



Maryland Transportation Authority

BOARD MEETING

THURSDAY, NOVEMBER 17, 2022

MARYLAND TRANSPORTATION AUTHORITY
2310 BROENING HIGHWAY
BALTIMORE, MD 21224

IN-PERSON AND LIVESTREAM



MARYLAND TRANSPORTATION AUTHORITY BOARD MEETING

2310 Broening Highway * Training Room – 2nd Floor * Baltimore, MD 21224

NOVEMBER 17, 2022 9:00 AM

This meeting will be livestreamed on the [MDTA Board Meeting Page](#)

NOTES:

- This is an In-Person Open Meeting being conducted via livestreaming.
- The public is welcomed to watch the meeting at the link above.
- *If you wish to comment on an agenda item please email your name, affiliation, and the agenda item to nhenson@mdta.state.md.us no later than 5:00 p.m. on Tuesday, November 15. You **MUST** pre-register and attend the meeting in person in order to comment.* Once pre-registered, all pertinent information will be emailed to you.

AGENDA

OPEN SESSION – 9:00 AM

Call Meeting to Order

1. **Approval** – Open Session Meeting Minutes of October 27, 2022 Chairman 5 min.
2. **Approval** – Closed Session Meeting Minutes of October 27, 2022 Chairman 5 min.
3. **Approval** – Contract Awards Donna DiCerbo 15 min.
 - HT-2709-0000 – Envelope and Switchgear Replacements at Baltimore Harbor Tunnel Vent Buildings
 - KH-3031-0000 – Noise Wall along I-95 Southbound South of Calvary Road
 - MT-00210742 (MT-3154-0000) – Fire Alarm and Suppression Preventive Maintenance and Repair & Fire Alarm Monitoring
 - J01B3600006 – Open Text Additional Licenses
4. **Update** – Procurement Report on All Open Contracts – Verbal Donna DiCerbo 5 min.
5. **Approval** – Quarterly Review of Investment Strategy and Benchmarks Allen Garman 5 min.
6. **Update** – Traffic and Revenue Forecast Update – A Review of the annual updates to the traffic and revenue forecasts for all facilities Chantelle Green 10 min.
7. **Approval** – Fiscal Year (FY) 2024 Preliminary Operating Budget – Approval of the preliminary operating budget Jeffrey Brown 10 min.
8. **Approval** – Final Fiscal Year (FY) 2023-2028 Consolidated Transportation Program (CTP) – Approval of the six-year capital budget Jeanne Marriott 10 min.
9. **Approval** – Fiscal Year (FY) 2023-2028 Financial Forecast - Approval of the six-year financial forecast Chantelle Green 10 min.

MDTA BOARD MEETING
NOVEMBER 17, 2022 9:00 AM

AGENDA
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|--|-----------------|---------|
| 10. <u>Update</u> – <u>Bi-Annual Review of Revenue Sufficiency</u> – Review of revenues as required by the MDTA Board Operating Policy | Chantelle Green | 5 min. |
| 11. <u>Update</u> – <u>1st Quarter Operating Budget Comparison</u> – Review of actual vs. projected FY 2023 operating budget spending | Jeffrey Brown | 5 min. |
| 12. <u>Update</u> – <u>1st Quarter Capital Budget Comparison</u> – Review of actual vs. projected FY 2023 capital budget spending | Jeanne Marriott | 5 min. |
| 13. <u>Update</u> – <u>Quarterly Update on Traffic and Revenue</u> – Update on the actual performance of traffic and revenue compared to the forecast through September 30, 2022 | Deb Sharpless | 10 min. |
| 14. <u>Update</u> – <u>Independent Auditors’ Report on the FY 2022 Financial Statements</u> | Deb Sharpless | 10 min. |
| 15. <u>Update</u> – <u>Executive Director’s Report</u> – Verbal | William Pines | 10 min. |

Vote to Adjourn Meeting

TAB 1

MARYLAND TRANSPORTATION AUTHORITY
BOARD MEETING

THURSDAY, OCTOBER 27, 2022
9:00 A.M.

2310 BROENING HIGHWAY, BALTIMORE MD 21224
IN-PERSON & LIVESTREAMED OPEN MEETING

OPEN SESSION

R. Earl Lewis, Jr., Acting Chairman

MEMBERS ATTENDING:

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

STAFF ATTENDING:

Abigail Alam
Tekeste Amare
Col. Kevin Anderson
Chantelle Green
James Harkness
Natalie Henson
Jeanne Marriott
Selena McKissick
Kimberly Millender, Esq.
Sushmita Mitra
Mary O’Keeffe
William Pines
John Sales
Deb Sharpless
John Wedemeyer

OTHERS ATTENDING:

Troy E. Palmer, Sr., MDTA Retiree
Sergeant Rodney C. Winmond, MDTA Police Retiree

At 9:00 a.m. Acting Chairman R. Earl Lewis, Jr. called the meeting of the Maryland Transportation Authority (MDTA) Board to order. The meeting was held in-person at 2310 Broening Highway, Baltimore MD and was livestreamed on the MDTA Board Meeting web page.

APPROVAL – OPEN SESSION MEETING MINUTES OF SEPTEMBER 29, 2022

Upon motion by Member William H. Cox, Jr. and seconded by Member Mario J. Gangemi, the open session meeting minutes of the MDTA Board meeting held on September 29, 2022 were unanimously approved.

RESOLUTION – YEARS OF SERVICE RECOGNITION

Mr. Will Pines read and presented Years of Service Recognition Resolutions to two retired employees: Troy E. Palmer, Sr. and Sergeant Rodney C. Winmond.

On the occasion of Mr. Palmer's and Sergeant Winmond's retirement from their distinguished careers of service, the Acting Chairman and Members of the Maryland Transportation Authority hereby express to them their most sincere appreciation for their excellence and commitment.

APPROVAL – CANTON RAILROAD

Mr. William Pines and Ms. Deborah Sharpless requested approval from the MDTA Board Members of the proposed Canton Development Corporation, Inc. (Canton) Board of Directors and designation of the Chief Financial Officer, or designee, as proxy to attend the Annual Meeting of stockholders of Canton on November 16, 2022 to vote to approve the election of the Canton Board of Directors.

Mr. Pines explained that the MDTA is the sole stockholder of Canton and the day-to-day operations of Canton are managed by Mr. John Magness, the President and CEO, with the oversight of a Board of Directors. Per the Corporate By-Laws, the stockholders are to gather annually and elect the members of the Board of Directors. Mr. Pines then turned the floor over to Ms. Sharpless to complete the presentation.

Ms. Sharpless explained that as the sole stockholder of Canton, the MDTA must vote on the election of members of the Canton's Board of Directors at Canton's Annual Meeting. Currently, the Canton Board consists of seven Directors, including a MDTA Board Member who serves in an *ex officio* capacity. The Directors serve three-year terms that are staggered, resulting in the election of two to three Directors each year.

The MDTA recommends the reappointment of Mr. Stephen Kauffman. Mr. Kauffman's reappointment is strongly endorsed by Mr. John Magness, Mr. William Hellman (Canton Chairman), and Mr. William Cox (Canton *ex officio* Director).

Upon motion by Member Jeffrey S. Rosen and seconded by Member Mario J. Gangemi, the Members unanimously approved the Canton Railroad Board of Directors and the designation of the Chief Financial Officer as proxy to attend the Annual Meeting of Stockholders to vote.

APPROVAL – CONTRACT AWARDS

- **BB-3017-0000 – Eastbound Bay Bridge Deck Replacement, Phase 1, Package 1**

Mr. Tekeste Amare requested contingent approval from the MDTA Board to execute Contract No. BB-3017-0000 – Eastbound Bay Bridge Deck Replacement, Phase 1, Package 1 with Kokosing McLean Joint Venture Inc. for a Guaranteed Maximum Price (GMP) of \$139,992,490.80.

Mr. Amare explained that the construction services of this project include the deck floor system replacement and up to 4'-0" widening for deck truss Spans T14-T22, MASH TL-4 barrier upgrade, truss strengthening at selected members, pin and hanger structural steel retrofits, and signal gantry replacement. The scope also includes utility relocations and off-site storm water management work.

Upon motion by Member Mario J. Gangemi and seconded by Member William C. Ensor, III, the Members unanimously gave contingent approval to execute Contract No. BB-3017-0000 – Eastbound Bay Bridge Deck Replacement, Phase 1, Package 1.

