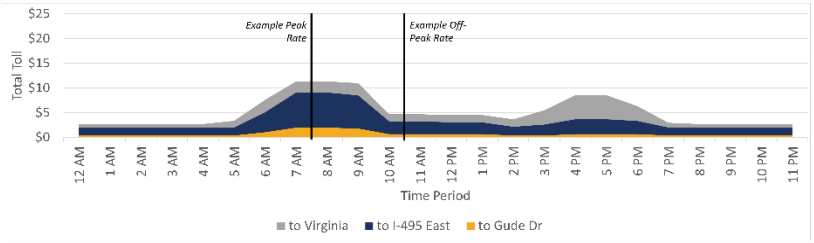
Example Peak Hour/Heavy Congestion: 7 and 8 AM Southbound

SOUTH

GUDE DR	$1.95
495 N BELT	$9.04
VIRGINIA	$11.31

Toll Segments	23	22	21	20	19	3	1	Total
	$1.95							$1.95
	$1.95	$2.89	$2.63	$1.57				$9.04
	$1.95	$2.89	$2.63		$2.23		$1.61	$11.31
Distance	1.8 mi.	2.8 mi.	3.0 mi.	1.9 mi.	2.7 mi.	3.2 mi.	2.6 mi.	
Per Mile Toll	$1.08	$1.03	$0.88	$0.83	$0.83	$ -	$0.62	

Example: Total Toll Heading Southbound



Gray line represents total toll a motorist would pay traveling from I-370 to Virginia at different times throughout the day.

Blue line represents total toll a motorist would pay traveling from I-370 to I-495 East at different times throughout the day.

Gold line represents total toll a motorist would pay traveling from I-370 to Gude Drive at different times throughout the day.

Here we show five examples of trips with potential trip tolls and potential trip time savings:

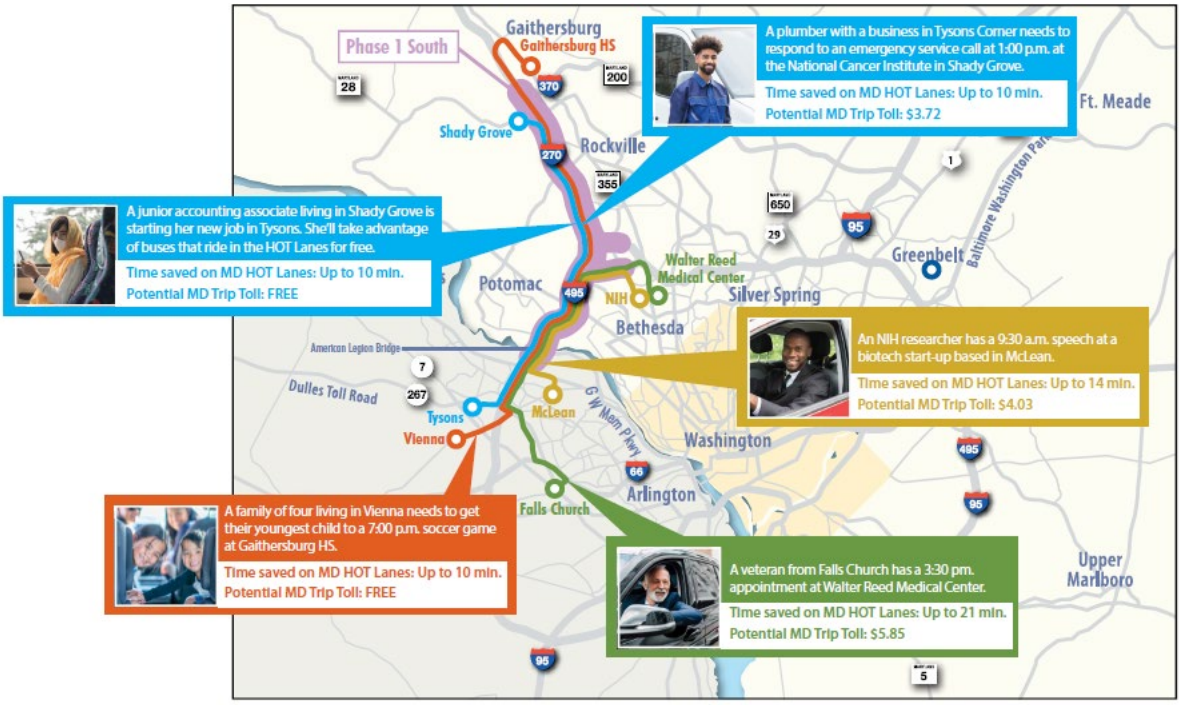
- A junior accounting associate living in Shady Grove is starting her new job in Tysons. She will take advantage of the buses that ride in the HOT lanes for free. She could save up to 10 minutes by using the MD HOT lanes. Trip: Southbound on I-370 and I-270 mainline at I-370 to I-495 mainline at GW Parkway. (Potential Trip Toll: Free)

- A veteran who lives in Falls Church must travel to Walter Reed Medical Center for needed treatment. He would save up to 21 minutes on his trip using the MD HOT lanes and up to 10 minutes in the free general-purpose lanes. Trip: Northbound from I-495 mainline at GW Parkway to I-495 East of MD 187. (Time of Day: 3:30PM; Potential Trip Toll: $5.85)

- An NIH researcher must give a speech at a biotech start-up based in McLean. He would save up to 14 minutes on his trip using the MD HOT lanes and up to 10 minutes in the free general-purpose lanes. Trip: Southbound from I-495 East of MD 187 to I-495 mainline at GW Parkway. (Time of Day: 9:30AM; Potential Trip Toll: $4.03)

- A plumber with a business in Tysons Corner is responding to an emergency service call at the National Cancer Institute in Shady Grove. He would save up to 10 minutes on his trip using the MD HOT lanes. Trip: Northbound from I-495 mainline at GW Parkway to I-370 and I-270 mainline at I-370. (Time of Day: 1:00PM; Potential Trip Toll: $3.72)

- A family of four living in Vienna wants to cheer on their youngest child who has a soccer match at Gaithersburg High School. The family would save up to 10 minutes by using the MD HOT lanes. Trip: Northbound from I-495 mainline at GW Parkway to I-370 and I-270 mainline at I-370. (Time of Day: 7:00PM; Potential Trip Toll: Free)



Key Takeaways:

- The MDTA Board is voting on a proposal which includes toll rate ranges (minimum rate and maximum rates), soft rate caps within the toll rate ranges, escalation factors, and discounts.
- It is expected that the customer experience will be comparable to what is seen in Virginia on neighboring dynamically priced facilities.

V. Communications Plan and Schedule

DATE	ACTIVITY
Thursday, May 20	Board meeting Post Board Book to MDTA Website Issue news release Elected official notification MDTA employee email Social Media posts Send out gov.delivery and e-blast notifications Post material to MDTA website / Virtual Information Room: https://mdta.maryland.gov/ALB270TollSetting Public comment period opens Place legal notice, comment link and form to the MDTA website
May 21- Mid-July	Place legal notices in local newspapers/MD Register • Afro American • El Tiempo • Enquirer Gazette • Frederick News-Post • Laurel Leader • Prince George's Post • Washington Hispanic • Washington Post Run digital ads • afro.com • eltiempo.com • fredericknewspost.com • Laurel Leader • thesentinel.com • washingtonhispanic.com • washingtonpost.com Additional news releases and posts to MDTA website and social media with hearing details Distribute flyers to Environment Justice communities Obtain Members' availability for hearings
Mid-July (dates to be announced)	Public hearings: • One – Call-In Testimony Public Hearing • One – In-Person Testimony Public Hearing
May 20 – August 12	Collect and document comments
August 12	Comment period closes at 5 PM
August 26	Based on public input received, present recommendation on the proposal to the Board Members by MDTA staff and to the public via the MDTA website and other public relations efforts
August 26 – October 14	Second public comment period on MDTA staff recommendation Comment period closes on October 14 at 5 PM
October 28	Final recommendation is presented for MDTA Board vote

VI. Approval to Advertise Staff's Proposal to Begin the Toll Setting Process

The proposed toll rate ranges for Phase 1 South: American Legion Bridge I-270 to I-370 will consist of minimum toll rates, soft toll rate caps, and maximum toll rates for the HOT lanes. The toll rate ranges will be set to ensure the HOT lanes operate to established operational metrics and provide managed lane users with a faster and more reliable trip. The rates will also include annual escalation factors to ensure the toll rate ranges are adequate to cover the full term of the P3 Phase Developer Agreement (anticipated to be 50 years). The proposal also includes a free passage discount that will be granted along the Phase 1 South: American Legion Bridge I-270 to I-370 HOT lanes for HOV 3+, buses and motorcycles. Toll rates will be set dynamically, meaning they could change up to every five minutes based on traffic volumes in the HOT lanes to provide customers who choose to pay a toll a faster and more reliable trip. The actual toll rates will change based on real-time traffic at each tolling point. The following encompasses the full proposal to begin the toll setting process.

A. Minimum Toll Rates

The minimum toll rate is the lowest toll rate per mile that will be charged within any tolling segment for the HOT lanes or the lowest total toll a vehicle will pay regardless of how far they travel. The minimum toll rate is intended to cover toll capture, processing and collection costs.

B. Soft Rate Caps

The soft rate cap is the toll rate amount that can only be exceeded when at least one of the following thresholds are met within a given tolling segment during the preceding five-minute period: the average traffic volume exceeds 1,600 passenger car equivalent vehicles per hour per lane (PCEphpl) or the average speed in a tolling segment is below 50 mph. The soft rate cap will always be lower than the maximum toll rate and can be exceeded only temporarily to provide customers who choose to pay a toll, a faster and more reliable trip. The soft rate cap will only be exceeded until the throughput and speed performance targets are achieved, and then the toll rate will gradually return to the soft cap or below.

MDTA is proposing the soft rate cap as a protection for our customers. The purpose of the soft rate cap is to constrain the toll rate charged to customers when throughput or speed performance targets will not otherwise be achieved. This provides protection against high prices when traffic conditions do not justify higher rates. Although not standard practice in the tolling industry, the MDTA is choosing to be one of only two states in the United States to set a soft rate cap to constrain the toll rate as a protective measure for customers.

C. Maximum Toll Rates

The maximum toll rate is the highest per-mile toll rate that may be charged within any tolling segment for the HOT lanes. The actual per-mile rate paid by customers is responsive to real-time traffic. The maximum rates cannot be exceeded under any circumstance. The maximum rate will only be realized under conditions where the soft rate cap is exceeded, which would be during times of deteriorating performance. In extremely rare circumstances, when traffic demand is very high and customers are experiencing decreased speeds in a given tolling segment, the toll rate may reach the maximum toll rate.

The toll rate is determined on a segment-by-segment basis. The maximum toll rate is required for the most congested tolling segments and likely would not come into effect for many segments.

D. Escalation

The MDTA staff proposes the minimum and maximum per-mile toll rates, soft rate caps, minimum toll, and unregistered video surcharge escalate annually. The adjustments are necessary to ensure the toll rates will keep up with (1) the growing traffic demand for the HOT lanes, (2) annual inflation, and (3) the goal of providing a faster and more reliable trip for customers who choose to pay the toll. The minimum per-mile toll rate and minimum toll would be escalated based on inflation only.

E. Proposed Toll Rate Ranges

The proposed toll rate ranges are provided in cost per mile ($/mile). Table IV-1 previously presented in this book provides the minimum and maximum toll rate ranges and soft rate caps within, for all vehicle classifications and all payment types: Electronic Toll Collection/*E-ZPass* (ETC), Pay-By-Plate (registered video), or Video Tolling (unregistered video). The vehicle classifications and payment methods and associated multipliers are consistent with existing MDTA facilities.

We are seeking the Board's approval to proceed with public hearings for the proposal noted above.

VII. Attachments

The following items are included as attachments to this MDTA Board book. All of the information will be posted to the MDTA website on the same day as the Board meeting, contingent on approval from the MDTA Board to move ahead with the process.

Attachment 1: Toll Rate Range Setting Process Virtual Boards

Attachment 2: Toll Rate Range Setting Process Virtual Boards Script (accompanies the boards)

Attachment 3: Soft Rate Cap Video and Script

Attachment 4: Vehicle Classifications

A. Attachment 1: Toll Rate Range Setting Process Virtual Boards

WELCOME!

Public Hearing
Virtual Information Room

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

Purpose of the public hearings for the Phase 1 South Toll Rate Range Setting Process

- The hearings will provide an opportunity for the public to comment on the Toll Rate Range Proposal for Phase 1 South: American Legion Bridge I-270 to I-370.
- Verbal testimony and written comments will be part of the official record reviewed by the MDTA Board and the MDTA Executive Director.
- The public comment period starts on May 20, 2021, and closes on August 12, 2021, at 5 p.m.
- Hearing materials should be reviewed online prior to attending a hearing; if you are unable to access the materials, email **mdtaeeo@mdta.maryland.gov** or call 410-537-6720.

Overview

mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

When are the public hearings and how do I comment on the tolling proposal?

The MDTA is planning virtual and in-person public hearings to seek public testimony on the proposed toll rate ranges for Phase 1 South: American Legion Bridge I-270 to I-370. Registration to provide testimony at a public hearing will open once the public hearing dates are announced. There will be no formal presentation during the public hearings, and no responses to questions will be given. The public will be able to listen live to the hearings via telephone or by watching a livestream at mdta.maryland.gov/ALB270TollSetting.

Dates and details will be provided in future announcements for public hearings to be scheduled during the comment period.

Beginning May 20, 2021, public comment is being accepted, and all public hearing materials are available in the Virtual Information Room at mdta.maryland.gov/ALB270TollSetting. Written comments and call-in testimony through voicemail will be accepted for the official record through Thursday, August 12, 2021 at 5 p.m.:

- Submit an electronic comment form at mdta.maryland.gov/ALB270TollSetting;
- Download and email a completed comment form to ALB270TollSetting@mdta.maryland.gov;
- Print and mail a completed comment form to Phase 1 South: American Legion Bridge I-270 to I-370 Toll Rate Range Public Comment, Maryland Transportation Authority, 2310 Broening Highway, Baltimore, MD 21224; or
- Provide call-in testimony at 855-701-1977 and leave a single voicemail that is limited to three minutes.

ALL COMMENTS received, whether at the hearing or through other methods, will be given EQUAL CONSIDERATION.

If you are unable to access the hearing materials online, or if you require special accommodations under the Americans with Disabilities Act or require language translation services (free of charge), please contact the MDTA's Title VI Officer at mdtaeeo@mdta.maryland.gov or at 410-537-6720.

Overview mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

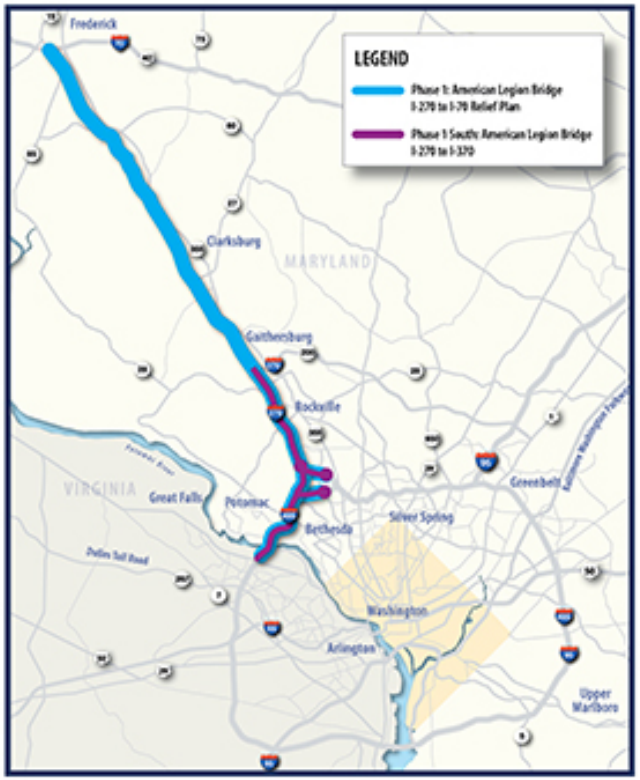
PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

What is Phase 1 South of the Phase 1: American Legion Bridge I-270 to I-70 Relief Plan?

- The **Phase 1: American Legion Bridge I-270 to I-70 Relief Plan** is a historic effort to reduce congestion for millions of travelers in the National Capital Region.
- The **Phase 1 South** Toll Rate Range Setting Process is focusing on the American Legion Bridge up to I-270, and north along I-270 to I-370 to address the regionally significant congestion bottleneck.



Overview

mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

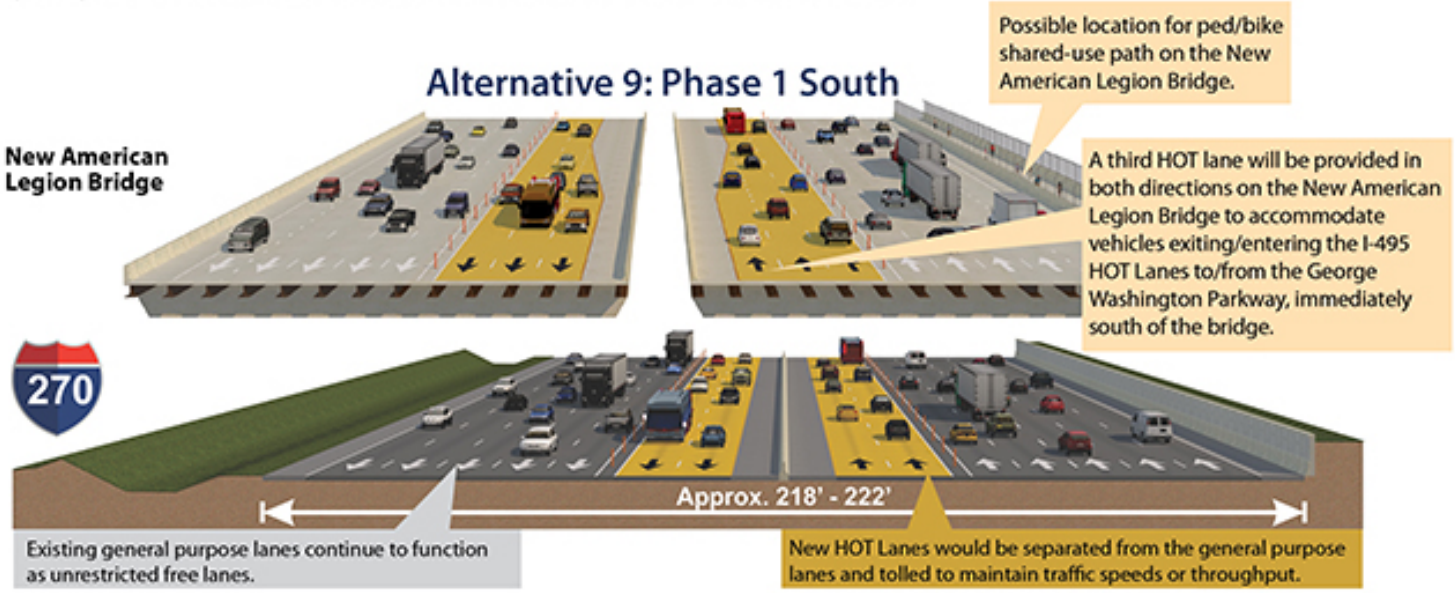
Maryland Transportation Authority
MDTA

American Legion Bridge I-270 to I-370

What is being tolled within Phase 1 South?