APPROVAL – CONVEYANCE – HEAT CENTER (MC #22-7046)

Mr. John Wedemeyer requested MDTA Board approval for the conveyance of property located at Route 22 at Technology Drive, Aberdeen, Harford County, Maryland. This property is known as Heat Center (MC #22-7046).

Mr. Wedemeyer explained that the MDTA plans to convey Parcel 1-A containing 14,196 sq. ft. or 0.326 acres, plus or minus, Parcel 1-B containing 37,970 sq. ft. or 0.872 acres, plus or minus, and Parcel 2 containing 13,688 sq. ft. or 0.314 acres, plus or minus. The MDTA is requesting to convey fee simple of Parcel 1-A to the City of Aberdeen under a 2001 unrecorded agreement between MDTA and City of Aberdeen to construct a water tower. The remainder of the property, Parcel 1-B & Parcel 2, will be convey fee simple to Harford County. The Harford County 2014 lease will be terminated and the lease did not contain any consideration.

He further explained that no consideration will be obtained from either fee simple conveyances with the condition that the County will maintain Park and Ride provisions on Parcel 1-B.

A request was made to the other divisions within MDTA to determine if there were any current or future needs for the subject property. It was determined and confirmed that there were no needs for this property.

Upon motion by Member Jeffrey S. Rosen and seconded by Member Mario J. Gangemi, the Members unanimously gave approval for the conveyance of property located at Route 22 at Technology Drive, Aberdeen, Harford County, Maryland (Heat Center - MC #22-7046).

APPROVAL – LAND SWAP – ALLIED (CAPSA) 3510 HAWKINS POINT ROAD (MC #22-7047)

Mr. John Wedemeyer requested MDTA Board approval for the land swap of property located at 3510 Hawkins Point Road, Baltimore, Maryland 21226 (MC #22-7047).

Mr. Wedemeyer explained that in 2018, MDOT SHA conveyed Hawkins Point Road parcel (Ward -25 Section – 09 Block – 7005 Lot – 17) to the MDTA for the use of a transportation purpose or other public purposes. The MDTA is now planning to build a new MDTA Police Academy at that location. During planning efforts, it has been proposed to swap land with Allied Contractors, Inc. (CAPSA) in order to facilitate MDTA design issues for the future Police Academy. This would be beneficial to both MDTA and Allied (CAPSA).

A request was made to the other divisions within MDTA to determine if there were any current or future needs for the subject property. It was determined and confirmed that there were no needs for this property.

Upon motion by Member William H. Cox, Jr. and seconded by Member William C. Ensor, III, the Members unanimously gave approval for the land swap of property located at 3510 Hawkins Point Road, Baltimore, Maryland 21226 (MC #22-7047).

APPROVAL – MD 155 BRIDGE OVER I-95 DEDICATION TO SP/4 RONALD ANTHONY SPUDIS

Mr. William Pines requested MDTA Board approval, pursuant to MDTA Board Policy A-MDT-STDR-0101, regarding the request by District 34 Senator Bob Cassilly, with support of District 34 Delegates Maryann Lisanti, Steve Johnson, and Susan McComas, to dedicate the MDTA MD 155 bridge over I-95 to SP/4 Ronald Anthony Spudis.

Mr. Pines explained that SP/4 Ronald Anthony Spudis was born and raised in Harford County, Maryland. He joined the Army after graduating from John Carroll High School in 1968 and was deployed to Vietnam. He was killed in action in Vietnam on December 11, 1971. For his heroism in action he was awarded the Silver Star of Valor, Bronze Star, Air Medal, Purple Heart, and the Vietnam Gallantry Cross. SP/4 Spudis is buried in Harford Memorial Gardens.

Upon motion by Member John F. von Paris and seconded by Member William H. Cox, Jr., the Members unanimously gave approval to dedicate the MD 155 bridge over I-95 to SP/4 Ronald Anthony Spudis.

UPDATE – CONSOLIDATED TRANSPORTATION PROGRAM (CTP) PROCESS AND ADDITIONS

Ms. Jeanne Marriott updated the MDTA Board on the Consolidated Transportation Program (CTP) Process and additions to the capital program. She explained that each year the Maryland Department of Transportation (MDOT) issues the CTP report which is Maryland's six-year capital budget for transportation projects. The MDTA portion of the CTP presents ongoing and new capital projects for MDTA facilities.

The CTP is updated twice a year and brought to the Board for approval in June as a draft and in November as a final. After approval by the Board Members in June, the Draft CTP is presented as part of the MDOT CTP Tour to State and local elected officials and citizens throughout the State of Maryland for review and comment. These meetings provide the local legislators and the public an opportunity to communicate their priorities and concerns in person.

She explained that new capital projects originate from five sources: long-range capital needs, inspection findings, regulatory compliance, increased capacity needs, and/or local priority letters/legislative requests.

The Fiscal Year (FY) 2023-2028 Final CTP includes four new projects: (1) MD 695 Ramps to I-95 Northbound Express Toll Lanes, (2) Replace Dynamic Messaging Signs (DMS) and Toll Rate Signs (TRS) at Various Facilities, (3) Replace Closed Circuit Televisions (CCTVs) at Various Facilities, and (4) Baltimore Harbor Tunnel Lane Use Signals (LUS) Extension. These projects will be presented to the Board for approval in November as part of the Final FY 2023-2028 CTP.

UPDATE – ANNUAL UPDATE ON FACILITY CONDITION INSPECTIONS

Mr. Tekeste Amare gave an update on the Fiscal Year 2022 Annual Facilities Inspections. He provided a brief overview of the types of inspections that have been completed as well as the Inspection Findings for all structures that were inspected.

UPDATE – FISCAL YEAR 2022 INDEPENDENT AUDITORS' SERVICE ORGANIZATION CONTROL (SOC) 1 AND SOC 2 REPORTS

Ms. Deborah Sharpless presented an overview of the results of the Fiscal Year 2022 Service Organization Control (SOC) 1 and SOC 2 Reports for the Maryland *E-ZPass* System. The audit period for both audits was from July 1, 2021 through June 30, 2022.

Ms. Sharpless explained that for the SOC 1 audit this was the first full year of Transcore and Kapsch after the transition from Conduent. There was a review of 11 Control Objectives by Transcore and 5 Control Objectives by Kapsch. There were no qualifications within the report; however, there were unmodified opinions issued.

She further explained that for the SOC 2 audit this was the first full year of Transcore. There were no findings; however, there were unmodified opinions issued.

UPDATE – FISCAL YEAR (FY) 2021 SINGLE AUDIT REPORT

Ms. Deborah Sharpless updated the MDTA Board with the results of the Independent Auditors' Report on Compliance for Major Federal Awards (Single Audit).

She explained that on September 25, 2022, CliftonLarsonAllen (CLA) issued its report on the MDTA's compliance with the types of compliance requirements required for federal awards. The report indicated that in the auditors' opinion, the MDTA complied, in all material respects, with the types of compliance requirements that could have a direct and material effect on the major federal program for the fiscal year ended June 30, 2021. However, the audit disclosed a deficiency as it relates to the tracking equipment purchased and disposed of with federal funds. The results of the audit, including the MDTA's response are attached.

She further explained that the MDTA concurred with the finding and that going forward the MDTA will separately identify and track equipment purchased with federal funds as required under the Equitable Sharing Program.

UPDATE – EXECUTIVE DIRECTOR

Mr. William Pines spoke on the following topics: Consolidated Transportation Program (CTP) Tour Meetings coming to an end on November 4th; reminders on the November 30th end to the Customer Assistance Plan, MDTA Recruitment Efforts being in High Gear this Past Year; Expanding Apprenticeship Initiatives on hard-to-fill positions primarily in the Skilled Trades (Electrician, HVAC, and Plumbing) and Heavy Equipment Mechanic (Diesel Technician); the October 5th Bay Bridge Reconstruction Advisory Group (BBRAG) Meeting; the October 12th Ceremony led by Governor Larry Hogan to dedicate and open the New Governor Harry W. Nice Memorial/Senator Thomas "Mac" Middleton Bridge which was completed on budget and three months ahead of schedule; the October 15th Belvidere Road Groundbreaking Ceremony led by Governor Larry Hogan; and the Bay Bridge Run which will take place on November 13th.

VOTE TO GO INTO CLOSED SESSION

At 10:34 a.m., upon motion by Member Mario J. Gangemi and seconded by Member William H. Cox, Jr., the Members voted unanimously to move into Closed Session under the Maryland Open Meetings Act, the MDTA Board met in Closed Session under the General Provisions Article, Section 3-305(b)(10) and (12) to receive an update on deployment of police staff and resources and other security measures; and to discuss pending investigative proceedings involving possible criminal conduct; and Section 3-305(b)(8) to receive a status update on all litigation currently pending against the MDTA.

In attendance for the Closed Session were Acting Chairman R. Earl Lewis, Jr.; Members Cox, Ensor, Gangemi, Rosen, and von Paris in-person; Members Carroll, Gaines, and Penny-Ardinger via conference call; Will Pines; Kimberly Millender, Esq.; Col. Kevin Anderson; and Natalie Henson.

VOTE TO ADJOURN CLOSED SESSION

At 11:34 a.m., a motion was made by Member Mario J. Gangemi and seconded by Member William H. Cox, Jr., which was unanimously approved, to adjourn the Closed Session and return to Open Session. There were no actions taken in Closed Session that require ratification.

VOTE TO ADJOURN MEETING

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

The next MDTA Board Meeting will be held on Thursday, November 17, 2022 at 9:00 a.m. at MDTA, 2310 Broening Highway, Baltimore MD and will be livestreamed on the MDTA Board webpage.

APPROVED AND CONCURRED IN:

James F. Ports, Jr., Chairman

TAB 2

CLOSED SESSION MINUTES

VERBAL

TAB 3



Maryland Transportation Authority

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
James F. Ports, Jr., Chairman

Board Members:

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
FROM: Director of Procurement Donna DiCerbo, CPPO, CPPB
SUBJECT: HT-2709-0000 - Envelope and Switchgear Replacements at Baltimore Harbor Tunnel Vent Buildings
DATE: November 17, 2022

PURPOSE

To seek contingent approval to execute Contract No. HT-2709-0000 - Envelope and Switchgear Replacements at Baltimore Harbor Tunnel (BHT) Vent Buildings.

SUMMARY

The work to be performed under this contract is located at the Fairfield and Canton Vent buildings of the BHT facility. The scope of work includes the complete removal of the existing building facades, intake louvers, and roofs with the installation of new architectural precast concrete wall panels, storm proof louvers, and new roofing systems implementing phased construction practices at each building. Complete removal and replacement of the existing end of service life primary Switchgear/MCC lineups that support all tunnel operations (ventilation, life safety, lane use, traffic signing, lighting, and pumps). These primary units will be removed and new installed applying detailed phased construction to maintain all safe tunnel operations during the construction duration. A single-story building addition is required at the Canton building to accommodate new switchgear and other new electrical components. Existing deficient elevators will be removed and replaced with new modern code compliant systems and construction of additional safety egress stairways. New code compliant fire pumps will be installed to complete the fire safety systems. All new systems will be integrated into the SCADA controls system and tested.

RECOMMENDATION

To provide contingent approval to execute Contract No. HT-2709-0000 - Envelope and Switchgear Replacements at Baltimore Harbor Tunnel Vent Buildings.

ATTACHMENT

- Project Summary



Maryland
Transportation
Authority

AUTHORITY BOARD PROJECT SUMMARY

HT-2709-0000 ENVELOPE AND SWITCHGEAR REPLACEMENTS AT BALTIMORE HARBOR TUNNEL VENT BUILDINGS

PIN NUMBER 2306
CONTRACT NUMBER HT-2709-0000
CONTRACT TITLE Envelope and Switchgear Replacements at Baltimore Harbor Tunnel Vent Buildings

PROJECT SUMMARY The work to be performed under this Contract is located at the Fairfield and Canton Vent buildings of the BHT facility. The scope of work includes the complete removal of the existing building facades, intake louvers, and roofs with the installation of new architectural precast concrete wall panels, storm proof louvers, and new roofing systems implementing phased construction practices at each building. Complete removal and replacement of the existing end of service life primary Switchgear/MCC lineups that support all tunnel operations (ventilation, life safety, lane use, traffic signing, lighting, and pumps). These primary units will be removed and new installed applying detailed phased construction to maintain all safe tunnel operations during the construction duration. A single story building addition is required at the Canton building to accommodate new switchgear and other new electrical components. Existing deficient elevators will be removed and replaced with new modern code compliant systems and construction of additional safety egress stairways. New code compliant fire pumps will be installed to complete the fire safety systems. All new systems will be integrated into the SCADA controls system and tested.

SCHEDULE

ADVERTISEMENT DATE 11/5/2021
ANTICIPATED NOTICE TO PROCEED DATE Dec-22
DURATION (COMPLETION DATE) 1,460 CD

MBE PARTICIPATION

OVERALL MBE
AFRICAN AMERICAN
ASIAN AMERICAN
HISPANIC AMERICAN
WOMEN
NATIVE AMERICAN
VSBE

	(\$) Advertised GOAL (%)	Proposed GOAL (%)
OVERALL MBE	20.00%	20.47%
AFRICAN AMERICAN	0.00%	2.87%
ASIAN AMERICAN	0.00%	2.73%
HISPANIC AMERICAN	0.00%	1.47%
WOMEN	0.00%	13.40%
NATIVE AMERICAN	0.00%	0.00%
VSBE	1.00%	1.00%

ENGINEER'S ESTIMATE (EE) \$54,550,357.12

BID RESULTS

BID AMOUNT (\$) **% VARIANCE TO EE**

BID PROTEST YES ☒ NO ☐

W.M. Schlosser Company, Inc.	\$67,877,000.00	24%
Grunley Construction Company, Inc.	\$68,169,998.00	25%
Kiewit, Infrastructure Co.	\$84,496,000.00	55%

FUNDING SOURCE 100.00% TOLL REVENUE



Maryland
Transportation
Authority

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
James F. Ports, Jr., Chairman

Board Members:

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
FROM: Director of Procurement Donna DiCerbo, CPPO, CPPB
SUBJECT: KH-3031-0000 - Noise Wall Along I-95 Southbound South of Calvary Road
DATE: November 17, 2022

PURPOSE

To seek contingent approval to execute Contract No. KH-3031-0000 - Noise Wall Along I-95 Southbound South of Calvary Road.

SUMMARY

The work to be performed under this contract is located adjacent to I-95 (John F. Kennedy Memorial Highway) in Harford County. The scope of work includes constructing a noise barrier along I-95 southbound south of Calvary Road for approximately 0.7 miles. The noise barrier is needed to attenuate noise coming from vehicular traffic on the existing and planned future expansion of I-95.

RECOMMENDATION

To provide contingent approval to execute Contract No. KH-3031-0000 - Noise Wall Along I-95 Southbound South of Calvary Road.

ATTACHMENT

- Project Summary



Maryland
Transportation
Authority

AUTHORITY BOARD PROJECT SUMMARY

KH-3031-0000 NOISE WALL ALONG I-95 SOUTHBOUND SOUTH OF CALVARY ROAD

PIN NUMBER 2526
CONTRACT NUMBER KH-3031-0000
CONTRACT TITLE Noise Wall Along I-95 Southbound South of Calvary Road

PROJECT SUMMARY The work to be performed under this Contract is located adjacent to I-95 (John F. Kennedy Memorial Highway) in Harford County. The scope of work includes constructing a noise barrier along I-95 southbound south of Calvary Road for approximately 0.7 miles. The noise barrier is needed to attenuate noise coming from vehicular traffic on the existing and planned future expansion of I-95.