The Maryland Department of Transportation (MDOT) State Highway Administration (SHA) has identified Alternative 9: Phase 1 South as the Recommended Preferred Alternative for the Managed Lanes Study (MLS)*.

- Alternative 9: Phase 1 South adds two high-occupancy toll (HOT) lanes in each direction across the New American Legion Bridge to I-270. Along I-270 to I-370, it converts one existing high occupancy vehicle (HOV) lane to a HOT lane and adds one HOT lane in each direction.



*The MLS is following the National Environmental Policy Act (NEPA) process and will result in a Final Environmental Impact Statement (FEIS) and Record of Decision (ROD). The NEPA process is running on a separate independent track from the Phase 1: American Legion Bridge I-270 to I-70 Relief Plan and the Phase 1 South Toll Rate Range Setting Process. Tolls will not be implemented if the FEIS and ROD do not include a managed lanes build alternative.

Overview

mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

How do HOT lanes benefit everyone?

- HOT lanes operate at 45 mph or higher while average speeds in the general purpose lanes also improve as drivers choosing HOT lanes help to reduce the number of vehicles in the general purpose lanes.
- Improvements in speed and travel time encourage use of interstate and reduce cut-through traffic on local roadways.
- The free passage discount will be granted along the Phase 1 South HOT lanes for HOV 3+, buses and motorcycles.
- By granting free passage to HOV 3+, buses and motorcycles, these new lanes will: give people a more reliable trip, provide more equitable opportunities with the option to travel free, reduce dependence on single-occupancy vehicles (SOV) and create new opportunities for ride sharing supporting regional, planning efforts to expand HOT/HOV usage.
- Operationally compatible with Express/HOT lanes in VA.
- Allows for increased speeds for buses in HOT lanes by providing free-flow traffic and assuring a reliable trip.
- Provides HOT lane connections to existing transit service on local roads that serve offices, shops, and entertainment centers.
- Provides connections that support existing and future transit service to underserved communities and businesses.

What are HOT Lanes?

Dedicated managed lanes within highway right of way that SOV motorists may use by paying a variably priced toll. HOV 3+, buses and motorcycles may use the HOT lanes for free.

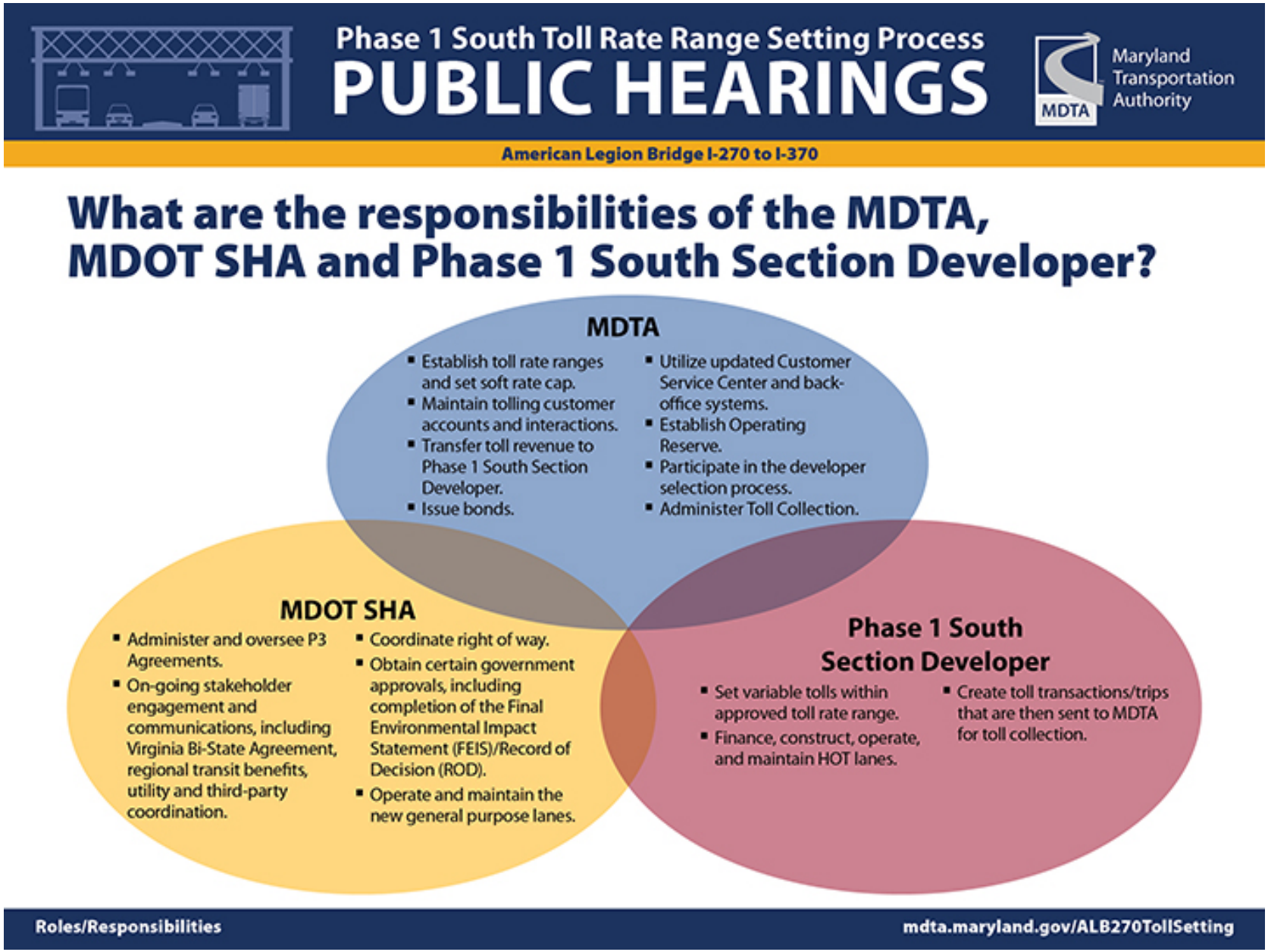
Overview

mdta.maryland.gov/ALB270TollSetting

How are the MDTA, MDOT SHA and the Developer partnering in Phase 1 South: American Legion Bridge I-270 to I-370?

- The MDTA is the only State entity with the authority to set, revise, and fix tolls for State transportation facilities; responsible for setting toll rate ranges and conducting toll collection operations for the Phase 1 South: American Legion Bridge I-270 to I-370.
- MDOT SHA is the State entity responsible for rights and obligations under the Phase 1 South: American Legion Bridge I-270 to I-370 related to program development, solicitation(s) and long-term program management.
- The Phase 1 Developer will conduct predevelopment work with the MDTA and MDOT SHA to advance the preliminary design to further avoid and minimize impacts to environmental resources, communities, properties, utilities, and other features by working with the counties, municipalities, state and federal agencies, property owners, utility providers and citizens.
- The Phase 1 South Section Developer will design and implement the toll system.

Roles/Responsibilities mdta.maryland.gov/ALB270TollSetting


Phase 1 South Toll Rate Range Setting Process
PUBLIC HEARINGS
Maryland Transportation Authority
MDTA
American Legion Bridge I-270 to I-370
What are the responsibilities of the MDTA, MDOT SHA and Phase 1 South Section Developer?
MDTA
Establish toll rate ranges and set soft rate cap.
Maintain tolling customer accounts and interactions.
Transfer toll revenue to Phase 1 South Section Developer.
Issue bonds.
Utilize updated Customer Service Center and back-office systems.
Establish Operating Reserve.
Participate in the developer selection process.
Administer Toll Collection.
MDOT SHA
Administer and oversee P3 Agreements.
On-going stakeholder engagement and communications, including Virginia Bi-State Agreement, regional transit benefits, utility and third-party coordination.
Coordinate right of way.
Obtain certain government approvals, including completion of the Final Environmental Impact Statement (FEIS)/Record of Decision (ROD).
Operate and maintain the new general purpose lanes.
Phase 1 South Section Developer
Set variable tolls within approved toll rate range.
Finance, construct, operate, and maintain HOT lanes.
Create toll transactions/trips that are then sent to MDTA for toll collection.
Roles/Responsibilities
mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

What is the responsibility of the MDTA Board?

- Following a transparent public process outlined in Maryland Annotated Code, Transportation Article §4-312 and COMAR 11.07.05 to ensure multiple opportunities for public comment and feedback, the MDTA Board will vote on the final toll rate ranges to be established for Phase I South.

Who is the MDTA Board?

- The MDTA is governed by eight citizen Board Members appointed by the Governor, and confirmed by the Senate, and chaired by the Secretary of Transportation.
  - Chairman, Gregory Slater
  - Dontae Carroll
  - William H. Cox, Jr.
  - William C. Ensor III
  - W. Lee Gaines, Jr.
  - Mario J. Gangemi, P.E.
  - John F. von Paris
  - Cynthia D. Penny-Ardinger
  - Jeffrey S. Rosen
- James F. Ports, Jr. is the Executive Director of the MDTA and oversees daily operations and is not a voting Member of the MDTA Board.

Roles/Responsibilities mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

What is the MDTA Board voting on?

- Following the hearings and public comment periods, the MDTA Board will consider all comments received and then vote on the final MDTA staff recommendation for the proposed toll rate ranges for Phase 1 South: American Legion Bridge I-270 to I-370 including:
  - Minimum toll and maximum toll rate ranges.
  - Process for annual toll escalation.
  - Toll discounts for certain types of vehicles.
- Per COMAR 11.07.05, the Executive Director may set or adjust the soft rate cap, operational metrics, or toll zones consistent with the toll rate ranges established by the MDTA Board.

What is the MDTA asking the public to comment on?

- The MDTA is seeking public comment on the minimum and maximum toll rate ranges and the soft rate cap within, process for annual toll escalation, and toll discounts.

All public comments received will be summarized, analyzed and presented to the MDTA Board as part of the final toll rate range recommendation prior to the Board vote.

Roles/Responsibilities mdta.maryland.gov/ALB270TollSetting

How are the proposed toll rate ranges for Phase 1 South different than tolls on the existing MDTA toll facilities?

- The MDTA facilities are comprised of **fixed price facilities** and **variably priced facilities** that use time of day pricing, and focus on revenue generation to allow the MDTA to construct, manage, operate, and improve the State's toll facilities.
  - **Fixed price facilities** - vehicles are subject to a set toll rate regardless of the time of day or congestion level. This applies to most MDTA facilities.
  - **Variably priced facilities** - vehicles are subject to a set toll on some or all lanes that can vary based on the time of day. These include the Intercounty Connector (ICC) and I-95 Express Toll Lanes.
- **Phase 1 South would be a variably priced facility that uses dynamic pricing**, which is new to Maryland, where vehicles are subject to a dynamic toll on the HOT lanes that vary by tolling segment and congestion level.
  - Dynamic pricing shifts the focus from revenue generation to relieving congestion by maintaining certain traffic speeds (45 mph or greater in the HOT lanes) and reliability.
  - Generally speaking, toll rates are set within established toll rate ranges to maintain free-flowing traffic and use pricing factors to influence the traffic flow – when lanes become more congested, the toll increases, and when the lanes become less congested, the toll decreases.
- The MDTA's existing toll facilities will not be impacted by the Phase 1 South Toll Rate Range Setting Process.

Tolling 101 mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

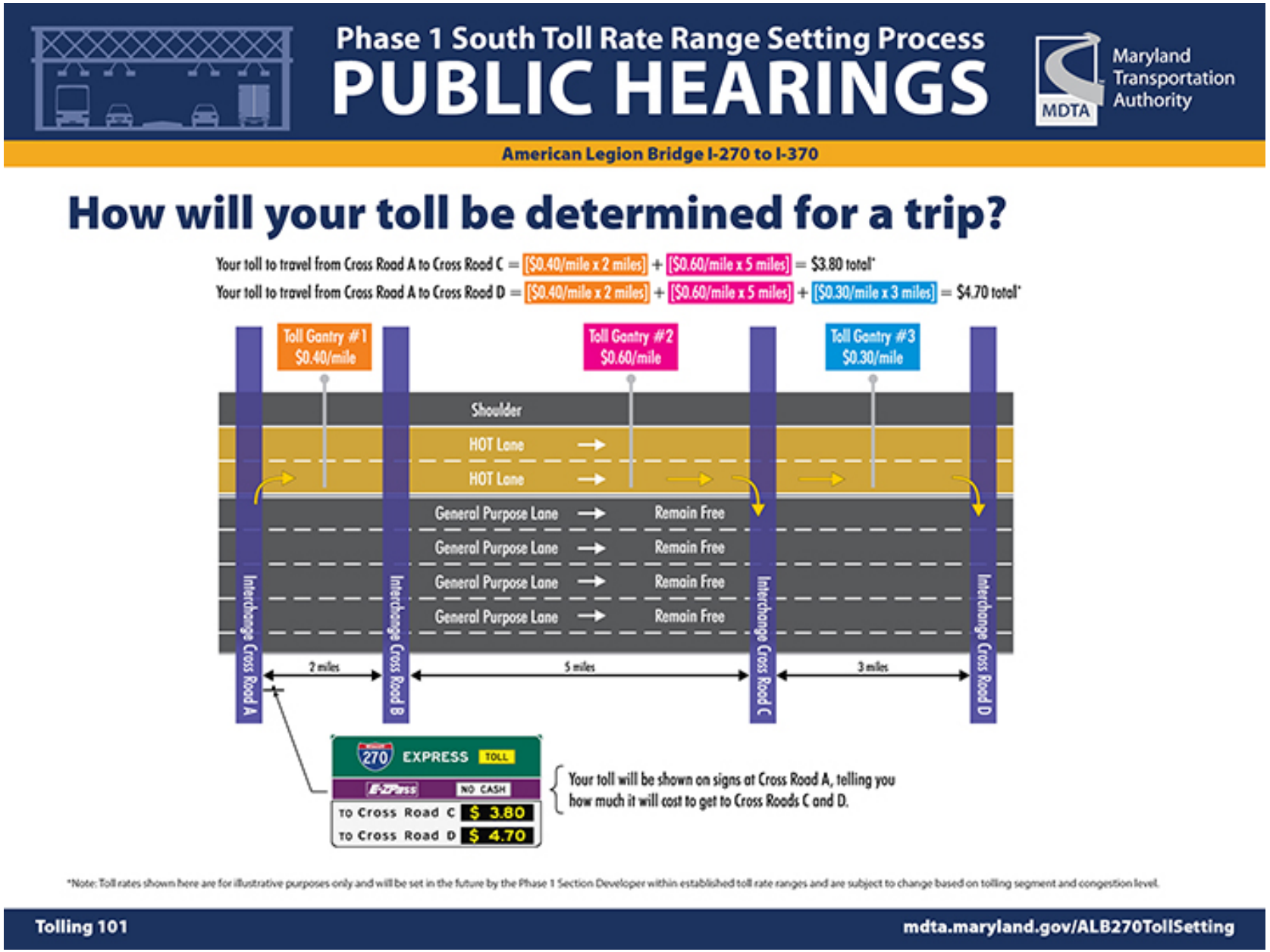
American Legion Bridge I-270 to I-370

How will dynamic pricing work on the HOT lanes?

- Toll rates will adjust as frequently as every 5 minutes, if needed, to maintain a free-flowing level of traffic (45 mph or higher).
- Toll rates will generally increase when the HOT lanes are relatively full and decrease when the HOT lanes are less full.
- Tolls will be collected electronically at highway speeds, using overhead gantries, with no toll plazas or toll booths (cashless tolling).
- Current toll rates for common destinations will be displayed on electronic roadway signs so drivers will know their toll prior to entering the HOT lanes.

- Overhead tolling gantries will be placed within each tolling segment along Phase 1 South by the Phase 1 South Section Developer (locations to be determined).
- Toll rates for each tolling segment will be set in the future by the Phase 1 South Section Developer within MDTA Board-approved toll rate ranges.