SCHEDULE

ADVERTISEMENT DATE 8/1/2022
ANTICIPATED NOTICE TO PROCEED DATE Feb-23
DURATION (COMPLETION DATE) 9/1/2024

MBE PARTICIPATION

OVERALL MBE
AFRICAN AMERICAN
ASIAN AMERICAN
HISPANIC AMERICAN
WOMEN
NATIVE AMERICAN
VSBE

	(\$) Advertised GOAL (%)	Proposed GOAL (%)
OVERALL MBE	20.00%	20.01%
AFRICAN AMERICAN	-	9.81%
ASIAN AMERICAN	-	10.20%
HISPANIC AMERICAN	-	0.00%
WOMEN	-	0.00%
NATIVE AMERICAN	-	0.00%
VSBE	1.00%	1.00%

ENGINEER'S ESTIMATE (EE) \$10,584,241.60

BID RESULTS

BID PROTEST YES ☐ NO ☒
FUNDING SOURCE 100.00% TOLL REVENUE

BID AMOUNT (\$) **% VARIANCE TO EE**

The Six-M Company, Inc.	\$9,819,000.00	-7%
Kibler Construction Co., Inc.	\$10,499,427.44	-1%
Allan Myers MD, Inc.	\$10,837,777.00	2%
Concrete General, Inc	\$10,852,509.25	3%
Brawner Builders Inc.	\$11,110,750.20	5%
Rustler Construction Inc.	\$11,605,880.90	10%
PKF-Mark III, Inc.	\$11,717,436.00	11%
Kokosing Construction Company, Inc.	\$12,392,353.52	17%



Maryland Transportation Authority

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
James F. Ports, Jr., Chairman

Board Members:

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
FROM: Director of Procurement Donna DiCerbo, CPPO, CPPB
SUBJECT: MT-00210742 (MT-3154-0000) Fire Alarm and Suppression Preventive Maintenance and Repair & Fire Alarm Monitoring for MDTA Facilities
DATE: November 17, 2022

PURPOSE

To seek approval to execute Contract No. MT-00210742 (MT-3154-0000) Fire Alarm and Suppression Preventive Maintenance and Repair & Fire Alarm Monitoring for MDTA Facilities.

SUMMARY

The contract is for the provision of a fire alarm and suppression maintenance and repair and fire alarm monitoring service. The requested fire alarm and suppression preventive maintenance and repair and monitoring services requires the contractor to furnish all labor, materials, supplies, equipment, tools, supervision, transportation, insurance, permits, and confined space program necessary to provide service calls and repair and routine preventive maintenance and testing, inspections, emergency service, and monitoring at MDTA-wide fire alarm/suppression systems, which includes fire alarm and suppression mechanical components, and to adhere to applicable MDTA policies and applicable regulatory requirements regarding hazardous materials, wastes, recycling, and general refuse handling, storage, and disposal at the various MDTA facilities.

RECOMMENDATION

To provide approval to execute Contract No. MT-00210742 (MT-3154-0000) Fire Alarm and Suppression Preventive Maintenance and Repair & Fire Alarm Monitoring for MDTA Facilities.

ATTACHMENT

- Project Summary



Maryland
Transportation
Authority

AUTHORITY BOARD PROJECT SUMMARY

MT-00210742 (MT-3154-0000) Fire Alarm and Suppression Preventive Maintenance and Repair & Fire Alarm Monitoring for MDTA Facilities

PIN NUMBER

N/A

CONTRACT NUMBER

MT-00210742 (MT-3154-0000)

CONTRACT TITLE

Fire Alarm and Suppression Preventive Maintenance and Repair & Fire Alarm Monitoring

PROJECT SUMMARY

The contract is for the provision of a Fire Alarm and Suppression Maintenance and Repair and Fire Alarm Monitoring service. The requested Fire Alarm and Suppression preventive maintenance and repair and Monitoring services requires the Contractor to furnish all labor, materials, supplies, equipment, tools, supervision, transportation, insurance, permits, and confined space program necessary to provide service calls and repair and routine preventive maintenance and testing, inspections, emergency service, and monitoring at MDTA Authority-wide fire alarm/suppression systems, which includes fire alarm and suppression mechanical components, and to adhere to applicable MDTA policies and applicable regulatory requirements regarding hazardous materials, wastes, recycling and general refuse handling, storage and disposal at the various MDTA facilities.

SCHEDULE

ADVERTISEMENT DATE

N/A

ANTICIPATED NOTICE TO PROCEED DATE

12/22/2022

DURATION (CALENDAR DAYS)

1095

(3 years)

ENGINEER'S ESTIMATE (EE)

(\$)

N/A

MBE PARTICIPATION

Advertised Goal

Proposed Goal

OVERALL MBE

0.00%

0%

No Sub Goals

0.00%

0%

VSBE

0.00%

0%

BID RESULTS

BID AMOUNT (\$)

**% VARIANCE
TO EE**

Advanced Fire Protection
Systems, LLC

\$ 1,340,010.00

N/A

Blazeguard Commercial Services,

\$ 1,920,475.00

S.A. Comunale Company, Incorporated

\$ 3,103,473.90

ADT Commercial

\$ 5,590,230.05



**Maryland
Transportation
Authority**

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
James F. Ports, Jr., Chairman

Board Members:

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
FROM: Director of Procurement Donna DiCerbo, CPPO, CPPB
SUBJECT: J01B3600006 - OpenText Additional Licenses
DATE: November 17, 2022

PURPOSE

To seek approval to execute Contract No. J01B3600006 - OpenText Additional Licenses.

SUMMARY

This Small Business Reserve (SBR) contract is for the provision for additional OpenText user licenses and three (3) years of OpenText Maintenance and Support for the MDTA Division of Information Technology. The OpenText platform is used to maintain, store, and allow quick access to various documents as well as allows fluent workflow management. The MDTA leverages the OpenText Platform for management of document to include Procurement Card Log processing and approval, Financial File Cabinet for storage of important finance documents, Procurement Review Group eSignature, Invoice tracking & approval, and task order management for the Office of Engineering and Construction, Electronic Toll Collection KPI reviews, and Human Resource Scanning for digital storage and allows sorting of important documents, as well as allowing for upcoming storage of Police and Civil Rights and Fair Practices files. The additional licenses and continued software maintenance and support will allow the MDTA to maintain our current systems, continued use of the OpenText software, as well as access to technical support as needed.

RECOMMENDATION

To provide approval to execute Contract No. J01B3600006 - OpenText Additional Licenses.

ATTACHMENT

- Project Summary



Maryland
Transportation
Authority

AUTHORITY BOARD PROJECT SUMMARY

J01B3600006 OpenText Additional Licenses

PIN NUMBER N/A
CONTRACT NUMBER J01B3600006
CONTRACT TITLE OpenText Additional Licenses

PROJECT SUMMARY This Small Business Reserve (SBR) contract is for the provision for additional OpenText user licenses and three (3) years of OpenText Maintenance and Support for the MDTA Division of Information Technology. The OpenText platform is used to maintain, store and allow quick access to various documents as well as allows fluent workflow management. The MDTA leverages the OpenText Platform for management of document to include Procurement Card Log processing and approval, Financial File Cabinet for storage of important finance documents, Procurement Review Group eSignature, Invoice tracking & approval and task order management for the Office of Engineering and Construction, Electronic Toll Collection KPI reviews and Human Resource Scanning for digital storage and allows sorting of important documents, as well as allowing for upcoming storage of Police and Civil Rights and Fair Practices files. The additional licenses and continued software maintenance and support will allow the MDTA to maintain our current systems, continued use of the OpenText software, as well as access to technical support as needed.

SCHEDULE

ADVERTISEMENT DATE 8/17/2022
ANTICIPATED NOTICE TO PROCEED DATE 3/1/2023
DURATION (CALENDAR DAYS) 1095 days
 (3 years)

ENGINEER'S ESTIMATE (EE) **\$320,000.00**

MBE PARTICIPATION **Advertised Goal** **Proposed Goal**

OVERALL MBE **0.00%** **0%**
No Sub Goals **0.00%** **0%**

VSBE

BID RESULTS **BID AMOUNT (\$)** **% VARIANCE TO EE**

BID PROTEST YES ☐ NO ☒

Applied Technology Services **\$308,763.35** **-3.5%**
En-Net Services, LLC **\$310,521.55** **-3.0%**
Digital Information Services **\$305,858.95** **-4.4%**

TAB 4

VERBAL

TAB 5



Maryland Transportation Authority

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
James F. Ports, Jr., Chairman

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
FROM: Director of Treasury & Debt Allen W. Garman
SUBJECT: Investment Strategy and Benchmarks
DATE: November 17, 2022

PURPOSE OF MEMORANDUM

- Quarterly update on investment strategy and benchmarks.
- No changes in strategy or benchmarks are recommended.
- Seek approval for a continuation of the investment strategies and benchmarks for the current quarter.

This item was discussed in greater detail at the November 10, 2022 Finance Committee meeting and the Committee Members support a continuation of the current investment strategies for all accounts. The longer duration strategies employed in certain reserves generate higher return volatility with expected higher average annual returns over multiyear periods.

SUMMARY

- For the trailing twelve-month period ended September 30, 2022, investments conformed to Investment Policy limitations.
- Portfolio structuring by account adhered to Board approved strategy and should remain consistent, despite short-term return volatility associated with the rising interest rate environment.