Tolling 101 mdta.maryland.gov/ALB270TollSetting


Phase 1 South Toll Rate Range Setting Process
PUBLIC HEARINGS
Maryland Transportation Authority
MDTA
American Legion Bridge I-270 to I-370
How will your toll be determined for a trip?
Your toll to travel from Cross Road A to Cross Road C = [$0.40/mile x 2 miles] + [$0.60/mile x 5 miles] = $3.80 total*
Your toll to travel from Cross Road A to Cross Road D = [$0.40/mile x 2 miles] + [$0.60/mile x 5 miles] + [$0.30/mile x 3 miles] = $4.70 total*
Toll Gantry #1 $0.40/mile
Toll Gantry #2 $0.60/mile
Toll Gantry #3 $0.30/mile
Shoulder
HOT Lane
HOT Lane
General Purpose Lane
General Purpose Lane
General Purpose Lane
General Purpose Lane
Remain Free
Remain Free
Remain Free
Remain Free
Interchange Cross Road A
Interchange Cross Road B
Interchange Cross Road C
Interchange Cross Road D
2 miles
5 miles
3 miles
270
EXPRESS
TOLL
E-ZPass
NO CASH
TO Cross Road C $ 3.80
TO Cross Road D $ 4.70
Your toll will be shown on signs at Cross Road A, telling you how much it will cost to get to Cross Roads C and D.
*Note: Toll rates shown here are for illustrative purposes only and will be set in the future by the Phase 1 Section Developer within established toll rate ranges and are subject to change based on tolling segment and congestion level.
Tolling 101
mdta.maryland.gov/ALB270TollSetting

How will tolls be collected?

- Tolls will be collected electronically via *E-ZPass*®, Pay-By-Plate or Video Tolling, as motorists keep moving at highway speeds beneath overhead gantries.

BEST ★★★

E-ZPass® Account

- *E-ZPass* customers pay the lowest tolls on every trip!
- New customers can use cash, check, money order or credit card to open an *E-ZPass* account at various locations.
- *E-ZPass* transponders are free.
- There's no monthly fee for Maryland residents.

BETTER ★★

Pay-By-Plate (registered video)

- Users without an *E-ZPass* may register their license plate and a credit card for payment.
- When registered users drive under the gantries, a video image of the vehicle's license plate will be taken and the registered credit card will be charged.
- No prepaid balance is required.
- Toll rate is 25% higher than base rate (*E-ZPass* account).

GOOD ★

Video Tolling (unregistered video)

- When users without *E-ZPass* or Pay-By-Plate accounts drive under the tolling gantries, a video image of the vehicle's license plate will be taken.
- A Notice of Toll Due will be sent to the registered owner of the vehicle for the Video Toll amount due.
- Toll rate is 50% higher than base rate (*E-ZPass* account).

Tolling 101 **mdta.maryland.gov/ALB270TollSetting**

Toll rate range proposal for Phase 1 South: American Legion Bridge I-270 to I-370

- Consists of minimum and maximum toll rate ranges, and soft rate cap within, for the HOT lanes.
- Includes annual escalation factors to ensure the toll rate ranges, soft rate cap within, minimum tolls and unregistered video surcharge are adequate to cover the full term of the Phase 1 South: American Legion Bridge I-270 to I-370 agreements (anticipated to be 50 years).
- Applies only to travel in the HOT lanes; the existing general purpose lanes will remain free and not be tolled.
- Free passage discount will be granted along the Phase 1 South HOT lanes for HOV 3+, buses and motorcycles.
- The difference between minimum and maximum toll rates create toll rate ranges, which vary by vehicle classification and payment type. Toll rates will be constrained by soft rate caps within each toll rate range and can only be exceeded in specific circumstances.

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

What does the toll rate range proposal include?

Minimum Toll Rate:

- Lowest toll rate per mile that may be charged within any tolling segment for the HOT lanes *or* the lowest total toll a customer will pay regardless of how far they travel (not per mile).
- Ensures short trips on the facility are charged a flat toll to cover toll collection costs.

Soft Rate Cap:

- Per-mile toll rate that can only be exceeded when at least one of the following thresholds are met within a given tolling segment during the preceding 5-minute period:
  - Traffic volume exceeds 1,600 passenger car equivalent vehicles per hour per lane.
  - Average speed is below 50 mph.
- Customers can choose to pay this toll for a faster, more reliable trip when traffic conditions meet the thresholds.
- The soft rate cap protects customers from price gouging when traffic conditions do not justify higher rates.

Maximum Toll Rate:

- Highest toll rate per mile that may be charged within any tolling segment for the HOT lanes.
- Under no circumstances will the maximum toll rates be exceeded.
- In extremely rare circumstances, when travel demand is very high within a given tolling segment, the toll rate may reach the maximum toll rate.

Toll Rate Range Proposal **mdta.maryland.gov/ALB270TollSetting**

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

How will the Minimum Toll Work?

The minimum toll rate is the lowest toll rate per mile that may be charged within any tolling segment for the HOT lanes *or* the lowest total toll a customer will pay regardless of how far they travel (not per mile).

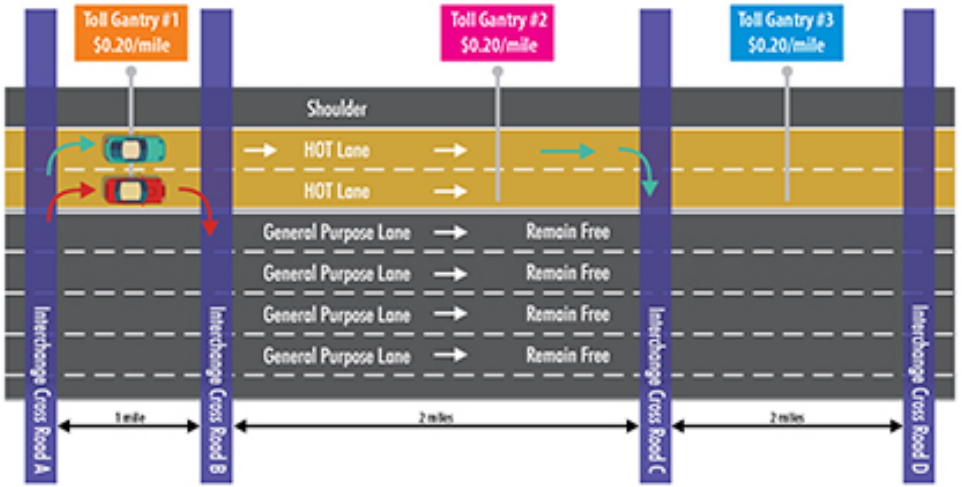
An example scenario:

- The toll rate is set at its lowest rate (very low congestion and free flowing traffic).
- **Vehicle 1** (2-axle with *E-ZPass*®) enters the toll facility and travels 3 miles.
- **Vehicle 2** (2-axle with *E-ZPass*) enters the toll facility and travels 1 mile.

Vehicle 1 travels 3 miles from Cross Road A to Cross Road C = [$0.20/mile x 1 mile] + [$0.20/mile x 2 miles] = $0.60 total

Vehicle 2 travels 1 mile from Cross Road A to Cross Road B = [$0.20/mile x 1 mile] = $0.20 = $0.50 (minimum toll per trip)

Since $0.20 is less than the minimum toll of $0.50 per trip, Vehicle 2 would be charged the minimum toll of $0.50 for this trip.



Vehicle type	Payment type	Minimum trip toll by payment type
All vehicle types	E-ZPass	$0.50
All vehicle types	Pay-By-Plate (PBP / registered video)	$0.63
All vehicle types	Video Tolling (unregistered video)	$0.75

Toll Rate Range Proposal mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

What is the Soft Rate Cap?

- The soft rate cap is a set toll rate amount within an approved toll rate range that may be temporarily exceeded when one of the following vehicle throughput or speed performance thresholds are met for a specific tolling segment:
  - Average traffic volume measured in a segment during the preceding five-minute period exceeds 1,600 passenger car equivalent vehicles per hour per lane (PCEphpl); OR
  - The average speed in a segment during the preceding five-minute period is below 50 mph.
- The soft rate cap will always be lower than the maximum toll rate, and can be exceeded only temporarily to provide customers who choose to pay a toll, a faster and more reliable trip.

Although not standard practice in the tolling industry, the MDTA is choosing to be one of only two states in the United States to set a soft rate cap to constrain the toll rate as a protective measure for customers.

Toll Rate Range Proposal mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

How will the Soft Rate Cap Work?

If the throughput or speed performance thresholds are met, the per-mile toll rates charged for a segment may temporarily exceed the soft rate cap. Vehicles would temporarily pay a toll rate for that segment that is greater than the soft rate cap.

In these instances, the **toll rate cap** (either the soft rate cap or previously revised toll rate cap) would be multiplied by a **demand factor** to calculate a new, temporary **revised toll rate cap** for that segment, as described below:

Toll Rate Cap x **Demand Factor** = **Revised Toll Rate Cap**

Average Traffic Volume (PCEphpl)	Average Speed (mph)	Demand Factor
Greater than or equal to 1,600 and less than 1,650	Less than 50	1.05
Greater than or equal to 1,650 and less than 1,700	Less than 50	1.10
Greater than or equal to 1,700 and less than 1,750	Less than 50	1.15
Greater than or equal to 1,750 and less than 1,800	Less than 50	1.20
Greater than or equal to 1,800	Less than 50	1.25

Note: With speed, the developer can apply a demand factor ranging from 1.05 to 1.25 for speeds below 50 miles per hour. More flexibility is allowed in the speed demand factors compared to the traffic demand factors shown to allow for a better pricing response during unique events.

Note that a speed threshold of 50 miles per hour is used here with the soft rate cap. This is higher than the 45 miles per hour overall minimum speed desired for the HOT lanes. The 5 mile per hour buffer is included here because the speeds are monitored in the previous 5-minute period to make toll rate changes in the next 5-minute period.

How will the toll rate return to the soft rate cap after it is exceeded?

- The toll rate will gradually return to the soft rate cap after the throughput and speed performance thresholds are not met (average traffic volume in a segment drops below 1,600 PCEphpl or average speed is at or above 50 mph).
- The revised toll rate cap will be calculated by multiplying the prior revised toll rate cap by a demand factor of 0.90, which will decrease the revised toll rate until the revised toll rate cap equals the soft rate cap.

Watch a video explaining how the Soft Rate Cap works here: mdta.maryland.gov/ALB270TollSetting

Toll Rate Range Proposal **mdta.maryland.gov/ALB270TollSetting**

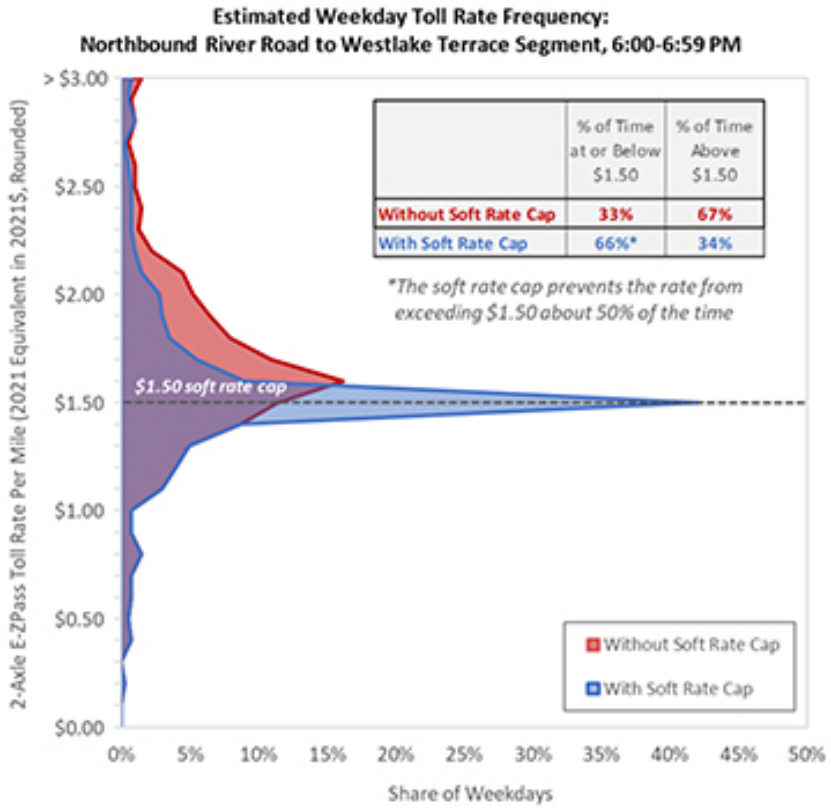
Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

How does the Soft Rate Cap Benefit Customers?



	% of Time at or Below $1.50	% of Time Above $1.50
Without Soft Rate Cap	33%	67%
With Soft Rate Cap	66%*	34%

The soft rate cap prevents the rate from exceeding $1.50 about 50% of the time

- This example shows how the soft rate cap could lower toll rates for customers.
- The example is for a northbound HOT Lanes segment between River Road on I-495 and Westlake Terrace on the I-270 West Spur for 6 o'clock PM to 6:59 PM. The red area in the graph represents estimated weekday toll rates without a soft rate cap in place. The blue area represents estimated weekday toll rates with a soft rate cap in place.
- Without the soft rate cap, shown in red, about 2/3 of weekdays would have rates above $1.50 per mile and 1/3 of weekdays with rates at or below $1.50.
- With the soft rate cap, shown in blue, about 2/3 of weekdays would have rates at or below $1.50 per mile and 1/3 of weekdays with rates above $1.50.
- The frequency of the per mile rate at or below $1.50 doubles with the soft rate cap because the traffic metrics tied to the cap constrain the per mile rate, providing toll rate protection to customers.
- Without the soft rate cap, the toll rate would rise into the solid red area above the $1.50 soft rate cap.

Toll Rate Range Proposal mdta.maryland.gov/ALB270TollSetting

Maryland Transportation Authority

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

How often will the Soft Rate Cap be Exceeded?

Segment	5:00AM to 6:59AM		7:00AM to 8:59AM		9:00AM to 9:59AM		10:00AM to 2:59PM		3:00PM to 3:59PM		4:00PM to 5:59PM		6:00PM to 6:59PM		7:00PM to 7:59PM		8:00PM to 11:59PM		12:00AM to 5:59AM	
	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Exceeded Due to Traffic Conditions
George Washington Parkway to River Road (ALB IL)	-	-	34	60	1	1	-	-	2	2	168	80	155	74	4	4	-	-	-	-
River Road to George Washington Parkway (ALB OL)	-	-	-	-	1	1	-	-	5	6	32	22	5	6	-	-	-	-	-	-
River Road to I-495 (East of I-270 West Spur) (IL)	-	-	-	4	-	-	-	-	-	-	3	29	34	186	1	7	-	-	-	-
I-495 (East of I-270 West Spur) to River Road (OL)	-	-	-	-	-	-	-	-	1	4	11	51	1	7	-	-	-	-	-	-
River Road to Westlake Terrace (MD II-495 IL / I-270 W Spur NB)	-	-	-	-	-	-	-	-	-	-	156	74	85	85	-	-	-	-	-	-
Westlake Terrace to River Road (MD II-495 OL / I-270 W Spur SB)	-	-	-	-	1	1	-	-	-	-	5	14	1	4	-	-	-	-	-	-
I-270 East Spur to I-270 @ East Spur/West Spur Interchange (NB)	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-
I-270 @ East Spur/West Spur Interchange to I-270 East Spur (SB)	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westlake Terrace to Wootton Parkway (I-270 NB)	-	-	-	-	-	-	-	-	-	-	34	48	29	47	-	-	-	-	-	-
Wootton Parkway to Westlake Terrace (I-270 SB)	-	-	-	-	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wootton Parkway to Gude Drive (I-270 NB)	-	-	-	-	-	-	-	-	-	-	39	27	49	27	-	-	-	-	-	-
Gude Drive to Wootton Parkway (I-270 SB)	-	-	4	2	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gude Drive to I-370 (I-270 NB)	-	-	-	-	-	-	-	-	-	-	53	29	72	30	-	-	-	-	-	-
I-370 to Gude Drive (I-270 SB)	-	-	9	4	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-

This table shows the estimated number of non-holiday weekdays, by assumed segments, that the soft rate cap could be reached, but not allowed to increase; or reached and to be exceeded. Red columns indicate estimated number of weekdays the soft rate cap could be exceed and green columns indicate the estimated number of weekdays the per-mile rate is limited to $1.50 to protect customers. The soft rate cap is generally reached and/or exceeded between 4-7PM, primarily on the inner loop. The highest occurrences are at or near the American Legion Bridge.

Toll Rate Range Proposal

mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

How often will the Soft Rate Cap be Exceeded?

Segment	5:00AM to 6:59AM		7:00AM to 8:59AM		9:00AM to 9:59AM		10:00AM to 2:59PM		3:00PM to 3:59PM		4:00PM to 5:59PM		6:00PM to 6:59PM		7:00PM to 7:59PM		8:00PM to 11:59PM		12:00AM to 5:59AM	
	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Exceeded Due to Traffic Conditions
George Washington Parkway to River Road (ALB IL)	-	-	13%	24%	1%	1%	-	-	1%	1%	67%	32%	61%	29%	1%	2%	-	-	-	-
River Road to George Washington Parkway (ALB OL)	-	-	-	-	1%	1%	-	-	2%	2%	13%	9%	2%	2%	-	-	-	-	-	-
River Road to I-495 (East of I-270 West Spur) (IL)	-	-	-	2%	-	-	-	-	-	-	1%	12%	14%	74%	1%	3%	-	-	-	-
I-495 (East of I-270 West Spur) to River Road (OL)	-	-	-	-	-	-	-	-	1%	2%	5%	20%	1%	3%	-	-	-	-	-	-
River Road to Westlake Terrace (MD I-495 IL / I-270 W Spur NB)	-	-	-	-	-	-	-	-	-	-	62%	29%	34%	34%	-	-	-	-	-	-
Westlake Terrace to River Road (MD I-495 OL / I-270 W Spur SB)	-	-	-	-	1%	1%	-	-	-	-	2%	6%	1%	2%	-	-	-	-	-	-
I-270 East Spur to I-270 @ East Spur/West Spur Interchange (NB)	-	-	-	-	-	-	-	-	-	-	-	-	-	1%	-	-	-	-	-	-
I-270 @ East Spur/West Spur Interchange to I-270 East Spur (SB)	-	-	-	-	-	1%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westlake Terrace to Wootton Parkway (I-270 NB)	-	-	-	-	-	-	-	-	-	-	14%	19%	12%	19%	-	-	-	-	-	-
Wootton Parkway to Westlake Terrace (I-270 SB)	-	-	-	-	1%	1%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wootton Parkway to Gude Drive (I-270 NB)	-	-	-	-	-	-	-	-	-	-	15%	11%	20%	11%	-	-	-	-	-	-
Gude Drive to Wootton Parkway (I-270 SB)	-	-	2%	1%	2%	2%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gude Drive to I-370 (I-270 NB)	-	-	-	-	-	-	-	-	-	-	21%	12%	29%	12%	-	-	-	-	-	-
I-370 to Gude Drive (I-270 SB)	-	-	3%	2%	2%	2%	-	-	-	-	-	-	-	-	-	-	-	-	-	-

As an example, from River Road to I-495 (inner loop), East of the I-270 West Spur – it is estimated the soft rate cap would be reached but not allowed to exceed 74% of weekdays and the soft rate cap would be exceeded 14% of weekdays.

Toll Rate Range Proposal mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority
MDTA

American Legion Bridge I-270 to I-370

How does the Maximum Toll Rate Work?

The maximum toll rate is the ceiling for the toll rate range, and it **cannot** be exceeded under any circumstances. Customers could choose to pay this higher toll to avoid unusually heavy traffic congestion due to events such as a severe crash or extreme weather.

- The maximum toll rate would not be applied to the entire length of the Phase 1 South but at the tolling segment(s) experiencing unusually high traffic congestion.
- The probability of reaching the maximum toll rate within a tolling segment is very small.
- The probability is highest on the Northbound portion of Phase 1 South, north of the American Legion Bridge.

Maximum Toll Rate:

- The highest rate a vehicle could ever pay per mile
- Not typically used for HOT facilities
- Added protection to toll customers

Toll Rate Range Proposal mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

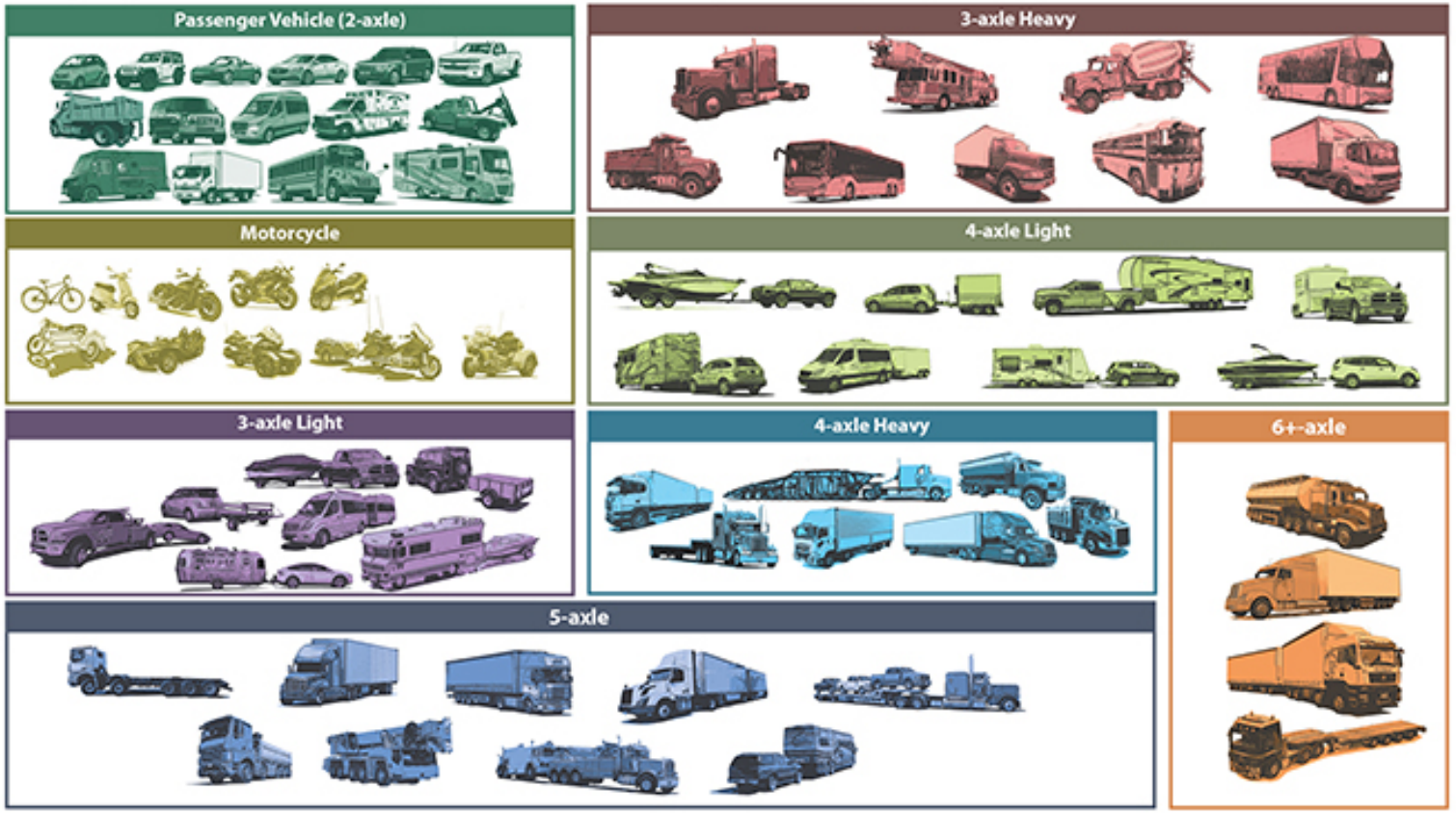
PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

Vehicle Classifications

The proposed toll rate ranges and soft rate caps within, vary based on vehicle classification.



Proposed Toll Rate Range

mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process
PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

Proposed Toll Rate Ranges, Soft Rate Caps, Discounts, and Free Passage for Vehicle Classifications by Payment Type

VEHICLE CLASSIFICATIONS	GENERAL PURPOSE LANES	HOT LANES					
		Payment Type	Proposed Toll Rate Ranges (2021$/mile)[1]			HOV 3+ Vanpools Carpools	Buses Motorcycles
			Minimum Toll Rate Range[2]	Soft Rate Cap	Maximum Toll Rate Range		
Passenger Vehicle (2-axle)	Free	Electronic Toll Collection (ETC) E-ZPass	$ 0.20	$ 1.50	$ 3.76	Free	Free
Motorcycle			$ 0.00	$ 0.00	$ 0.00		
3-axle Light			$ 0.30	$ 2.25	$ 5.64		
3-axle Heavy			$ 0.40	$ 3.00	$ 7.53		
4-axle Light			$ 0.51	$ 3.75	$ 9.41		
4-axle Heavy			$ 0.61	$ 4.50	$ 11.29		
5-axle			$ 1.21	$ 9.00	$ 22.58		
6+-axle			$ 1.52	$ 11.25	$ 28.22		
Passenger Vehicle (2-axle)	Free	Pay-By-Plate (Registered Video) (1.25x ETC)	$ 0.25	$ 1.88	$ 4.70	Free	Free
Motorcycle			$ 0.00	$ 0.00	$ 0.00		
3-axle Light			$ 0.38	$ 2.81	$ 7.05		
3-axle Heavy			$ 0.50	$ 3.75	$ 9.41		
4-axle Light			$ 0.64	$ 4.69	$ 11.76		
4-axle Heavy			$ 0.76	$ 5.63	$ 14.11		
5-axle			$ 1.51	$ 11.25	$ 28.23		
6+-axle			$ 1.90	$ 14.06	$ 35.28		
Passenger Vehicle (2-axle)	Free	Video Tolling[3, 4] (Unregistered Video) (1.5x ETC)	$ 0.30	$ 2.25	$ 5.64	Free	Free
Motorcycle			$ 0.00	$ 0.00	$ 0.00		
3-axle Light			$ 0.46	$ 3.38	$ 8.47		
3-axle Heavy			$ 0.61	$ 4.50	$ 11.29		
4-axle Light			$ 0.76	$ 5.63	$ 14.11		
4-axle Heavy			$ 0.91	$ 6.75	$ 16.93		
5-axle			$ 1.82	$ 13.50	$ 33.86		
6+-axle			$ 2.28	$ 16.88	$ 42.33		

[1] Total unregistered video surcharge (difference between ETC toll and unregistered video toll amount) cannot exceed $15 per trip. The surcharge is subject to escalation as defined below.
[2] The minimum trip toll (not per mile) by payment type for all vehicle types would be $0.50 for customers using E-ZPass®, $0.63 for customers using Pay-By-Plate (Registered Video), and $0.75 for customers using Video Tolling (Unregistered Video).
[3] Escalation formulas can be found at mdta.maryland.gov/ALB270TollSetting.
[4] Customers can receive an early payment discount of 15% off their toll up to $5 for unregistered video trips if paid before notice is mailed.

Toll Rate Range Proposal **mdta.maryland.gov/ALB270TollSetting**

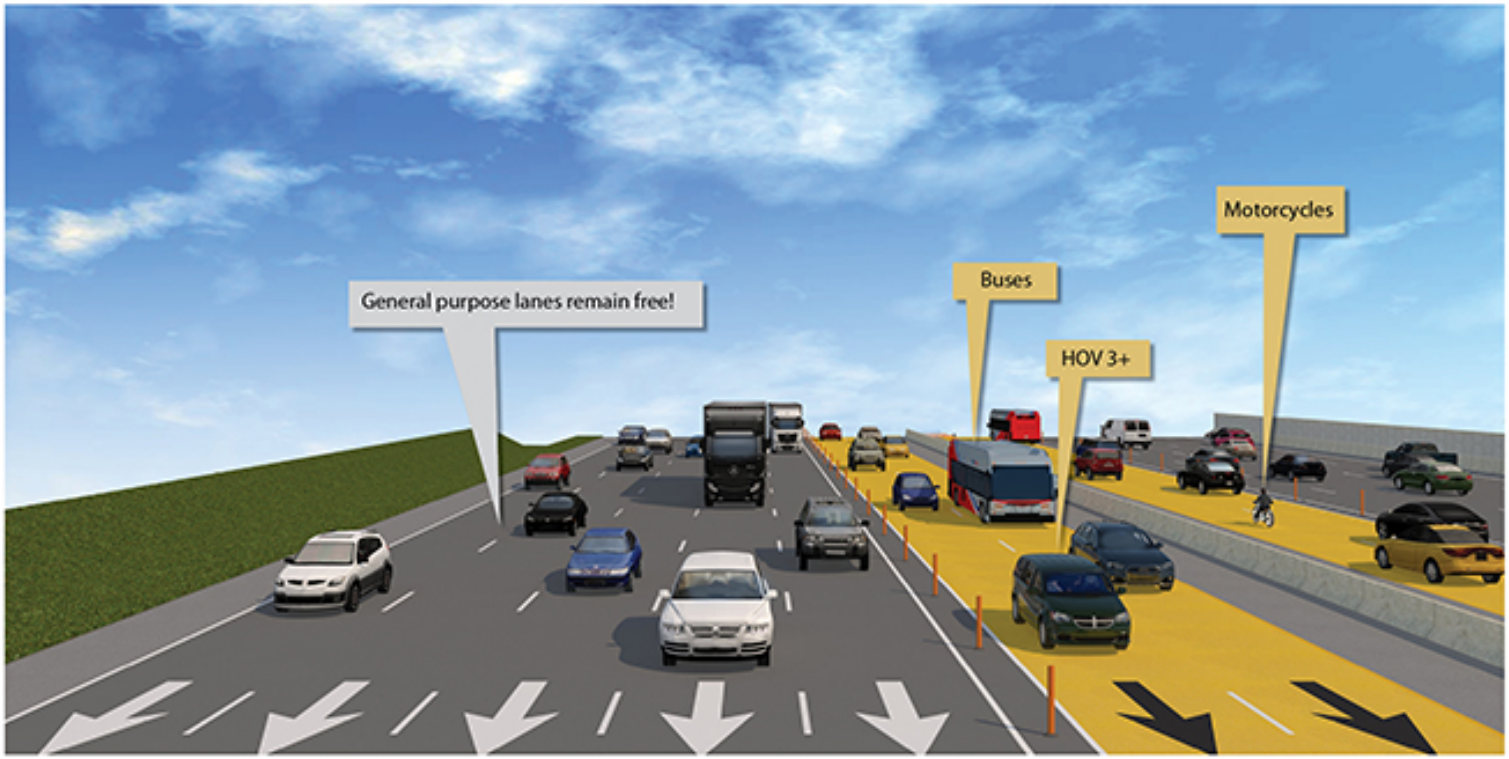
Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

Vehicles that travel for free in the HOT Lanes



Toll Rate Range Proposal

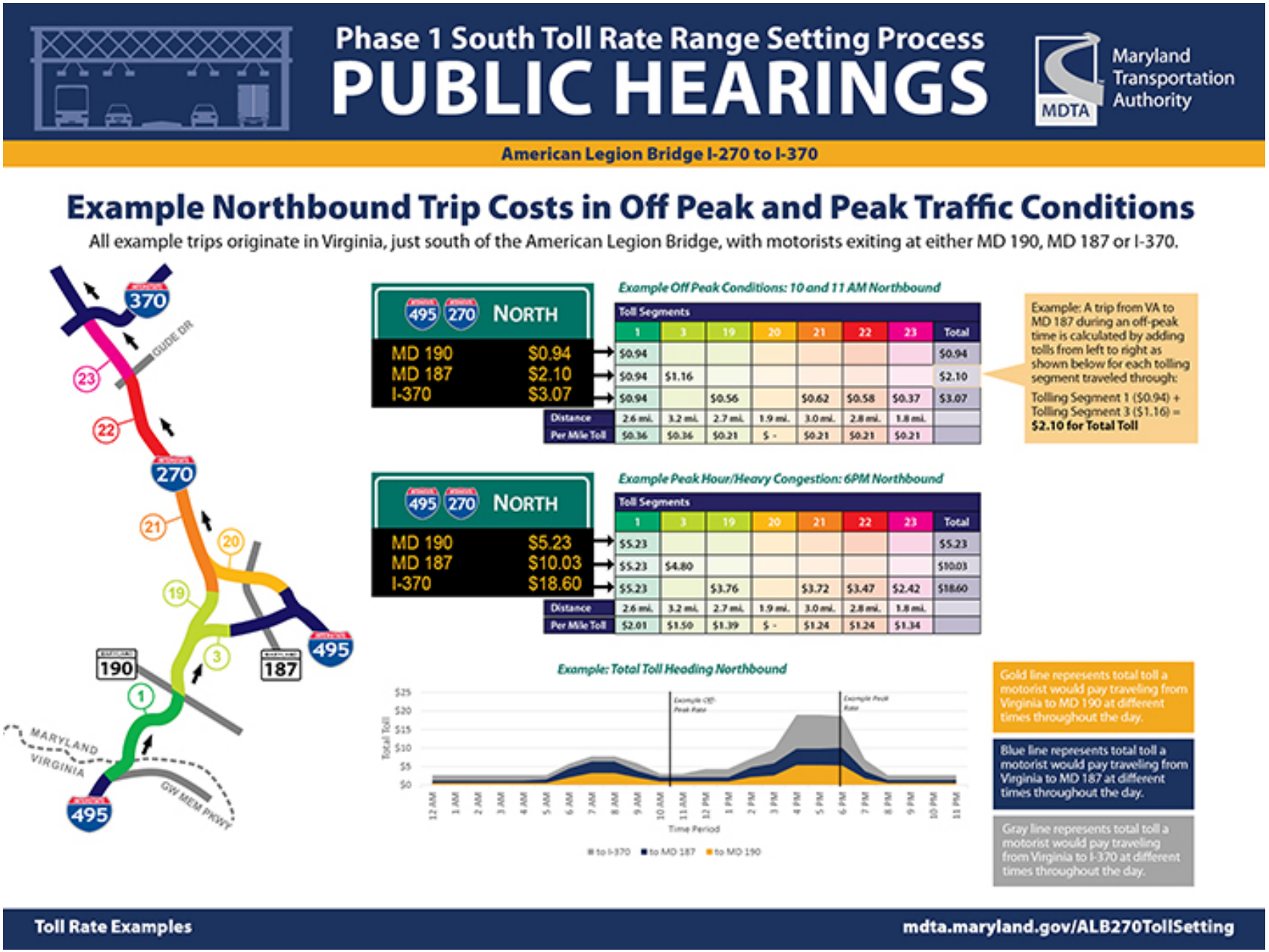
mdta.maryland.gov/ALB270TollSetting

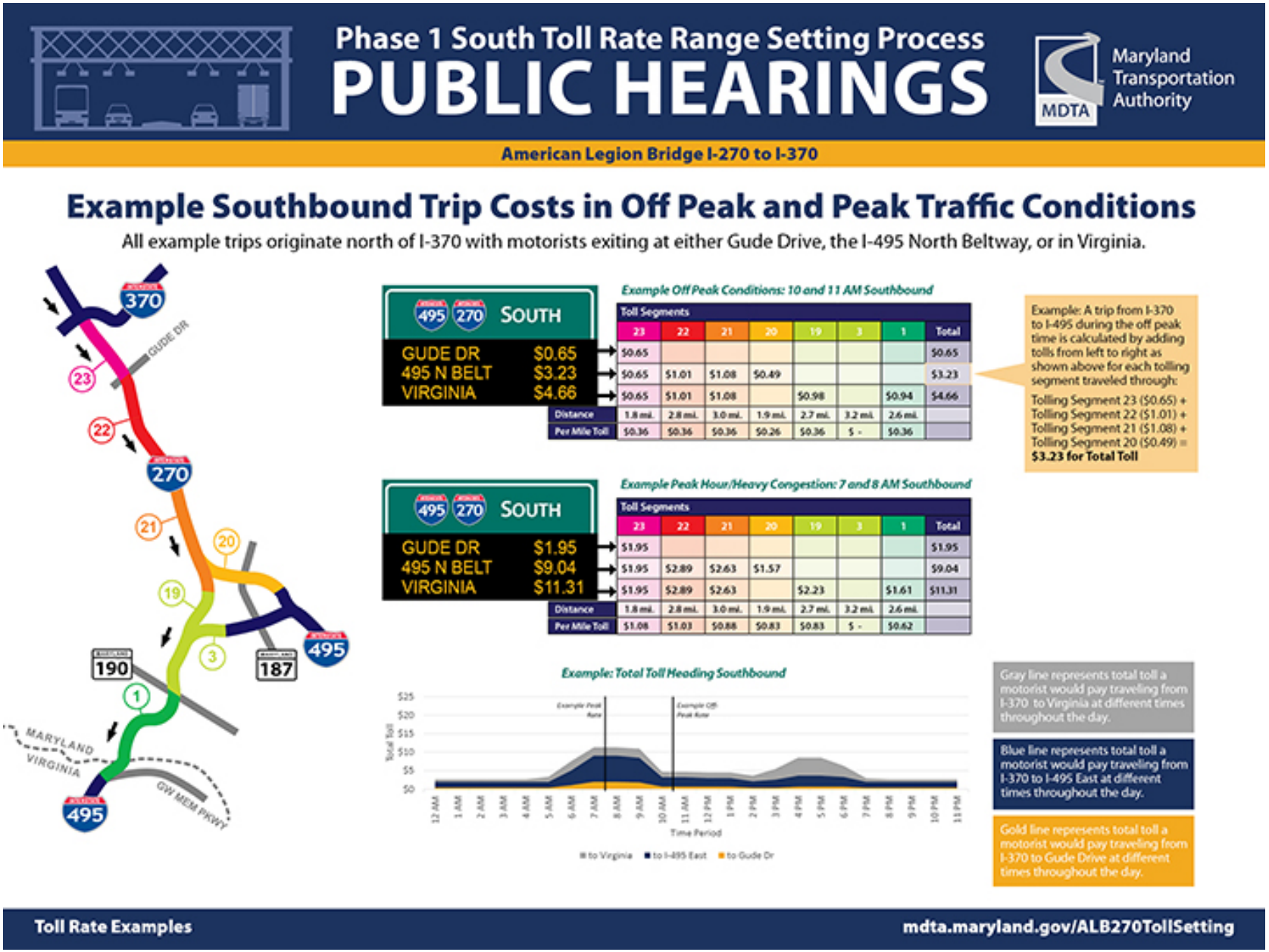
What is toll escalation?