INVESTMENT STRATEGY

The Trust Agreement and Investment Policy prescribe a Matched Funding investment strategy for specific purpose accounts including Operating, Debt Service, and Capital/Construction.

Longer term strategies are permitted by the Trust Agreement for certain reserves that do not have cash flow needs. The Investment Policy's investment objectives include longer-term total return

considerations for reserves. Given that the unencumbered cash balance will be held long-term, a long-term approach is prudent and supported by the Finance Committee.

The agency employs either a Matched Funding or Total Return Duration Targeted approach for certain categories of accounts.

- Of the \$820 million portfolio at the end of September, \$477 million of Match Funded accounts are invested in short-term securities with maturities of less than one year that precede or coincide with projected outflows. (Capital, Operating, Debt Service)
- The remaining \$343 million is managed for Total Return, representing long-term unrestricted reserves held in the General and M&O Reserve accounts.
 - Unrestricted reserves are managed for Total Return, with consideration of the volatility/return tradeoff associated with longer-term structures.
 - Longer duration portfolios benefit from higher average annual returns over multiyear periods and exhibit greater return volatility relative to shorter-term maturity structures.
 - Duration Targeted portfolios maintain a consistent structure and management does not attempt to time market rate changes.

The General account is benchmarked to a composite index of 1-5-year bullet agency indices. Investment maturities are generally staggered from three-months to five-years, with an effective duration target of approximately 3.0.

The M&O Reserve is benchmarked to a composite of 1-13-year Treasury Strip indices that approximates effective duration of a laddered portfolio of 6-month to 15-year securities. The 7.5-year average maturity structure has an associated effective duration of approximately 7.0.

The General account strategy has not changed in many years and the smaller M&O Reserve's strategy has been consistent since 2020.

RECOMMENDATION

- Approve a continuation of the investment strategies and benchmarks for the current quarter.

TAB 6



Maryland Transportation Authority

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
James F. Ports, Jr., Chairman

Board Members:

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
FROM: Director of Finance Chantelle Green
SUBJECT: Traffic and Revenue Forecast Update
DATE: November 17, 2022

PURPOSE OF MEMORANDUM

To brief the Maryland Transportation Authority (MDTA) Board on the annual update to the Traffic and Revenue (T&R) forecasts for all facilities.

SUMMARY

Each fall, an update to the ten-year traffic and revenue forecast is prepared by independent consultants. The MDTA selected CDM Smith through a competitive process to provide the T&R forecast. The forecast is built on historical data from the MDTA's facilities and national, regional, and State socioeconomic data, such as population, employment, unemployment, real income per capita, real gross domestic product, inflation, and fuel prices. As noted in Table 4-1 of the T&R Report, the forecast also accounts for, among other things, anticipated construction projects, the backlog of unprocessed *E-ZPass* and video toll transactions, COVID-19 impacts, new vehicle classifications, and the Customer Assistance Plan.

ATTACHMENTS

- FY 2023 T&R Forecast Update Presentation
- MDTA FY 2023 Traffic and Toll Revenue Forecast Update, November 2022, prepared by CDM Smith



**Maryland
Transportation
Authority**

FY 2023 T&R FORECAST UPDATE

NOVEMBER 2022

TRAFFIC & REVENUE FORECAST

Summary

- Investment grade forecast updated annually in October by T&R consultants
- Current forecast totals \$4.47B (FY 2023-2028), down \$31M or 1% from November 2021
 - Total revenues decline in FY 2023 due to lingering COVID-19 impacts and Customer Assistance Plan.



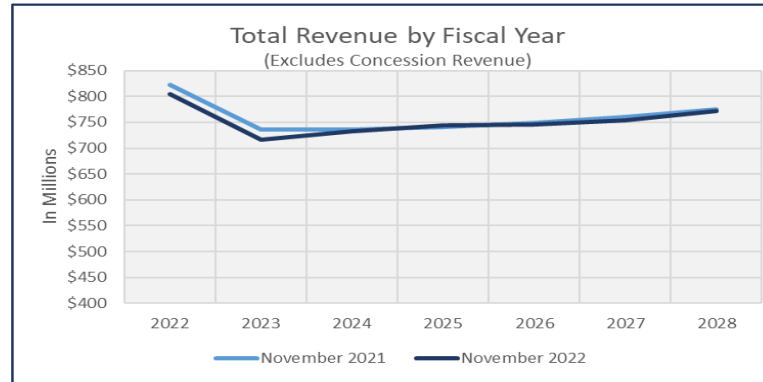
Key Forecast Assumptions

- Slightly more negative COVID-19 impacts assumed for certain facilities based on recent trends
 - ICC, I-95 ETLs, and passenger cars on non-harbor crossing facilities
- Continued processing of backlogged *E-ZPass*® and video toll transactions in FY 2023
 - Lower than normal video payment rate assumed due to the age of the transactions
- NOTD collection rates assumed to return to historical averages following the elimination of the Customer Assistance Plan and NOTD backlog
- No civil penalty collections assumed on NOTDs issued prior to FY 2023 due to the Customer Assistance Plan
- 3G enhancements
 - New vehicle classifications assumed to go into effect in late FY 2023

TRAFFIC & REVENUE FORECAST - REVENUE

Fiscal Year	November 2021	November 2022	Nov. 2021 to Nov. 2022
2022	\$ 822.9	\$ 804.7	\$ (18.2)
2023	\$ 736.1	\$ 716.6	\$ (19.5)
2024	\$ 735.7	\$ 732.8	\$ (2.9)
2025	\$ 740.6	\$ 744.1	\$ 3.5
2026	\$ 749.2	\$ 746.3	\$ (2.9)
2027	\$ 761.3	\$ 753.5	\$ (7.8)
2028	\$ 774.4	\$ 772.3	\$ (2.1)
Total	\$ 5,320.2	\$ 5,270.3	\$ (49.9)

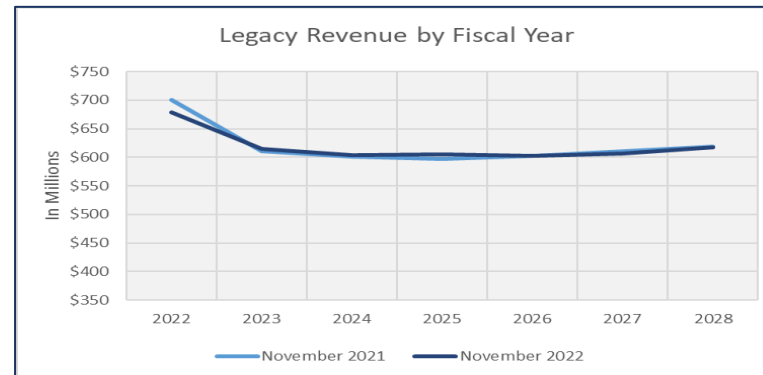
In-lane & Administrative Toll Revenue All Facilities



- November 2021 Forecast:
 - \$134M↑
- November 2022 Forecast:
 - Reduced FY 2023 revenues resulting from the Customer Assistance Plan
 - Lingering impacts of COVID-19 on congestion managed facilities
 - Traffic diversion due to construction
 - Total revenue reduction: \$50↓

Fiscal Year	November 2021	November 2022	Nov. 2021 to Nov. 2022
2022	\$ 700.3	\$ 679.0	\$ (21.30)
2023	\$ 610.0	\$ 614.3	\$ 4.29
2024	\$ 600.6	\$ 603.6	\$ 2.98
2025	\$ 597.5	\$ 605.9	\$ 8.41
2026	\$ 602.4	\$ 602.1	\$ (0.34)
2027	\$ 610.4	\$ 606.0	\$ (4.37)
2028	\$ 618.3	\$ 617.0	\$ (1.26)
Total	\$ 4,339.5	\$ 4,327.9	\$ (11.6)