For the toll rates to effectively manage demand and ensure reliability for users of the HOT lanes into the future, the maximum per mile rates, soft rate caps, and unregistered video surcharge will escalate annually to account for inflation, population employment, and income growth. The minimum per mile rates and the minimum tolls are both subject to escalation for inflation only.

- The escalation factors account for and keep pace with the following:
  - Inflation: causes the value of money to decrease over time.
  - Growth in demand: for use of the HOT lanes over time.
- The escalation factors are set based on the following:
  - Inflation: Washington Metro regional consumer price index - all urban consumers (CPI -U)* values that consider the relative cost of goods and services.
  - Growth in demand: captures changes in population, employment, and incomes above inflation.
    - 1.1% per annum population and employment real growth rate.
    - 1.0% per annum per capita personal income real growth rate.

*Designated by the United States Bureau of Labor Statistics under the code CUURS35ASA0.


Phase 1 South Toll Rate Range Setting Process
PUBLIC HEARINGS
Maryland Transportation Authority
American Legion Bridge I-270 to I-370
Example Northbound Trip Costs in Off Peak and Peak Traffic Conditions
All example trips originate in Virginia, just south of the American Legion Bridge, with motorists exiting at either MD 190, MD 187 or I-370.
370
GUDE DR
23
22
270
21
20
19
3
1
190
187
495
MARYLAND
VIRGINIA
GW MEM PKWY
Example Off Peak Conditions: 10 and 11 AM Northbound
495 270 NORTH
MD 190 $0.94
MD 187 $2.10
I-370 $3.07
Toll Segments
1 3 19 20 21 22 23 Total
$0.94
$0.94 $1.16 $2.10
$0.94 $0.56 $0.62 $0.58 $0.37 $3.07
Distance 2.6 mi. 3.2 mi. 2.7 mi. 1.9 mi. 3.0 mi. 2.8 mi. 1.8 mi.
Per Mile Toll $0.36 $0.36 $0.21 $ - $0.21 $0.21 $0.21
Example: A trip from VA to MD 187 during an off-peak time is calculated by adding tolls from left to right as shown below for each tolling segment traveled through:
Tolling Segment 1 ($0.94) + Tolling Segment 3 ($1.16) = $2.10 for Total Toll
Example Peak Hour/Heavy Congestion: 6PM Northbound
495 270 NORTH
MD 190 $5.23
MD 187 $10.03
I-370 $18.60
Toll Segments
1 3 19 20 21 22 23 Total
$5.23
$5.23 $4.80 $10.03
$5.23 $3.76 $3.72 $3.47 $2.42 $18.60
Distance 2.6 mi. 3.2 mi. 2.7 mi. 1.9 mi. 3.0 mi. 2.8 mi. 1.8 mi.
Per Mile Toll $2.01 $1.50 $1.39 $ - $1.24 $1.24 $1.34
Example: Total Toll Heading Northbound
Total Toll
$25 $20 $15 $10 $5 $0
12 AM 1 AM 2 AM 3 AM 4 AM 5 AM 6 AM 7 AM 8 AM 9 AM 10 AM 11 AM 12 PM 1 PM 2 PM 3 PM 4 PM 5 PM 6 PM 7 PM 8 PM 9 PM 10 PM 11 PM
Time Period
to I-370 to MD 187 to MD 190
Gold line represents total toll a motorist would pay traveling from Virginia to MD 190 at different times throughout the day.
Blue line represents total toll a motorist would pay traveling from Virginia to MD 187 at different times throughout the day.
Gray line represents total toll a motorist would pay traveling from Virginia to I-370 at different times throughout the day.
Toll Rate Examples
mdta.maryland.gov/ALB270TollSetting


Phase 1 South Toll Rate Range Setting Process
PUBLIC HEARINGS
Maryland Transportation Authority
MDTA
American Legion Bridge I-270 to I-370
Example Southbound Trip Costs in Off Peak and Peak Traffic Conditions
All example trips originate north of I-370 with motorists exiting at either Gude Drive, the I-495 North Beltway, or in Virginia.
370
GUDE DR
23
22
270
21
20
19
3
190
187
495
1
MARYLAND
VIRGINIA
GW MEM PKWY
495
270
SOUTH
GUDE DR $0.65
495 N BELT $3.23
VIRGINIA $4.66
Example Off Peak Conditions: 10 and 11 AM Southbound
Toll Segments
23 22 21 20 19 3 1 Total
$0.65
$0.65 $1.01 $1.08 $0.49 $3.23
$0.65 $1.01 $1.08 $0.98 $0.94 $4.66
Distance 1.8 mi. 2.8 mi. 3.0 mi. 1.9 mi. 2.7 mi. 3.2 mi. 2.6 mi.
Per Mile Toll $0.36 $0.36 $0.36 $0.26 $0.36 $ - $0.36
Example: A trip from I-370 to I-495 during the off peak time is calculated by adding tolls from left to right as shown above for each tolling segment traveled through:
Tolling Segment 23 ($0.65) +
Tolling Segment 22 ($1.01) +
Tolling Segment 21 ($1.08) +
Tolling Segment 20 ($0.49) =
$3.23 for Total Toll
Example Peak Hour/Heavy Congestion: 7 and 8 AM Southbound
GUDE DR $1.95
495 N BELT $9.04
VIRGINIA $11.31
$1.95
$1.95 $2.89 $2.63 $1.57 $9.04
$1.95 $2.89 $2.63 $2.23 $1.61 $11.31
Distance 1.8 mi. 2.8 mi. 3.0 mi. 1.9 mi. 2.7 mi. 3.2 mi. 2.6 mi.
Per Mile Toll $1.08 $1.03 $0.88 $0.83 $0.83 $ - $0.62
Example: Total Toll Heading Southbound
Total Toll
$25
$20
$15
$10
$5
$0
Example Peak Rate
Example Off-Peak Rate
12 AM 1 AM 2 AM 3 AM 4 AM 5 AM 6 AM 7 AM 8 AM 9 AM 10 AM 11 AM 12 PM 1 PM 2 PM 3 PM 4 PM 5 PM 6 PM 7 PM 8 PM 9 PM 10 PM 11 PM
Time Period
to Virginia
to I-495 East
to Gude Dr
Gray line represents total toll a motorist would pay traveling from I-370 to Virginia at different times throughout the day.
Blue line represents total toll a motorist would pay traveling from I-370 to I-495 East at different times throughout the day.
Gold line represents total toll a motorist would pay traveling from I-370 to Gude Drive at different times throughout the day.
Toll Rate Examples
mdta.maryland.gov/ALB270TollSetting

Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

American Legion Bridge I-270 to I-370

Anticipated Customer Experiences

In Maryland, Phase 1 South ALB I-270 to I-370:

- Most common trip is 6 miles between GW Parkway and MD 187
- Total distance between GW Parkway and I-370 is about 12 miles
- Average trip length is 7 miles
- Weekday average tolls are $4.42 Northbound per trip, $3.44 Southbound per trip (2-axle transponder, 2021 model year in 2021 dollars)

In Virginia:

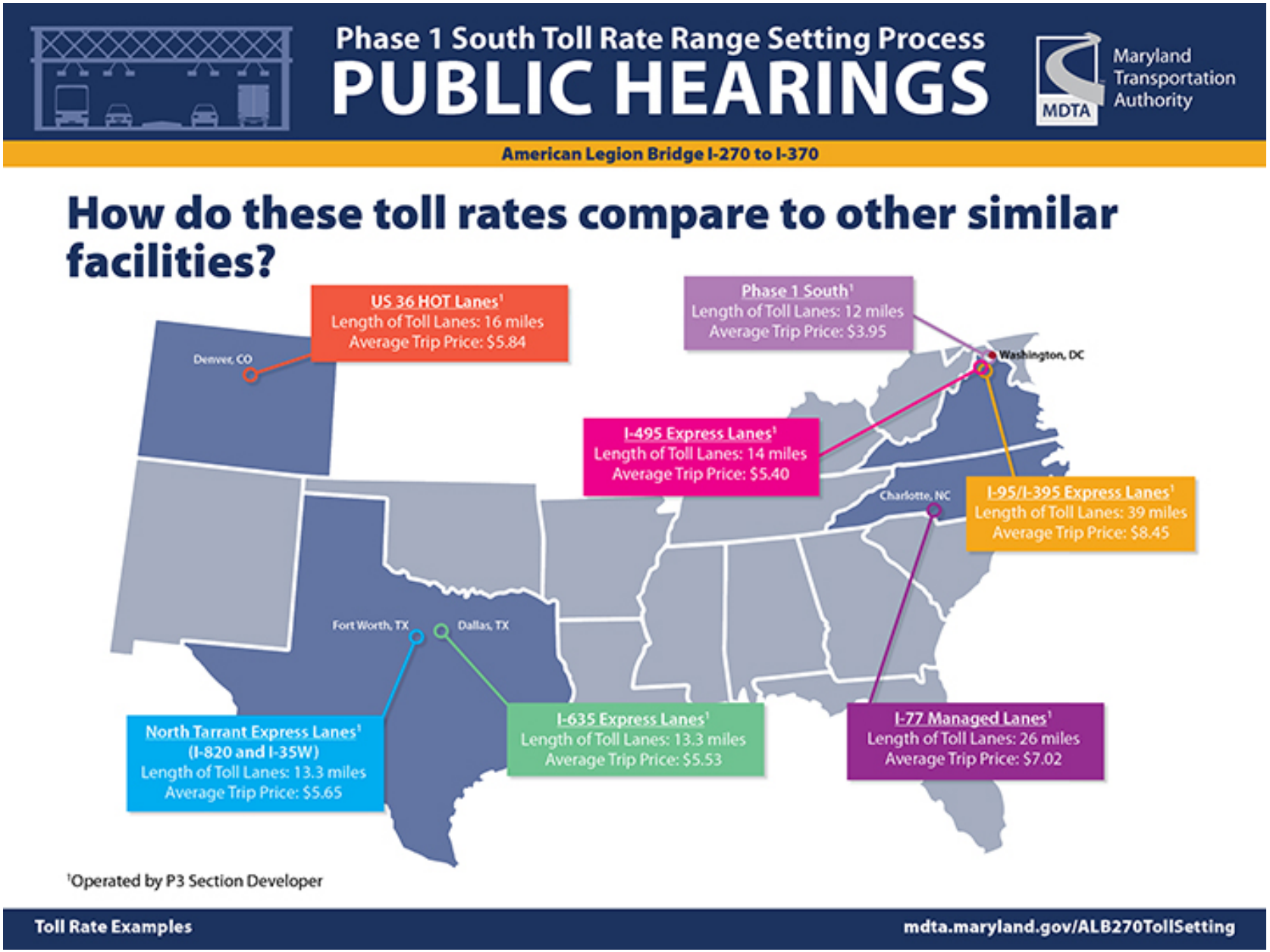
- Average tolls for Virginia's managed lanes on I-495 and I-95 are $5.40 and $8.45 per trip, respectively
- On I-495, 87% of trips were less than $12 and 85% of customers spend less than $20 a month
- On the Virginia I-95 Express Lanes, 74% of customers spend less than $20 a month

Direction	5 AM	6 AM	7 & 8 AM	9 AM	10 AM & 11 AM	12 PM & 1 PM	2 PM	3 PM	4 & 5 PM	6 PM	7 PM	8 PM	12 PM to 4 AM	Daily
Average Toll Paid Per Mile (2021$)														
Northbound	$0.21	$0.51	$0.60	$0.45	$0.23	$0.31	$0.53	$0.70	$1.33	$1.31	$0.49	$0.21	$0.21	$0.66
Southbound	$0.24	$0.52	$0.78	$0.77	$0.33	$0.31	$0.29	$0.45	$0.69	$0.51	$0.21	$0.21	$0.21	$0.50
Total	$0.24	$0.52	$0.72	$0.64	$0.28	$0.31	$0.41	$0.60	$1.08	$1.01	$0.41	$0.21	$0.21	$0.58
Average Toll Paid (2021$)														
Northbound	$1.29	$3.43	$3.51	$2.62	$1.57	$2.09	$3.51	$4.66	$9.41	$9.30	$3.47	$1.25	$0.44	$4.42
Southbound	$2.13	$3.95	$5.36	$5.20	$2.41	$2.11	$1.77	$2.77	$4.53	$3.35	$1.50	$0.94	$0.74	$3.44
Total	$1.97	$3.81	$4.62	$4.06	$2.00	$2.10	$2.66	$3.84	$7.38	$6.99	$2.86	$1.20	$0.62	$3.95
Average Trip Length (miles)														
Northbound	6.25	6.73	5.81	5.80	6.87	6.82	6.61	6.63	7.05	7.08	7.02	6.04	2.15	6.66
Southbound	8.76	7.62	6.87	6.79	7.33	6.84	6.19	6.20	6.57	6.63	7.09	4.54	3.60	6.89
Total	8.30	7.39	6.45	6.35	7.11	6.83	6.41	6.44	6.85	6.91	7.04	5.81	3.00	6.77

Toll rates are for illustrative purposes only and are based on 2021 project traffic and revenue models. Actual toll rates will be set in the future by the Phase 1 South Section Developer within established toll rate ranges and are subject to change based on tolling segment and congestion level experienced within each tolling segment. Toll rates used in this illustration assume a 2-axle vehicle with E-ZPass. Free passage discount will be granted along the Phase 1 South HOT lanes for HOV 3+, buses and motorcycles.