In-lane Toll Revenue Legacy Facilities

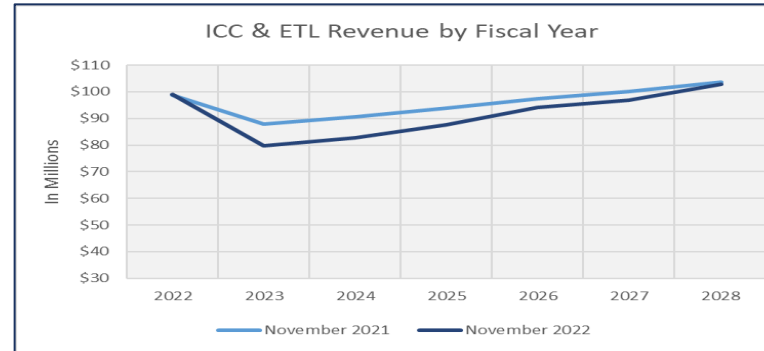


- November 2021 Forecast:
 - \$114M↑
- November 2022 Forecast:
 - Passenger vehicle revenue impacted by near-term processing of NOTD backlog and construction impacts on the FSK & BHT facilities
 - Commercial vehicle overperformance expected to taper off
 - Total revenue reduction: \$12M↓

TRAFFIC & REVENUE FORECAST – REVENUE (CONTINUED)

Fiscal Year	November 2021	November 2022	Nov. 2021 to Nov. 2022
2022	\$ 98.8	\$ 99.0	\$ 0.19
2023	\$ 87.9	\$ 79.7	\$ (8.22)
2024	\$ 90.7	\$ 82.8	\$ (7.92)
2025	\$ 94.0	\$ 87.6	\$ (6.39)
2026	\$ 97.4	\$ 94.3	\$ (3.14)
2027	\$ 100.1	\$ 96.9	\$ (3.19)
2028	\$ 103.7	\$ 102.8	\$ (0.89)
Total	\$ 672.6	\$ 643.0	\$ (29.6)

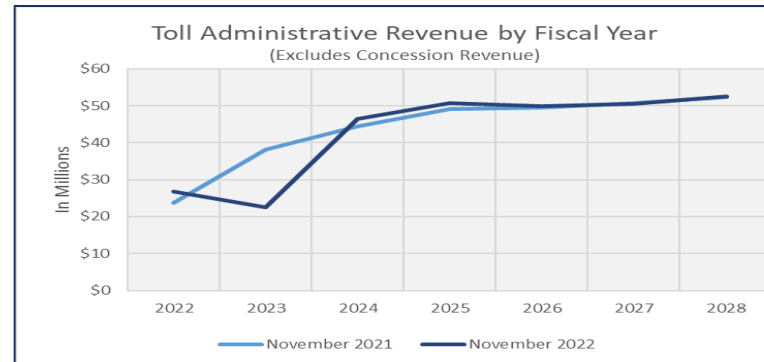
In-lane Toll Revenue ICC & ETL Facilities



- November 2021 Forecast
 - \$4M↓
- November 2022 Forecast:
 - Revenues reduced due to lingering impacts of COVID-19
 - Slight revenue growth expected on I-95 ETL beginning in FY 2026
 - Total revenue reduction: \$30M↓

Fiscal Year	November 2021	November 2022	Nov. 2021 to Nov. 2022
2022	\$ 23.8	\$ 26.7	\$ 2.9
2023	\$ 38.2	\$ 22.6	\$ (15.6)
2024	\$ 44.4	\$ 46.4	\$ 2.0
2025	\$ 49.1	\$ 50.6	\$ 1.5
2026	\$ 49.4	\$ 50.0	\$ 0.6
2027	\$ 50.8	\$ 50.6	\$ (0.2)
2028	\$ 52.4	\$ 52.5	\$ 0.1
Total	\$ 308.1	\$ 299.4	\$ (8.7)

Administrative Toll Revenue

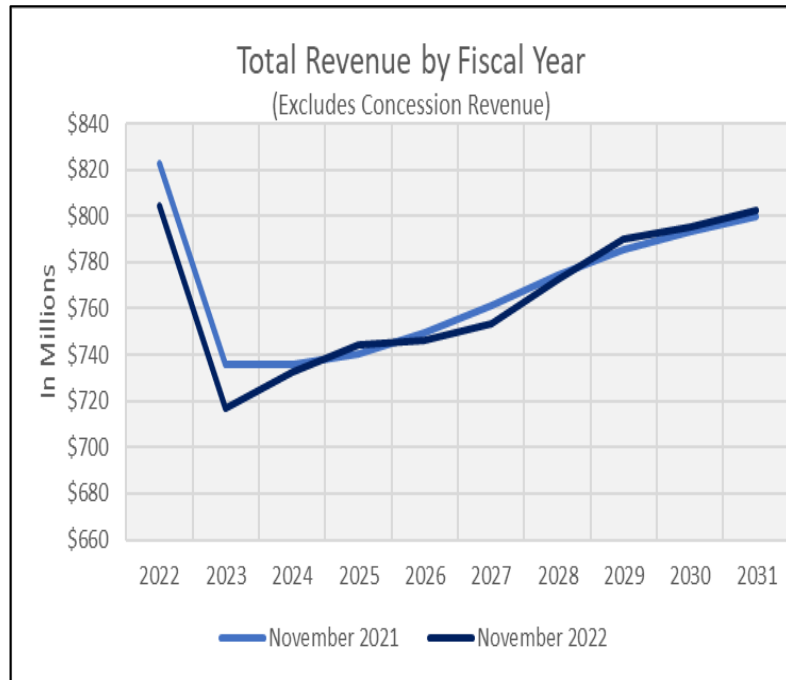


- November 2021
 - \$25M↑
- November 2022 Forecast:
 - Reduced FY 2023 revenues resulting from the Customer Assistance Plan
 - Projected revenue in remaining years of forecast is slightly higher due to higher transactions
 - Total revenue reduction: \$9M↓

TRAFFIC & REVENUE FORECAST – FUTURE OUTLOOK

MDTA Official Traffic & Revenue Forecasts

Fiscal Year	November 2021 Forecast	November 2022 Forecast	\$ Change	% Change
\$ in millions				
2022	\$ 822.9	\$ 804.7	\$ (18.2)	-2.2%
2023	\$ 736.1	\$ 716.6	\$ (19.5)	-2.6%
2024	\$ 735.7	\$ 732.8	\$ (2.9)	-0.4%
2025	\$ 740.6	\$ 744.1	\$ 3.5	0.5%
2026	\$ 749.2	\$ 746.3	\$ (2.9)	-0.4%
2027	\$ 761.3	\$ 753.5	\$ (7.8)	-1.0%
2028	\$ 774.4	\$ 772.3	\$ (2.1)	-0.3%
2029	\$ 785.3	\$ 789.9	\$ 4.6	0.6%
2030	\$ 793.3	\$ 795.1	\$ 1.8	0.2%
2031	\$ 800.1	\$ 802.3	\$ 2.2	0.3%
Total	\$ 7,698.9	\$ 7,657.6	\$ (41.3)	-0.5%



- Decline in revenue compared to November 2021 T&R Forecast
 - \$41M↓
- Some uncertainty remains
 - Commuter habits (teleworking)
 - Economic conditions

Maryland Transportation Authority FY 2023 Traffic and Toll Revenue Forecast Update



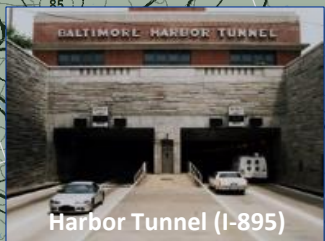
Kennedy Highway (I-95)



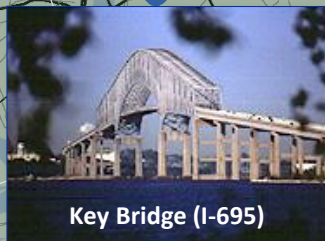
Hatem Bridge (US 40)



Fort McHenry Tunnel (I-95)



Harbor Tunnel (I-895)



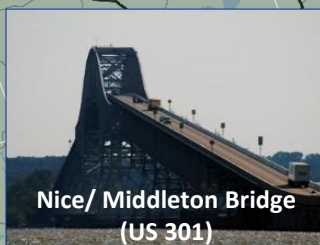
Key Bridge (I-695)



Intercounty Connector (ICC)



I-95 Express Toll Lanes (ETL)



Nice/ Middleton Bridge
(US 301)



Bay Bridge (US 50/301)