Toll Rate Examples

mdta.maryland.gov/ALB270TollSetting


Phase 1 South Toll Rate Range Setting Process
PUBLIC HEARINGS
Maryland Transportation Authority
MDTA
American Legion Bridge I-270 to I-370
How do these toll rates compare to other similar facilities?
US 36 HOT Lanes[1]
Length of Toll Lanes: 16 miles
Average Trip Price: $5.84
Phase 1 South[1]
Length of Toll Lanes: 12 miles
Average Trip Price: $3.95
Denver, CO
Washington, DC
I-495 Express Lanes[1]
Length of Toll Lanes: 14 miles
Average Trip Price: $5.40
Charlotte, NC
I-95/I-395 Express Lanes[1]
Length of Toll Lanes: 39 miles
Average Trip Price: $8.45
Fort Worth, TX
Dallas, TX
North Tarrant Express Lanes[1]
(I-820 and I-35W)
Length of Toll Lanes: 13.3 miles
Average Trip Price: $5.65
I-635 Express Lanes[1]
Length of Toll Lanes: 13.3 miles
Average Trip Price: $5.53
I-77 Managed Lanes[1]
Length of Toll Lanes: 26 miles
Average Trip Price: $7.02
[1]Operated by P3 Section Developer
Toll Rate Examples
mdta.maryland.gov/ALB270TollSetting

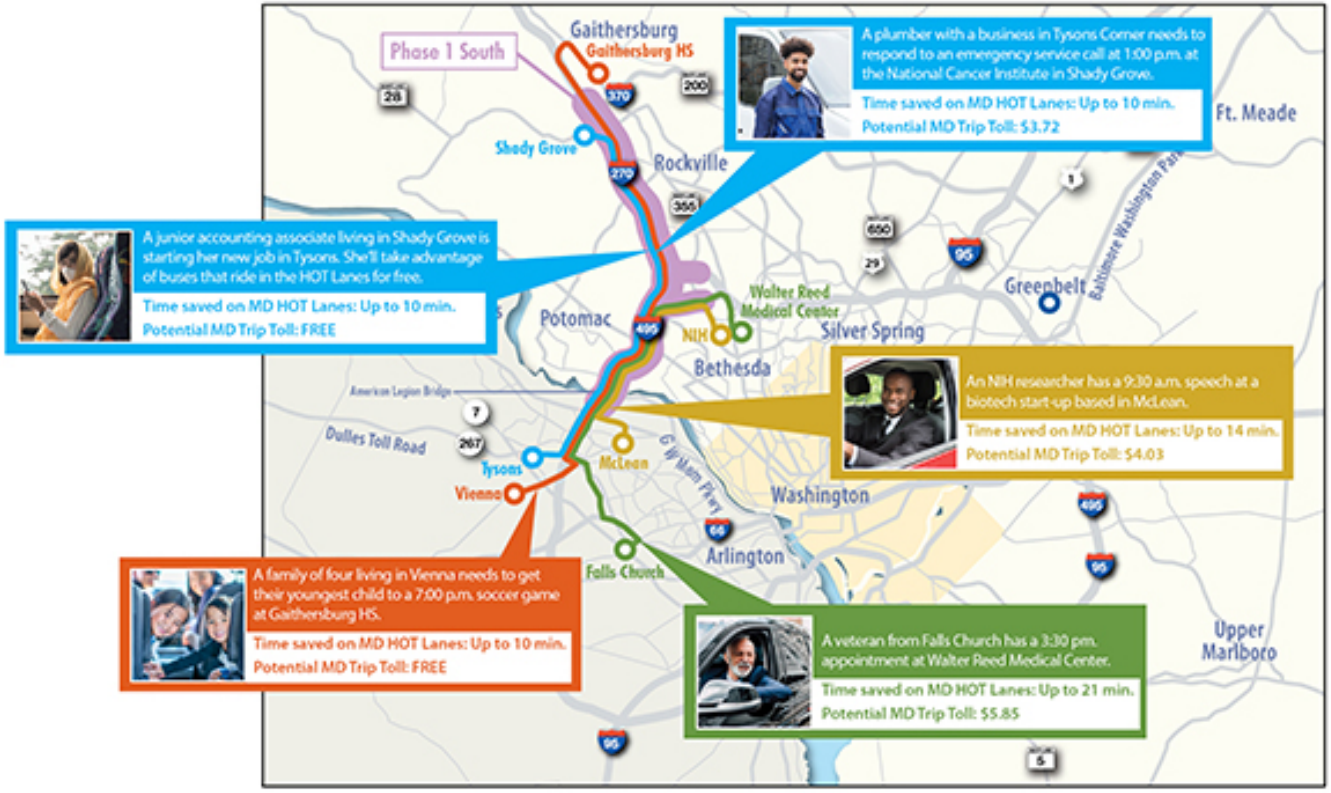
Phase 1 South Toll Rate Range Setting Process

PUBLIC HEARINGS

Maryland Transportation Authority

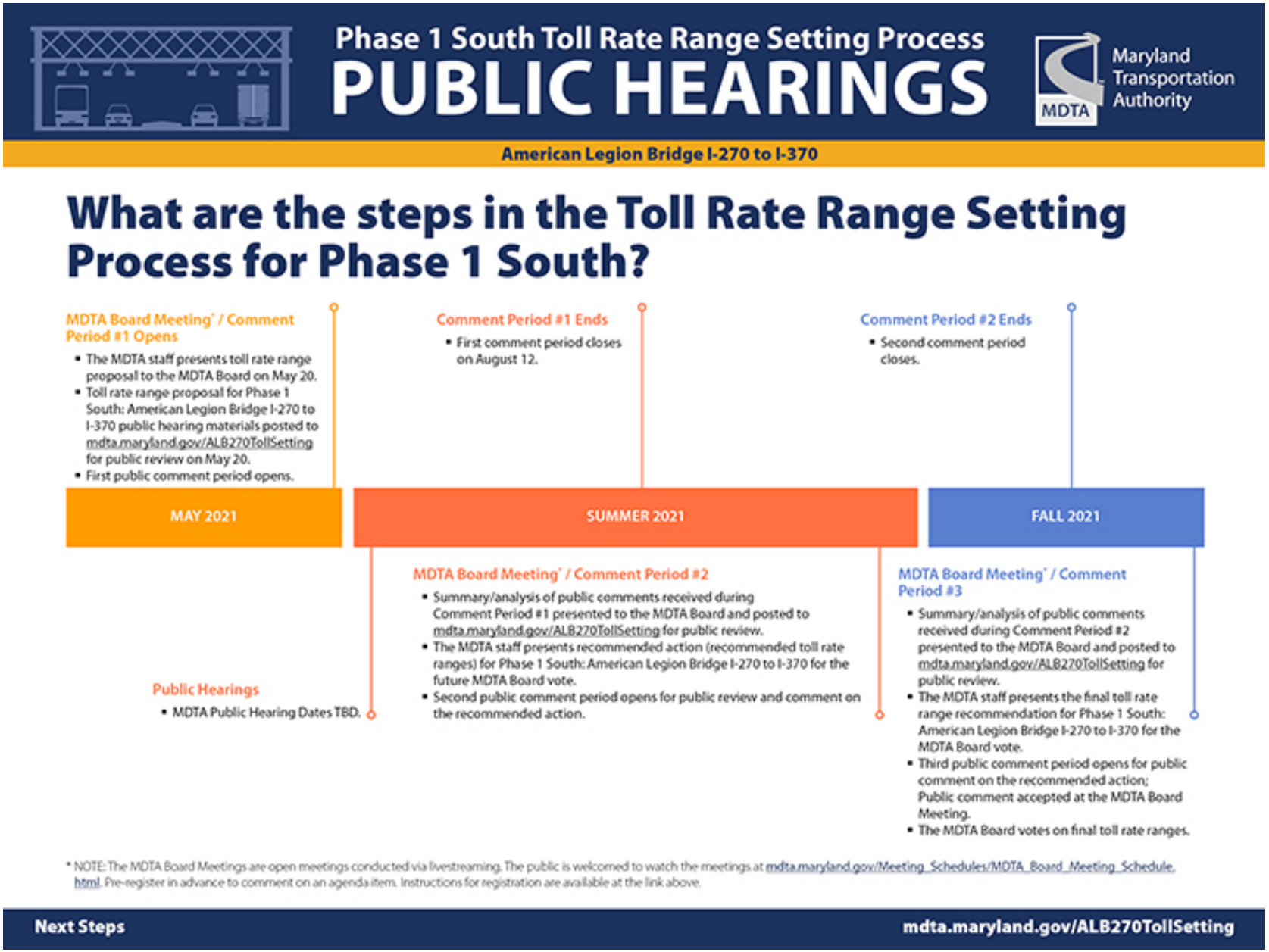
American Legion Bridge I-270 to I-370

Potential HOT lane trips along Phase 1 South



Toll rates and time savings are for illustrative purposes only and are based on 2021 project traffic and revenue models. Actual toll rates will be set in the future by the Phase 1 South Section Developer within established toll rate ranges and are subject to change based on tolling segment and congestion level experienced within each tolling segment. Toll rates used in this illustration assume a 2-axle vehicle with E-ZPass. Free passage discount will be granted along the Phase 1 South HOT lanes for HOV 3+, buses and motorcycles.

Toll Rate Examples mdta.maryland.gov/ALB270TollSetting


Phase 1 South Toll Rate Range Setting Process
PUBLIC HEARINGS
Maryland Transportation Authority
MDTA
American Legion Bridge I-270 to I-370
What are the steps in the Toll Rate Range Setting Process for Phase 1 South?
MDTA Board Meeting* / Comment Period #1 Opens
• The MDTA staff presents toll rate range proposal to the MDTA Board on May 20.
• Toll rate range proposal for Phase 1 South: American Legion Bridge I-270 to I-370 public hearing materials posted to mdta.maryland.gov/ALB270TollSetting for public review on May 20.
• First public comment period opens.
Comment Period #1 Ends
• First comment period closes on August 12.
Comment Period #2 Ends
• Second comment period closes.
MAY 2021
SUMMER 2021
FALL 2021
Public Hearings
• MDTA Public Hearing Dates TBD.
MDTA Board Meeting* / Comment Period #2
• Summary/analysis of public comments received during Comment Period #1 presented to the MDTA Board and posted to mdta.maryland.gov/ALB270TollSetting for public review.
• The MDTA staff presents recommended action (recommended toll rate ranges) for Phase 1 South: American Legion Bridge I-270 to I-370 for the future MDTA Board vote.
• Second public comment period opens for public review and comment on the recommended action.
MDTA Board Meeting* / Comment Period #3
• Summary/analysis of public comments received during Comment Period #2 presented to the MDTA Board and posted to mdta.maryland.gov/ALB270TollSetting for public review.
• The MDTA staff presents the final toll rate range recommendation for Phase 1 South: American Legion Bridge I-270 to I-370 for the MDTA Board vote.
• Third public comment period opens for public comment on the recommended action; Public comment accepted at the MDTA Board Meeting.
• The MDTA Board votes on final toll rate ranges.
* NOTE: The MDTA Board Meetings are open meetings conducted via livestreaming. The public is welcomed to watch the meetings at mdta.maryland.gov/Meeting_Schedules/MDTA_Board_Meeting_Schedule.html. Pre-register in advance to comment on an agenda item. Instructions for registration are available at the link above.
Next Steps
mdta.maryland.gov/ALB270TollSetting

Title VI Questionnaire

What is Title VI?

- Title VI, 42 U.S.C.,* Section 2000d et seq., was enacted as part of the Civil Rights Act of 1964. Title VI-related statutes and regulations provide that no person shall on the ground of race, color, national origin, sex, English proficiency, or disabilities be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity.

Should you need LEP assistance or if you believe the MDTA is not meeting the expectations of Title VI, you may direct questions, concerns, or file a complaint with:

Title VI Officer
Division of Civil Rights and Fair Practices
Maryland Transportation Authority

2310 Broening Highway
Baltimore, MD 21224
410-537-6720

mdtaeeo@mdta.maryland.gov

* United States Code

Why is Title VI Important?

- Title VI ensures that public services, including transportation, are provided in an equitable and nondiscriminatory manner.
- Title VI provides opportunities for public participation in decision-making without regard to race, color, or national origin, including populations with Limited English Proficiency (LEP).

Please Fill Out a Survey by Clicking on the Link Below.
The MDTA strives to involve all groups relevant to its Study in its public involvement activities. Please fill out a Demographic Information Survey to assist the MDTA in planning outreach to communities during the course of the toll rate range setting process for Phase 1 South.

Complete the
MDOT Title VI questionnaire

mdta.maryland.gov/ALB270TollSetting

Thank you for your participation!

The MDTA is committed to keeping the public informed about the Phase 1 South Toll Rate Range Setting Process.

Stay up to date by visiting mdta.maryland.gov/ALB270TollSetting.

mdta.maryland.gov/ALB270TollSetting

B. Attachment 2: Toll Rate Range Setting Process Virtual Boards Script (accompanies the boards)

Board #	Title	**Script**
1	Welcome! Public Hearing Virtual Information Room	• The Maryland Transportation Authority, or the M-D-T-A, welcomes you to the public hearing virtual information room for the Phase 1 South: American Legion Bridge I-270 to I-370 Toll Rate Range Setting Process. • This public hearing virtual information room provides you with the same information as traditional in-person hearings. In response to the current COVID-19 Pandemic, we are practicing social distancing by sharing the public hearing materials virtually.
2	Purpose of the public hearings for the Phase 1 South Toll Rate Range Setting Process	• During this public hearing, you will be provided an opportunity to comment on the Toll Rate Range proposal for Phase 1 South: American Legion Bridge I-270 to I-370. • The public comment period starts on May 20, 2021 and closes on August 12, 2021 at 5 o'clock PM. • The testimony and written comments received during the public comment period will be part of the official record reviewed by the M-D-T-A Board and M-D-T-A Executive Director. • This virtual information room contains public hearing materials with information about: ▪ the toll rate range setting process for Phase 1 South, ▪ the toll rate range proposal for Phase 1 South, ▪ how to submit written comments, and ▪ how to provide voicemail testimony. • Hearing materials should be reviewed online prior to attending a hearing.
3	When are the public hearings and how do I comment on the tolling proposal?	• The MDTA is planning virtual and in-person hearings to seek public testimony on the proposed toll rate ranges for Phase 1 South. • Registration to provide testimony at a public hearing will open once the public hearing dates are announced. • There will be no formal presentation during the public hearings, and no responses to questions will be given. • The public will be able to listen live to the hearings via telephone or by watching a livestream online. • Dates and details will be provided in future announcements for public hearings to be scheduled during the comment period. • Beginning May 20, 2021, public comment is being accepted, and all public hearing materials are available in the Virtual Information Room on the project webpage at mdta.maryland.gov/ALB270TollSetting.

		• Written comments and call-in testimony through voicemail will be accepted for the official record through Thursday, August 12, 2021 at 5 PM. • Written comments may be submitted by completing and submitting an electronic comment form on the project webpage, by downloading and emailing a completed comment form to ALB270TollSetting@mdta.maryland.gov, or by printing and mailing a completed comment form to the M-D-T-A. • Call-in testimony may be provided by calling 855-701-1977 and leaving a single voicemail that is limited to three minutes. • All comments received, whether at the hearing or through other methods, will be given equal consideration. • If you are unable to access the hearing materials online, or if you require special accommodations under the Americans with Disabilities Act or require language translation services - free of charge - please contact the MDTA's Title Six Officer at mdtaeeo@mdta.maryland.gov or at 410-537-6720.
4	What is Phase 1 South of the Phase 1: American Legion Bridge I-270 to I-70 Relief Plan?	• Let's get started with an explanation of what we mean when we say, "Phase 1 South." • First, Phase 1 South is part of a larger, historic effort to reduce congestion for millions of travelers in the National Capital Region known as "Phase 1: American Legion Bridge I-270 to I-70 Relief Plan". • The map shows the limits of Phase 1 in blue, which extend from just south of the American Legion Bridge up to I-270 in Montgomery County and north along I-270 up to I-70 in Frederick County. • The purple section shown within Phase 1 is "Phase 1 South: American Legion Bridge I-270 to I-370," and is entirely within Montgomery County. • This Toll Rate Range Setting Process is focused on the American Legion Bridge up to I-270, and north on I-270 to I-370.
5	What is being tolled within Phase 1 South?	• Phase 1 South: American Legion Bridge I-270 to I-370 is part of the Managed Lanes Study, which is following the National Environmental Policy Act, or NEPA, process. • The Managed Lanes Study is being developed on an independent track from Phase 1. • The Maryland Department of Transportation State Highway Administration, known as M-DOT S-H-A, has identified Alternative 9: Phase 1 South as the Recommended Preferred Alternative for the Managed Lanes Study. • Alternative 9: Phase 1 South improvements are shown in the two typical sections on this board. • The top typical section shows replacement of the 60-year-old American Legion Bridge, which includes the addition of two High-Occupancy Toll, or HOT, lanes in each direction across the New

		Bridge to I-270. A third HOT lane will be provided in both directions on the New Bridge to accommodate vehicles exiting and entering the HOT lanes to and from the George Washington Parkway, south of the bridge. This typical section also shows a possible location for a pedestrian and bicycle shared-use path on the Bridge. • The bottom typical section shows improvements along I-270 to I-370, where one existing high-occupancy vehicle, or H-O-V, lane will be converted to a HOT lane and one HOT lane will be added in each direction. The new HOT lanes would be separated and tolled to maintain traffic speeds or throughput. • The existing general-purpose lanes would remain free within the entire limits of Phase 1 South. • The Managed Lanes Study NEPA process will result in a Final Environmental Impact Statement, called an F-E-I-S, and Record of Decision, known as a ROD. • Tolls will not be implemented within Phase 1 South if the F-E-I-S and ROD do not include a managed lanes Build Alternative. • To learn more about the Managed Lanes Study and the M-DOT S-H-A Recommended Preferred Alternative 9: Phase 1 South, please visit 495-270-p3.com/.
6	How do HOT lanes benefit everyone?	• So you may be wondering what HOT lanes are and what benefits they provide over general purpose lanes. • HOT lanes are dedicated managed lanes within the highway right of way that single-occupancy vehicle, or S-O-V, motorists may use by paying a variably priced toll. • HOT lanes are designed to operate at 45 miles per hour or higher. Average speeds in the general-purpose lanes also improve because drivers choosing to use the HOT lanes reduce the vehicles in the general-purpose lanes. • These improvements in speed and travel time encourage motorists who have been using local roadways to switch back to the interstate because it will be operating much better; thus, reducing cut-through traffic on the local roads. • Free passage will be granted for H-O-V 3 Plus, buses, and motorcycles. • By granting free passage to H-O-V 3 Plus, buses and motorcycles, these new lanes will: give people a more reliable trip, provide more equitable opportunities with the option to travel free, reduce dependence on single-occupancy vehicles) and create new opportunities for ride sharing supporting regional planning efforts to expand HOT/HOV usage. • The HOT lanes are compatible with the Express lanes in Virginia, which is important because they will be connecting directly to them. • The HOT lanes allow for a more reliable trip for the buses operating at increased speeds in free-flow traffic.

		• The HOT lanes provide better connections to existing transit service, thus bringing transit to offices, shops, and entertainment centers more quickly. • And lastly, the HOT lanes connect to existing and future transit service which will help provide transportation connections to underserved communities and businesses.
7	How are the MDTA, MDOT SHA and Developer partnering in Phase 1 South: American Legion Bridge I-270 to I-370?	• The next four boards discuss the partnership and roles and responsibilities of the state agencies and the developer involved in Phase 1 South. • The M-D-T-A is the only State entity with the authority to set, revise and fix tolls and is responsible for setting toll rate ranges and conducting toll collection operations for Phase 1 South. • M-DOT S-H-A is the State entity responsible for developing the Phase 1 South: American Legion Bridge I-270 to I-370 related to program development, solicitations and long-term program management. • The Phase I Developer will conduct predevelopment work with the M-D-T-A and M-DOT S-H-A to advance the preliminary design to further avoid and minimize impacts. • The Phase 1 South Section Developer will design and implement the toll system.
8	Responsibilities of MDTA, MDOT SHA and Developer	• The M-D-TA will be involved in selecting the Phase 1 South Section Developer, will establish minimum and maximum toll rate ranges, set soft rate caps. They will also be responsible for maintaining tolling customer accounts, collecting tolls providing customer service, when needed, and administering the transfer of revenue to the Phase 1 Section Developer. • M-DOT S-H-A will be responsible for managing the agreements made with the public-private partnerships - also known as P3 - and maintaining stakeholder engagement and communications. This includes commitments such as the Bi-State Agreement with Virginia for improvements to the New American Legion Bridge, regional transit benefits, agreements with utilities and other third parties, and maintenance of the new general-purpose lanes. M-DOT S-H-A will also coordinate all property purchases and obtain government approvals on all NEPA documents, such as the F-E-I-S and the ROD, should a build alternative be chosen. • The Phase 1 South Section Developer will finance, construct, operate, and maintain the HOT lanes, toll gantries, and electronic signage. They will also set the variably priced tolls that must be within the toll rate ranges to be established by the M-D-T-A Board.
9	Responsibility of the MDTA Board	• After considering all comments and testimony received during the toll rate range setting process, the M-D-T-A Board will vote on final toll rate ranges to be established for Phase 1 South.