FINAL REPORT
November 2, 2022



Maryland
Transportation
Authority

**CDM
Smith**

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Chapter 1

Introduction

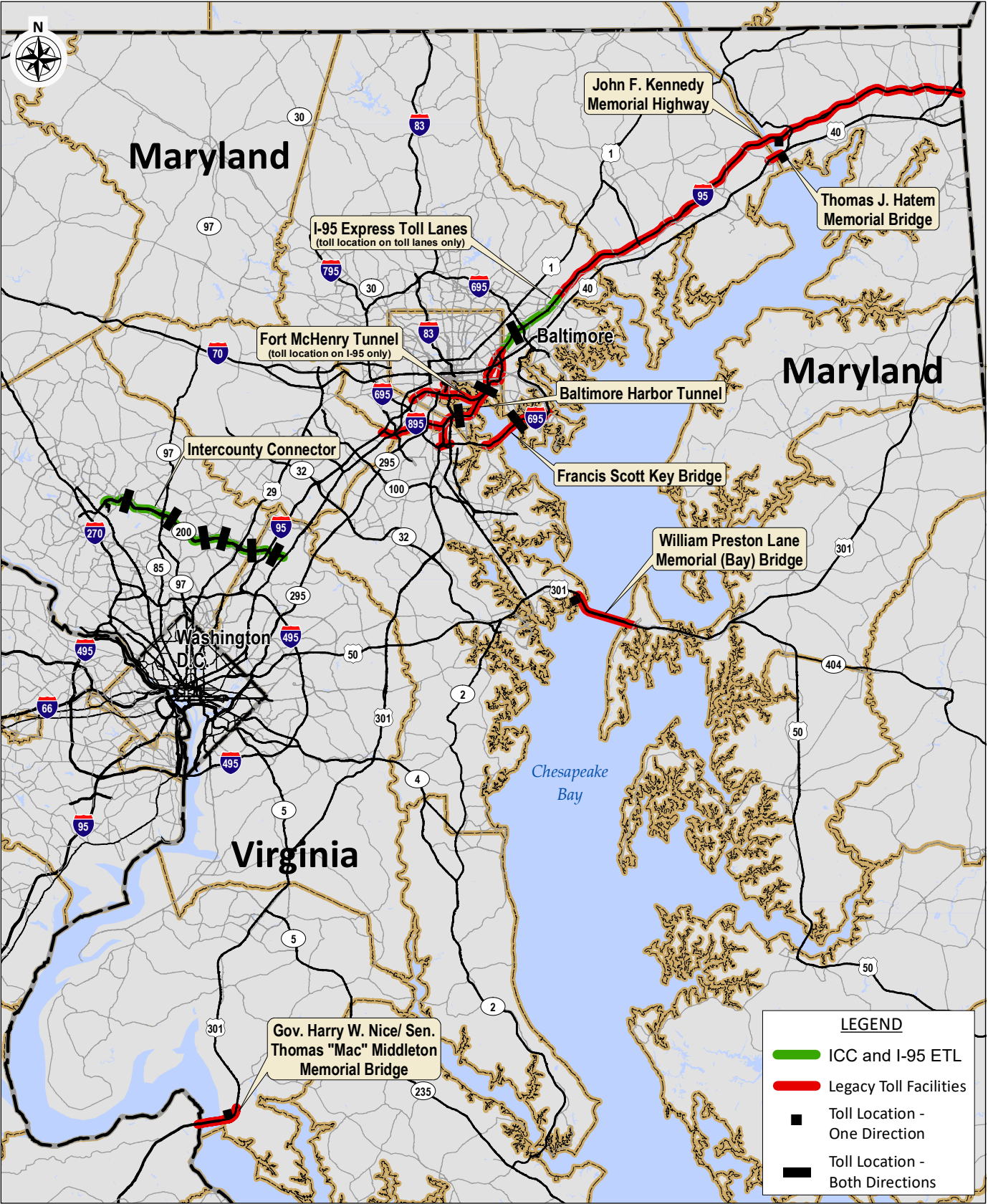
This letter report includes ten-year forecasts through FY 2032 for the seven “Legacy” toll facilities operated by MDTA, for the Intercounty Connector (ICC), and for the I-95 Express Toll Lanes (ETLs). It summarizes the study analysis, including a presentation of historical traffic and revenue trends, relevant socioeconomic conditions and forecasts, and the ten-year forecast results.

1.1 System Description

The nine facilities operated by MDTA are listed below. Collectively, the first seven facilities in the list below are referred to as the Legacy System.

- Thomas J. Hatem Memorial Bridge (Hatem Bridge, TJH)
- John F. Kennedy Memorial Highway, excluding the I-95 Express Toll Lanes (Kennedy Highway, JFK)
- Baltimore Harbor Tunnel (Harbor Tunnel, BHT)
- Fort McHenry Tunnel (Fort McHenry Tunnel, FMT)
- Francis Scott Key Bridge (Key Bridge, FSK)
- William Preston Lane Jr. Memorial Bridge (Bay Bridge, WPL)
- Governor Harry W. Nice Memorial/Senator Thomas “Mac” Middleton Bridge (Nice/Middleton Bridge, HWN)
- Intercounty Connector (ICC/MD 200)
- I-95 Express Toll Lanes (I-95 ETLs)

Figure 1-1 shows the locations of the MDTA Legacy system, ICC, and I-95 ETLs toll facilities and toll gantries in a regional context. As can be implied by the geographic distribution of the different facilities, the MDTA system serves a variety of travel purposes within the regional transportation system and consequently has a diverse mix of traffic classes and payment types.



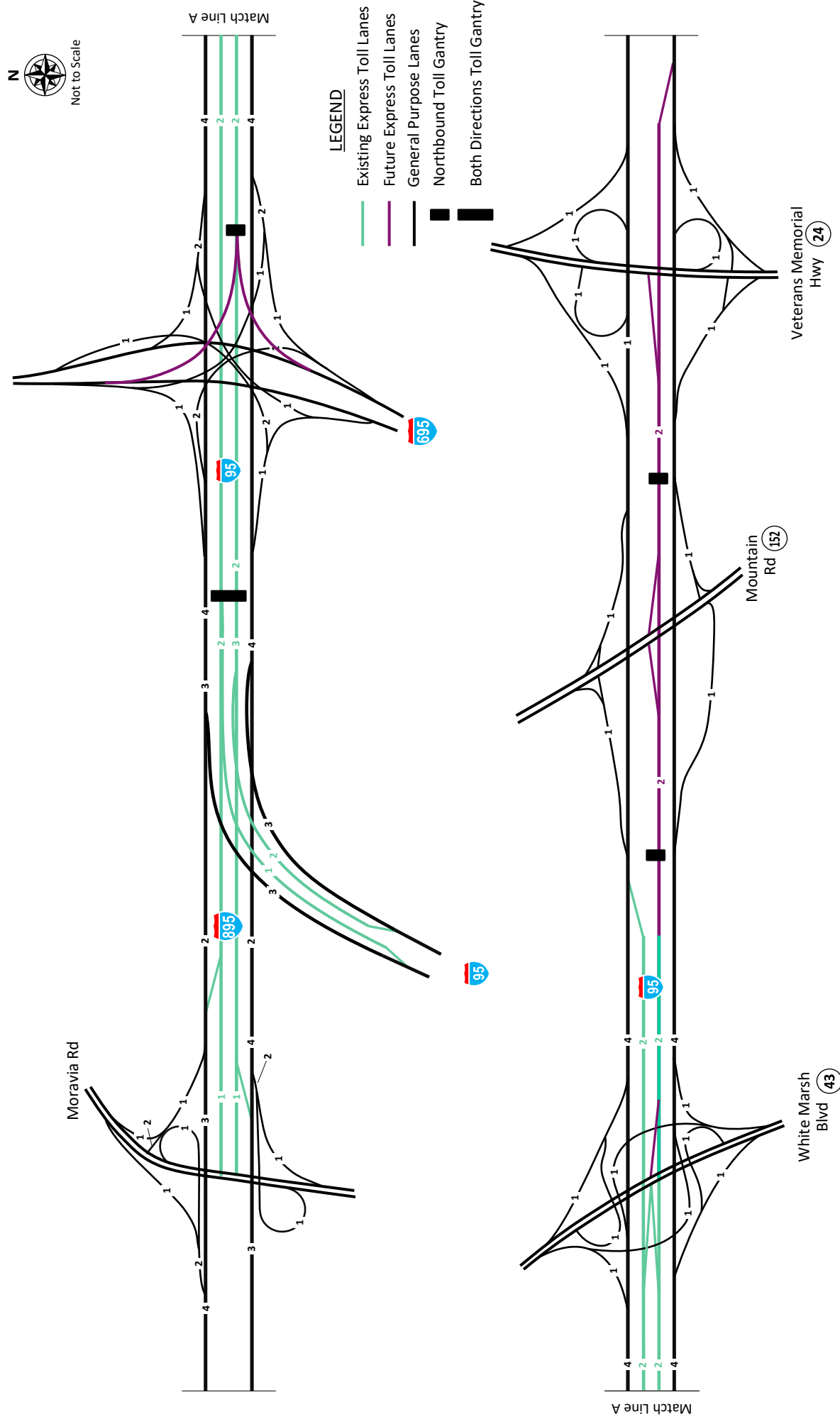
X:\TFT Group\Projects\MD Read Only (Moved to ProjectWise)\MD 236880 MDTA Task 24 - 2020 Legacy T&R Update\Graphics\ArcMAP\Legacy Facility Location Map - Fig 1-1_2020.mxd \ 5-20-20