		• The M-D-T-A Board is governed by eight citizen Board Members appointed by the Governor, and confirmed by the Maryland Senate. The M-D-T-A Board is chaired by the Maryland Secretary of Transportation, Gregory Slater. • James F. Ports, Jr. is the Executive Director of M-D-T-A and he oversees daily operations. Although he is not a voting Member of the M-D-T-A Board; he will have a role in the toll rate range setting process.
10	What is the MDTA Board voting on?	• Following the hearings and public comment periods, the M-D-T-A Board will consider all comments received and then vote on the final M-D-T-A staff recommendation for the proposed toll rate ranges for Phase 1 South: American Legion Bridge I-270 to I-370, which will include the minimum and maximum toll rate ranges, the process for toll escalation, and toll discounts for certain types of vehicles. • By law, the M-D-T-A Executive Director may set or adjust the soft rate cap, operational metrics, or toll zones consistent with the toll rate ranges that are established by the M-D-T-A Board. • Before the M-D-T-A Board Members cast their votes, they want to hear from you. Therefore, the M-D-T-A is asking the public to comment on all elements of the toll rate range proposal for Phase 1 South.
11	How are the proposed toll rate ranges for Phase 1 South different than tolls on the existing MDTA toll facilities?	• The toll rate ranges for Phase 1 South will differ from toll operations on existing M-D-T-A toll facilities, which have either a fixed price toll or a variably priced toll that uses time of day pricing, and focuses on revenue generation to allow M-D-T-A to construct, manage, operate and improve the State's toll facilities. • With MDTA's existing fixed price facilities, vehicles are tolled at a set rate regardless of the time of day or congestion level. • With M-D-T-A's existing variably priced facilities, vehicles are tolled at a set rate that can vary based on the time of day. This is used with the Intercounty Connector and the I-95 Express Toll Lanes. • Phase 1 South would be a variably priced facility that uses dynamic pricing, which is new to Maryland, where tolls vary by tolling segment and congestion level. • Dynamic pricing focuses on relieving congestion by maintaining reliability and traffic speeds of 45 miles per hour or greater in the HOT lanes. • Generally speaking, with dynamic tolling, toll rates are set within established toll rate ranges to maintain free-flowing traffic on the HOT lanes and use pricing factors to influence the traffic flow – when lanes become more congested, the toll increases, and when lanes become less congested, the toll decreases. • The M-D-T-A's existing toll facilities will not be impacted by this Toll Rate Range Setting Process.

12	How will dynamic pricing work on the HOT lanes?	• Let's take a look at how dynamic pricing will work on the Phase 1 South HOT lanes. • Toll rates will adjust as frequently as every 5 minutes, if needed, to maintain a free-flowing level of traffic – that is, 45 miles per hour or greater. • Toll rates will generally increase when the HOT lanes are relatively full and traffic slows, and then decrease when the HOT lanes are less full. • Tolls will be collected at highway speeds, using overhead gantries, with no toll plazas or toll booths – this is known as cashless tolling. • Current toll rates for common destinations will be displayed on electronic roadway signs so drivers will know their toll prior to entering the HOT lanes. • Please note, tolling gantry locations, as well as actual toll rates, will be identified by the Phase 1 South Section Developer in the future. Gantry locations shown in the public hearing informational materials are theoretical and for illustrative purposes only. Toll rates for each tolling segment will be set by the Developer within the M-D-T-A Board-approved toll rate ranges.
13	How will your toll be determined for a trip?	• Here are two examples of how tolls would be calculated for a trip along the Phase 1 South HOT lanes. • Please note, the toll rates used in the graphic are not actual; the example toll rates are for illustration purposes only. Once toll rate ranges are established by the M-D-T-A Board, the Developer will set actual toll rates within the approved toll rate ranges. • Now, let's proceed with the examples. • This is a graphic depicting a highway with four, free general purpose lanes and two tolled HOT lanes. There are four Interchange Crossroads labeled A, B, C and D. The HOT lanes between Interchange Cross Roads are called tolling segments - there are three in this example, and overhead tolling gantries are located within each of the segments. The HOT lanes may be accessed and exited from any of the four Interchange Cross Roads, A, B, C, or D. Before entering the HOT lanes, a digital road sign will show the anticipated total toll to the common destinations. In this example, a digital road sign is shown at Cross Road A telling you how much it will cost to get from Cross Road A to Cross Roads C and D. • To calculate a total trip cost, multiply the number of miles traveled within a tolling segment by the toll rate per mile for that given tolling segment. A trip may pass through multiple tolling segments, and the toll rate per mile may vary within each tolling segment based on traffic conditions.

		• In the first example, you are traveling from Cross Road A to Cross Road C, which involves passing through two tolling segments. The vehicle here is tolled at a rate of $0.40 per mile for two miles in the first tolling segment and tolled at a rate of $0.60 per mile for five miles in the second tolling segment, for a total trip cost of $3.80. • In the second example, you would pay a total trip cost of $4.70. • As a reminder, there will always be an option to travel in the existing general purpose lanes for free.
14	How will tolls be collected?	• Three tolling collection methods will be used by the M-D-T-A on the HOT lanes. As motorists move beneath overhead gantries, tolls will be collected electronically via an *E-ZPass*® transponder, Pay-By-Plate (also called registered video), or through Video Tolling (also called unregistered video). • When using an *E-ZPass* account, customers will pay the lowest tolls on every trip. *E-ZPass* transponders are free with no monthly fee for Maryland residents. • Customers without an *E-ZPass* may register their license plate and a credit card for payment in the Pay-By-Plate or registered video program. When registered video customers drive under the gantries, a video image of the vehicle's license plate will be taken and their credit card will be charged at a toll rate that is 25 percent higher than the base rate paid by *E-ZPass* customers. No prepaid balance is required for Pay-By-Plate. • To pay by Video Tolling or unregistered video, customers that do not have an *E-ZPass* nor are registered for Pay-By-Plate will have an image of their vehicle's license plate taken and an invoice called "a Notice of Toll Due" will be mailed to the registered vehicle owner. The toll rate for Video Tolling is 50% higher than the base rate paid by E-ZPass customers.

15	Toll rate range proposal for Phase 1 South: American Legion Bridge I-270 to I-370	• Now we are going to explain the details of the toll rate range proposal for Phase 1 South, which applies only to travel in the HOT lanes.
		• There are three main parts of the proposal:
		  ○ first – there are the minimum and maximum toll rate ranges with soft rate caps within each range;
		  ○ second – there are annual escalation factors to ensure the toll rate ranges, soft rate caps and unregistered video surcharge rates, adequately cover inflation and demand growth over the next 50 years;
		  ○ and third – there are discounts, which under this tolling proposal equates to free passage for high-occupancy vehicles with at least 3 passengers, called H-O-V 3 plus, for buses, and for motorcycles.
		• As a reminder, the existing free general-purpose lanes will remain free for everyone.

		• So, in summary, the difference between the minimum and maximum toll rates creates the proposed toll rate ranges, which vary by vehicle classification and payment type. Actual toll rates - to be determined dynamically by the Developer - will be constrained by soft rate caps within each toll rate range and can only be exceeded in specific circumstances. • Next, we will review definitions of the toll rate types.

16	What does the toll rate range proposal include?	• First, we have the minimum toll rate, which is the lowest toll rate per mile that may be charged within any tolling segment of the HOT lanes ***or*** the lowest total toll a customer will pay regardless of how far they travel.
		• The minimum toll rate ensures short trips on the HOT lanes are charged a flat toll to cover toll collection costs.
		• Next, we have the soft rate cap - this is the per-mile toll rate that can only be exceeded when at least one of the following thresholds are met within a given tolling segment during the preceding 5-minute period.
		  ○ The first is when traffic volume exceeds 1,600 passenger car equivalent vehicles per hour per lane.
		  ○ The second is when the average speed is below 50 miles per hour.
		• The soft rate cap protects customers from price gouging when traffic conditions do not justify higher rates.
		• Lastly, we have the maximum toll rate, which is the highest toll rate per mile that may be charged within any tolling segment along the HOT lanes. This rate may not be exceeded under any circumstances.
		  ○ The toll rate may reach the maximum toll rate in extremely rare circumstances when travel demand is very high within a given tolling segment, such as during a severe crash or extreme weather event.

17	Minimum Toll Rate	• Now let's get into an example of how the minimum toll rate will work. • This board provides two examples of how the minimum toll rate will operate in the HOT lanes. • For these examples, the toll rate is set at its lowest rate in a free-flowing traffic situation with very low congestion. For all vehicle types, the minimum toll per trip is $0.50 for *E-ZPass* payment, $0.63 for Pay-By-Plate, and $0.75 for Video Tolling. The minimum toll rate per mile is $0.20. • In the first example, Vehicle 1, a 2-axle vehicle with *E-ZPass*, enters the HOT lanes at Interchange Cross Road A and travels a total of three miles to their exit at Interchange Cross Road C. During their trip, Vehicle 1 passes through two tolling segments before exiting the HOT lanes and is charged the minimum toll rate of $0.20 per mile for one mile at Toll Gantry

		#1 between Interchange Cross Roads A and B, and is charged the minimum toll rate of $0.20 per mile for two miles at Toll Gantry #2 between Interchange Cross Roads B and C, for a total toll of $0.60. • In the second example scenario, Vehicle 2, which is also a 2-axle vehicle with *E-ZPass*, enters the HOT lanes at Interchange Cross Road A and only travels a total of one mile to their exit at Interchange Cross Road B. During their trip, Vehicle 2 passes through one tolling segment before exiting the HOT lanes and is charged the minimum toll per trip of $0.50 at Toll Gantry #1. The minimum per trip toll was charged because at only one mile traveled, the minimum $0.20 per-mile toll rate would be less than the $0.50 per trip minimum. • As in all examples, the four existing general-purpose lanes remain free for all vehicles.
18	What is the Soft Rate Cap?	• Moving on from the minimum toll rate, let's talk about the soft rate cap, which is a set toll rate amount within an approved toll rate range that may be temporarily exceeded when either vehicle throughput or speed performance metrics are not met for a specific tolling segment. • A predefined soft rate cap "mechanism" is necessary to ensure the developer charges toll rates only up to the soft cap unless warranted by traffic or speeds. • The soft rate cap may be exceeded if the average traffic volume measured in a segment during the preceding five-minute period exceeds 1,600 passenger car equivalent vehicles per hour per lane, OR the average speed in a segment during the preceding five-minute period is below 50 miles per hour. o Note that a speed threshold of 50 miles per hour is used here with the soft rate cap. This is higher than the 45 miles per hour overall minimum speed desired for the HOT lanes. The 5 mile per hour buffer is included here because the speeds are monitored in the previous 5-minute period to make toll rate changes in the next 5-minute period. o Allowing the soft rate cap to be exceeded if traffic levels become high enough is important because if traffic reaches certain levels that are understood to be approaching HOT lane capacity, speeds could decrease quickly even with small increases in traffic. o Allowing the soft cap to be exceeded if speeds become low enough is important to ensure the overall mobility goals of the project are being achieved, even during more unique travel demand situations.

		• The soft rate cap will always be lower than the maximum toll rate and can be exceeded only temporarily in the affected tolling segment to provide customers who choose to pay a toll a faster and more reliable trip. • M-D-T-A is proud to note that although not standard practice in the tolling industry, we are choosing to be one of two states in the U. S. to set a soft rate cap to constrain the toll rate as a protective measure for our customers.
19	How will the Soft Rate Cap work?	• Now that we have explained what the soft rate cap is, let's review how it will work on the HOT lanes. • As mentioned, if the throughput or speed performance metrics are not met, the per-mile toll rates charged for a tolling segment may temporarily exceed the soft rate cap. • If that happens, vehicles would temporarily pay a toll rate for that segment that is greater than the soft rate cap toll amount. • In these instances, the toll rate cap would be multiplied by a demand factor to calculate a new, temporary revised toll rate cap for only the affected segment - not the entire Phase 1 South limits. • The toll rate will gradually return to the soft rate cap after the throughput drops below the 1,600-passenger car equivalent vehicles per hour per lane or average speed is at or above 50 miles per hour. • The revised toll rate cap will be 90% of the prior revised toll rate cap and will continue decreasing every 5 minutes until the revised toll rate cap equals the soft rate cap. • We understand that it may be difficult to follow how the soft rate cap would be applied, with its traffic or speed thresholds and demand factors, so we have prepared a short video for you that runs through two examples. • We now request that you turn your attention to the Soft Rate Cap Informational Video found on the project webpage.
		INSERT SOFT RATE CAP VIDEO HERE
20	How does the Soft Rate Cap Benefit Customers?	• This graphic shows a more specific example of how the soft rate cap could lower toll rates for customers. • The example is for a northbound HOT Lanes segment between River Road on I-495 and Westlake Terrace on the I-270 West Spur for 6 o'clock PM to 6:59 PM. • The y-axis shows the estimated average 2-axle *E-ZPass*® toll rate per mile. The toll rates are rounded to the nearest 10 cents and expressed in 2021 equivalents in 2021 dollars for consistency with the rest of these boards. • The x-axis represents the share of weekdays at different toll rate levels. • As shown in the table, without the soft rate cap, shown in red, about two-thirds of weekdays would have rates above $1.50

		per mile and one-third of weekdays would have rates at or below $1.50 per mile. • With the soft rate cap, shown in blue, about two-thirds of weekdays would have rates at or below $1.50 per mile and one-third of weekdays would have rates above $1.50 per mile. • The frequency of the per mile rate at or below $1.50 doubles with the soft rate cap because the traffic metrics tied to the cap constrain the per mile rate, providing toll rate protection to customers. • Visually this is seen by the blue peak that extends outward. • Without the soft rate cap, the toll rate would rise into the solid red area above the $1.50 soft rate cap.
21	How often will the Soft Rate Cap be Exceeded?	• This table shows the estimated number of non-holiday weekdays, by assumed segments, that the soft rate cap could be reached, but not allowed to increase; or reached and to be exceeded due to traffic conditions. • The red columns indicate the estimated number of weekdays traffic conditions allow the soft rate to be exceeded and the green columns indicate the estimated number of weekdays the per mile rate is limited to $1.50 to protect customers when traffic conditions do not warrant higher tolls. • The soft rate cap is generally reached and/or exceeded between four and seven PM, primarily on the inner loop. The highest occurrences are at or near the American Legion Bridge, which experiences some of the nation's worst congestion. • For example, in the 6 o'clock PM to 6:59 PM column in the third row from the top – from River Road to I-495 (inner loop), East of the I-270 West Spur - it is estimated the soft rate cap would be reached but not allowed to be exceeded on 186 weekdays and the soft rate cap would be exceeded on 34 weekdays.
22	How often will the Soft Rate Cap be Exceeded?	• Here's another way to look at the frequency. • Following the same example from the previous board- from River Road to I-495 (inner loop), East of the I-270 West Spur – it is estimated the soft rate cap would be reached but not allowed to exceed 74% of weekdays and the soft rate cap would be exceeded 14% of weekdays.
23	How does the Maximum Toll Rate Work?	• In addition to the minimum toll rate and the soft rate cap, the proposed toll rate range has a maximum per-mile toll rate, which is the highest rate a vehicle could ever pay per mile, and it cannot be exceeded under any circumstances. • Maximum toll rates are not typically used for HOT lane facilities; however, the maximum toll rate offers added protection to toll customers. • Customers could choose to pay this higher toll to avoid high traffic events such as a severe crash or extreme weather.

		• The maximum toll rate would not be applied to the entire length of the Phase 1 South, but only at the tolling segments that are experiencing unusually high congestion. • The probability of reaching the maximum toll rate within a tolling segment is very small. • The probability of reaching the maximum toll rate is highest on the northbound portion of Phase 1 South just north of the American Legion Bridge.
24	Vehicle Classifications	• The proposed toll rate ranges, and soft rate caps within, vary based on the different vehicle classifications shown here, as well as payment type, which we have already reviewed. • Vehicle classifications include passenger vehicles with 2 axles, motorcycles, 3-axle light, 3-axle heavy, 4-axle light, 4-axle heavy, 5-axle and those vehicles with 6 or more axles.
25	Proposed Toll Rate Ranges, Soft Rate Cap, Discounts and Free Passage Chart	• This board presents the proposed minimum and maximum toll rate ranges, soft rate caps, discounts and free passage for all vehicle classifications by payment type as part of the Toll Rate Range Proposal. • Please note that everyone, regardless of vehicle classification or payment type, may continue to drive for free within the existing general-purpose lanes. • As an example of how to read this chart, let's take a look at the first row, which covers a 2-axle Passenger Vehicle using an *E-ZPass* transponder using the Phase 1 South HOT lanes. • This particular vehicle would be subject to a toll rate range of $0.20 to $3.76 per mile, with a soft rate cap of $1.50. As a reminder, the actual per-mile toll rate would vary by tolling segment and congestion level; the soft rate cap of $1.50 per mile would be exceeded only when one of the previously mentioned metrics for traffic volume or vehicle speed were not being met; and the maximum toll rate of $3.76 per-mile would never be exceeded.
26	Vehicles that travel for Free in the HOT Lanes	• As shown here, the free passage discount will be granted along the Phase 1 South HOT lanes for H-O-V 3 plus, buses, and motorcycles. • Lastly, the existing general purpose lanes within Phase 1 South will remain free for all vehicles and will not be subject to any tolls.
27	What is Toll Escalation	• For the toll rates to effectively manage demand and ensure reliability for users of the HOT lanes into the future, the maximum per mile rates, soft rate caps, and unregistered video surcharge rates will escalate over time to account for inflation, population employment, and income growth. • The toll rate ranges will be adjusted annually according to the M-D-T-A-approved escalation factors that will account for

		growth in demand for use of the HOT lanes over time, and inflation, which decreases the value of money over time. • The growth in demand factors are based on decades of population, employment, and per capita income growth data and the inflation factor is specific to the region.
28	Example NB Trips	• This board shows example trip costs in toll segments along Phase 1 South in off-peak and peak traffic conditions heading northbound, originating just south of the American Legion Bridge, and exiting at either MD 190, MD 187, or I-370. • The tables show examples of total trip tolls and per mile tolls by segment for off-peak conditions for the 10am and 11am hours northbound and peak hour/heavy congestion conditions during the 6pm hour northbound. • For example, during peak hours or heavy congestion northbound, the total cost from the American Legion Bridge to MD 190 could be $5.23 per trip, from the Bridge to MD 187 could be $10.03 per trip, and from the Bridge to I-370 could be $18.60 per trip. • Using the example northbound toll rates, the chart at the bottom of this board represents the total tolls motorists would pay traveling from Virginia to MD 190, MD 187 and I-370 at different times throughout the day. The vertical lines represent the examples shown.
29	Example SB Trips	• This board is similar to the previous board showing example trip costs in off-peak and peak traffic conditions heading southbound. The trips originate north of I-370 and exiting at Gude Drive, I-495 or into Virginia. • In this example, during OFF-peak conditions heading southbound, the total cost for a trip from I-370 to Gude Drive could be $0.65 per trip, from I-370 to I-495, it could be $3.23 per trip, and from I-370 to Virginia, it could be $4.66 per trip. • Using the example southbound toll rates, the chart at the bottom of this board represents the total tolls motorists would pay traveling from I-370 to Virginia, I-495 East and Gude Drive at different times throughout the day. Again, the vertical lines represent the examples shown.
30	Anticipated Customer Experience	• This table shows example average tolls that could be paid per mile, the average toll paid, and the average trip length in miles at different times of day when traveling on the Phase 1 South HOT lanes, both northbound and southbound. • As a reminder, the example toll rates shown here and in other slides are based on 2021 traffic and revenue models and are for illustrative purposes only; actual toll rates will be set by the Phase 1 South Section Developer.
31	How do toll rates compare?	• The map on this board highlights four states—Virginia, North Carolina, Texas, and Colorado—that have similar HOT lane or

		express lane facilities and compares their average trip price with Phase 1 South. • Virginia's I-95/I-395 Express Lanes have 39 miles of toll lanes with an average trip price of $8.45. • Virginia's I-495 Express Lanes have 14 miles of toll lanes with an average trip price of $5.40. • North Carolina's I-77 Managed Lanes have 26 miles of toll lanes with an average trip price of $7.02. • Texas' I-635 Express Lanes have 13.3 miles of toll lanes with an average trip price of $5.53. • Texas' North Tarrant Express Lanes have 13.3 miles of toll lanes with an average trip price of $5.65. • Colorado's US 36 HOT Lanes have 16 miles of toll lanes with an average trip price of $5.84.
32	Potential Trips	• This board provides example trips where a customer might choose to pay a toll or ride in the Maryland HOT lanes. • In example one, a junior accounting associate living in Shady Grove is starting her new job in Tysons. She'll take advantage of buses that ride in the HOT Lanes for free for her daily commute. She will save up to 10 minutes on the HOT lanes and her trip will be free in Maryland. • In example two, a plumber with a business in Tysons Corner needs to respond to an emergency service call at 1:00 p.m. at the National Cancer Institute in Shady Grove. By choosing the HOT lanes he will save up to 10 minutes and his trip will cost an estimated $3.72 in Maryland. • In example three, a family of four living in Vienna needs to get their youngest child to a 7:00 p.m. soccer game at Gaithersburg High School. They can expect to encounter rush-hour traffic, but since they are an HOV 3 plus vehicle, they will save up to 10 minutes on the HOT lanes and their trip will be free in Maryland. • In example four, an NIH researcher has a 9:00 a.m. speech at a biotech start-up based in McLean. By using the HOT lanes, he will save up to 14 minutes and his trip will cost an estimated $4.03 in Maryland. • In the last example, a veteran from Falls Church has a 3:00 pm. appointment at Walter Reed Medical Center. He will save up to 21 minutes on the HOT Lanes and his trip will cost an estimated $5.85. • The toll rates and time savings are based on 2021 projections and are preliminary for two-axle vehicles with *E-ZPass*.
33	Steps in the Toll Rate Range Setting Process for Phase 1 South	• The steps in the toll rate range setting process for Phase 1 South include three public comment periods during which the public may comment on the tolling proposal before the M-D-T-

		A Board votes on the recommended final toll rate ranges in the fall of 2021. • On May 20th, the M-D-T-A staff presented the toll rate range proposal to the M-D-T-A Board and received approval to seek public comment. Public hearing materials were then posted to the M-D-T-A website for public review, and the first public comment period opened. • In Summer 2021, within the first public comment period, the M-D-T-A will hold in-person and call-in public hearings, where public testimony will be heard. Once hearing dates are announced, details on how to register to provide testimony will be provided. • On August 12th, the first public comment period will close at 5pm. • After the comment period closes, a summary and analysis of the comments and testimony received will be presented to the M-D-T-A Board and posted to the M-D-T-A webpage. The M-D-T-A staff will then present the recommended toll rate ranges for Phase 1 South for the M-D-T-A Board vote, and a second public comment period will open. • In Fall 2021, the second public comment period will close. A summary and analysis of the comments and testimony received during the second comment period will be presented to the M-D-T-A Board and posted to the M-D-T-A webpage. The M-D-T-A staff will then present the final recommended toll rate ranges for Phase 1 South for the M-D-T-A Board vote. • A third public comment period will open for public comment on the recommended action at the Fall 2021 M-D-T-A Board Meeting. The M-D-T-A Board will then vote on the final recommended toll rate ranges. • The public is welcome to watch the MDTA Board meetings live by visiting the MDTA website by following the link provided at the bottom of this board. Pre-registration is required in order to comment on an MDTA Board Meeting agenda item. Instructions for registration are available online at the link provided.
34	Title VI Questionnaire	• Title Six of the Civil Rights Act of 1964 provides that no person shall, on the grounds of race, color, national origin, sex, English proficiency, or disabilities, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity. • Title Six is important because it ensures that public services, including transportation, are provided in an equitable and non-discriminatory manner. • Title Six provides opportunities for public participation in decision-making to everyone, regardless of race, color, national origin, or English proficiency.

		• If you feel that M-D-T-A is not meeting the expectations of Title Six and would like to either file a complaint or seek assistance, please contact the Title Six Officer at 410-537-6720, by email at mdtaeeo@mdta.maryland.gov or by US Mail at 2310 Broening Highway, Baltimore, MD 21224. • Please fill out a Title Six Survey by clicking on the Title Six link at the bottom of this board. Your input will assist M-D-T-A in planning outreach to communities during the course of the toll rate range setting process for Phase 1 South.
35	Thank you	• Thank you for participating. Please stay up to date on the toll rate range setting process by going to our website at mdta.maryland.gov/ALB270TollSetting.

C. Attachment 3: Soft Rate Cap Video and Script

Link to Soft Rate Cap Video: mdta.maryland.gov/ALB270TollSetting

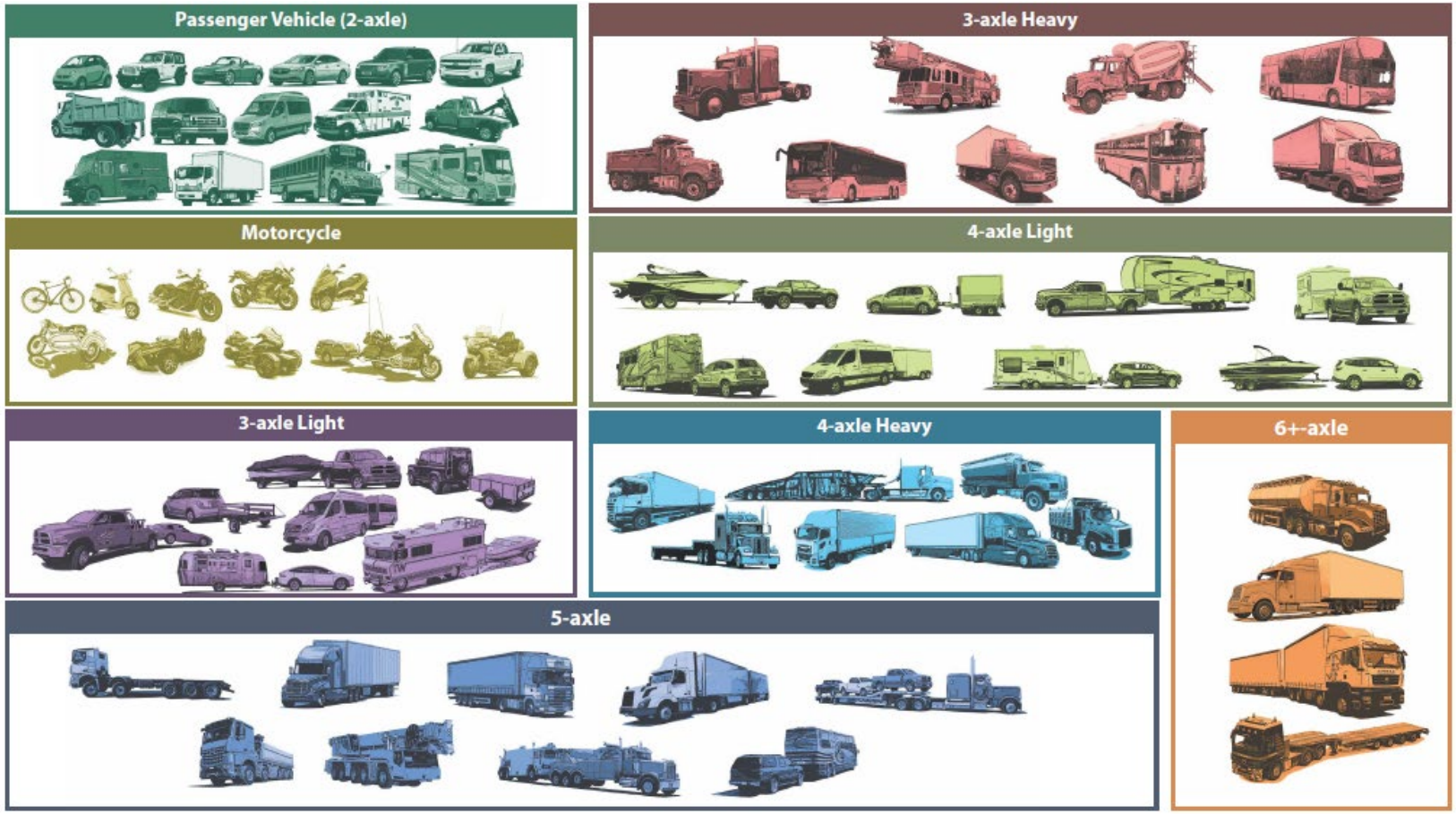
Script for "Soft Cap Examples v2.pptx"

SLIDE	VO
1	Hi! And welcome to the Phase 1 South Toll Rate Range Setting Process in-depth look at the soft rate cap. We know the soft rate cap process is new to our customers, so we've prepared a video that will walk you through two examples of how the soft rate cap is determined and applied. In the examples, the soft rate cap is being exceeded based on two criteria: traffic volume ***or*** traffic speed. In both examples, the soft rate cap can be exceeded so that demand on the High-Occupancy Toll or HOT lanes can be appropriately managed and the overall mobility goals of the project can be achieved. Keep in mind that in both examples, toll rates would apply to each tolling segment, *individually*, rather than the project as a whole.
2	As we know, when HOT lanes are near capacity, congestion can develop in the HOT lanes with even small increases in traffic demand. So, allowing the soft rate cap to be exceeded is another way of saying toll rates will be adjusted to help prevent congestion in the HOT lanes. This adjustment is not arbitrary; it is demand-based and triggers when traffic volumes or speeds reach certain levels in the HOT lanes. So, to be specific, during a preceding 5-minute period, the soft rate cap can be exceeded when the traffic volume exceeds 1,600 vehicles per hour, per lane, ***or*** the average speed is below 50 mph.
3	Before we jump into our first example, let's dive into some graphs and get you oriented. First, all traffic volumes have been converted to 2-axle passenger car equivalents. Both graphs here have time on the X axis, in 5-minute intervals. The top graph show HOT lanes average traffic volume, along with the corresponding demand factors, on the Y axis, and the bottom graph has the toll rate per mile on its Y axis. This is where we'll see the soft rate cap fluctuate to meet traffic demands.
	OK, let's first look at an example of toll rates "exceeding" the soft rate cap due to **traffic volume**. We begin by looking at vehicles driving north on a segment of the I-270 HOT lanes towards I-370. Traffic is moving pretty well, and the volume is currently below the 1600 threshold, so the soft rate cap is at $1.50 per mile. Five minutes later, demand for the HOT lane has increased and traffic levels increase to about 1,620. This triggers the demand factor of 1.05. We multiply the current $1.50 per mile rate times the demand factor and get our new rate of $1.58 per mile for this segment. Remember, this increase is temporary and will be recalculated to a new rate in the next five minutes. That new rate will be based on demand. This temporary increase in the rate helps ensure the overall mobility goals of the project can be met in the following 5-minute time periods.
4	In our next five minutes of looking at vehicles on a segment of the I-270 HOT lanes, demand and traffic continue to increase even after the toll rates were temporarily

	increased to $1.58. Traffic increases to about 1,660, corresponding to a demand factor of 1.10. Therefore, the previous revised toll rate cap of $1.58 can be multiplied by 1.10 for a new revised toll rate cap of $1.73 in this segment for the next 5-minute period.
5	We keep observing the vehicles on I-270, and traffic volume is still increasing, up to 1,705 now, which leads to a new demand factor of 1.15 and $1.73 times 1.15 gives us our new toll rate cap of $1.99 for the next 5-minutes.
6	The $1.99 toll rate begins to better manage demand, although traffic is still a little higher than the maximum desired level of 1,600. 1,600 was determined to be the traffic threshold for our project above which there is a higher risk for congestion to develop in the HOT lanes. So even though traffic drops to 1,620, it is still above the 1,600 threshold, so a demand factor of 1.05 is used. The revised toll rate cap for the next 5-minute period is now $2.09 for this segment, or $1.99 times 1.05. Even if conditions are improving, the rate goes up – though at smaller increments – until the target of 1600 vehicles is achieved.
7	Traffic in the HOT lanes now drops below 1,600, meaning a lower risk for congestion to develop in the HOT lanes due to traffic levels. Once that 1600-vehicle target is achieved, the rate will begin to decline. It won't drop all at once - to help prevent the cycle from starting again - but as long as traffic stays below 1600, the rate will decline incrementally. A demand factor of 0.9 is used. $2.09 times 0.90, gives us $1.88 toll rate for the next 5-minute period. If traffic remains below 1,600, the revised toll rate cap would continue to decline at 0.90 factor intervals every 5-minutes until it returns to the $1.50 soft rate cap.
8	OK, now we are going to look at an example of toll rates "exceeding" the soft rate cap due to **traffic speeds**. This specific example is a more unique situation compared to the traffic volume example on the previous slides. In this example congestion quickly builds on the HOT lanes and toll rates need to rapidly increase. Let's head out for another drive. We are looking at vehicles at the American Legion Bridge, heading north towards I-270. Speeds rapidly decline to about 35 miles per hour in the HOT lanes. The heavy traffic congestion could be due to events such as a severe crash or extreme weather. Because of the decrease in speed, the overall project mobility goals are not being achieved in this segment. With speed, the developer can apply a demand factor ranging from 1.05 to 1.25 for speeds below 50 miles per hour. More flexibility is allowed in the speed demand factors compared to the traffic demand factors shown previously to allow for a better pricing response during unique events. The developer applies the 1.25 demand factor in an attempt to return to speeds over 50 miles per hour as quickly as possible. Note that a speed threshold of 50 miles per hour is used here with the soft rate cap. This is higher than the 45 miles per hour overall minimum speed desired for the HOT lanes. The 5 mile per hour buffer is included here because the speeds are monitored in the previous 5-minute period to make toll rate changes

	in the next 5-minute period. The revised toll rate cap for the next 5-minute period in this segment becomes $1.88, or $1.50 times 1.25.
9	That change doesn't have the full intended effect, as speeds continue to decline even with the 1.25 demand factor and higher revised toll rate cap. A 1.25 demand factor is again applied. $1.88 times 1.25 gives us a new toll rate of $2.35 per mile for the next 5-minute period in this segment.
10	We see speeds continue to drop over the next five minutes, so the 1.25 demand factor is applied again.
11	And the next five minutes don't get much better, so the 1.25 factor is applied again.
12	Speeds finally recover to around 45 miles per hour. A demand factor of 1.05 is decided to be applied to the previous revised toll rate cap of $3.68 to try to return speeds to over 50 miles per hour. Because 1.05 times $3.68 is higher than the maximum toll rate of $3.76 per mile, the revised toll rate cap would be limited to the $3.76 maximum toll rate in this segment.
13	Speeds exceed 50 mph and a demand factor of 0.90 is applied. Similar to the traffic threshold example, applying the 0.90 demand factor would continue until the revised toll rate cap returns to the soft rate cap of $1.50. The temporary revised toll rate cap doesn't immediately return to the soft rate cap now that we have exceeded 50 mph. This is to help ensure that demand is adequately managed before making large changes to the toll rates.
14	Thank you so much going for a ride with us. We hope you found this explanation of the soft rate cap helpful. For more information on the Phase 1 South Toll Rate Range Setting Process, please visit *mdta.maryland.gov/A-L-B-2-7-0-TollSetting*.

D. Attachment IV: Vehicle Classifications



TAB 13

VERBAL

TAB 14

VERBAL