In the north, the Hatem Bridge and the Kennedy Highway form two parallel crossings of the Susquehanna River. The Hatem Bridge carries US 40 over the river and is the oldest of the MDTA's facilities, having been open to traffic since August 1940. The existing structure replaced an older bridge that first opened in 1910. The John F. Kennedy Memorial Highway is a 50-mile segment of I-95 that was opened in November 1963. It currently has one mainline toll plaza located just east of the Susquehanna River. The I-95 ETLs are a separate eight-mile toll facility on the Kennedy Highway between I-895 and MD 43 in Northeast Baltimore. The facility, which opened in December 2014, includes two express toll lanes in each direction in between the general purpose lanes on this segment of I-95. A northern extension of only the northbound I-95 ETL facility is planned to open in phases within the forecasting horizon of this report. The assumed opening dates of this extension are included in the assumptions in Chapter 4. **Figure 1-2** shows the assumed access and tolling points on the I-95 ETL extension.

There are three alternative MDTA toll routes that cross the Baltimore Harbor in the center of the region: the Baltimore Harbor Tunnel (I-895), the Francis Scott Key Bridge (I-695), and the Fort McHenry Tunnel (I-95), which are collectively referred to as the Baltimore Harbor crossings. The oldest of the three Baltimore Harbor crossings is the Harbor Tunnel which opened in November 1957. The Key Bridge was built to alleviate congestion and delays at the Harbor Tunnel and was opened in March 1977. The newest of these facilities, the Fort McHenry Tunnel, is an eight-lane crossing that opened in November 1985.

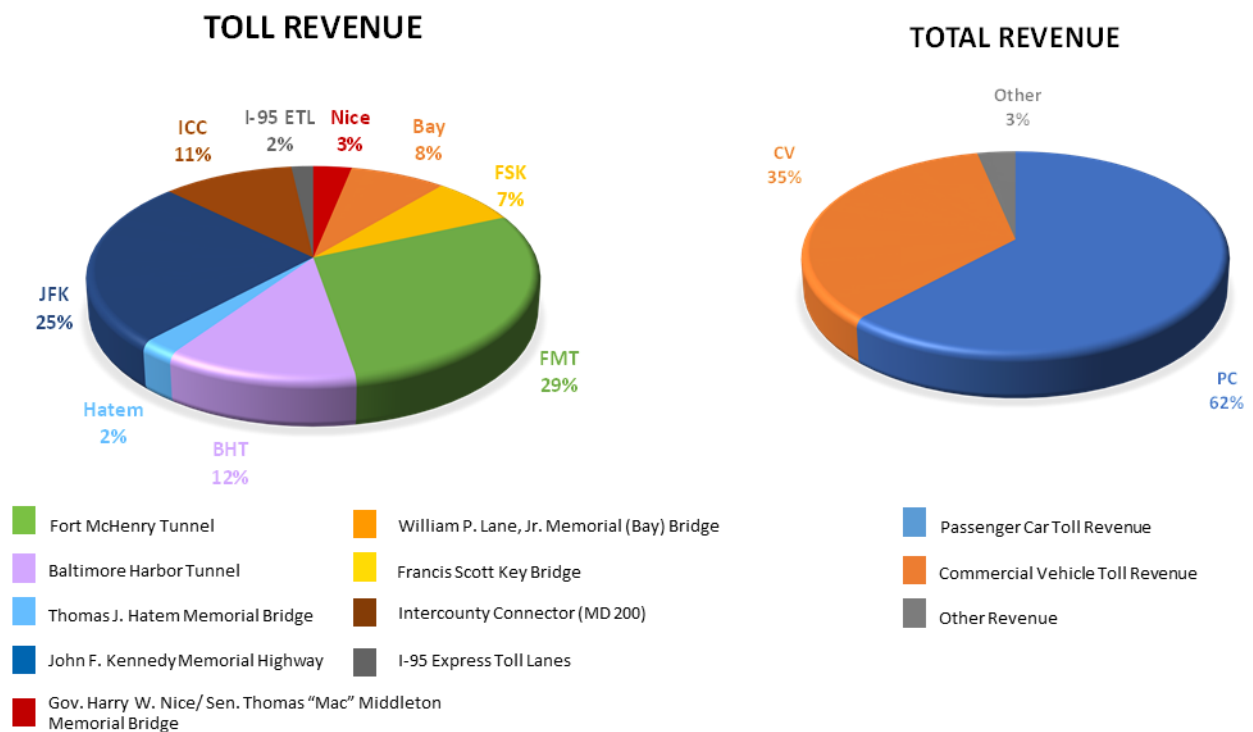
The ICC facility is in the northern Washington D.C. metro region and connects I-370 in the Gaithersburg area to I-95 and US 1 near Laurel. The ICC opened in phases. The initial segment between I-370 and MD 97 opened to traffic in February 2011 and began collecting tolls in March 2011. The segment from MD 97 to I-95 opened to traffic in November 2011 and began collecting tolls in December 2011, and the final segment between I-95 and US 1 opened and began collecting tolls in November 2014.

The southern region contains two facilities which carry US 301 to diverse destinations. The Governor Harry W. Nice Memorial/Senator Thomas "Mac" Middleton Bridge was opened in December 1940, connecting Maryland with Virginia, thereby allowing travelers making regional through-trips to bypass the Washington DC area. The William Preston Lane Jr. Memorial (Bay) Bridge was first opened to traffic in July 1952 and crosses the Chesapeake Bay. Twenty-one years later in June 1973, a parallel span carrying westbound traffic was opened, with the original span carrying eastbound traffic. A Tier 1 National Environmental Policy Act (NEPA) Study, called the Chesapeake Bay Crossing Study, was completed in the spring of this year. The study is considering alternatives to address congestion on the Bay Bridge. A Record of Decision (ROD) on the study and Final Environmental Impact Statement (Final EIS) were approved in April 2022 along with the Selected Corridor Alternative. Final project design and construction will follow final agency decisions based on completion of Tier 2 NEPA Study documents. Currently, there is no timetable for construction of a new crossing.



For context in this letter report, **Figure 1-3** shows the share of MDTA toll revenue by facility and total revenue by type for the most recent full fiscal year. As shown, nearly three quarters of toll revenue is from the Kennedy Highway, Fort McHenry Tunnel, Harbor Tunnel, and Key Bridge, which make up the I-95 corridor and parallel Interstate crossings near downtown Baltimore. Total revenue includes about 35 percent commercial vehicle toll revenue, about 62 percent passenger car toll revenue, and about 3 percent other revenue. Other revenue includes a combination of revenue collected and revenue deductions from unused Commuter Plan and Shoppers Plan trips, transponder fees and sales, the Hatem Bridge E-ZPass program, violation recovery (civil penalties), and commercial vehicle fees and discounts (post-usage discount, high frequency discount, and over-sized permit fees). The shares of revenue for FY 2022 were atypical compared to previous years due to the temporary business rule changes and ongoing processing of backlogged video invoices.

Figure 1-3
FY 2022 MDTA Share of Toll Revenue by Facility and Total Revenue by Type



1.2 Toll Rate and Civil Penalty Structure

1.2.1 Standard Toll Rates

Table 1-1 provides the standard Legacy system toll rates and toll collection direction. Toll rates vary by facility, method of payment, and vehicle class. The toll rates are grouped into three categories: Maryland E-ZPass, base toll rates which includes out-of-state E-ZPass and the pay-by-plate payment method, and video payment. Pay-by-Plate was introduced as another payment option for customers on April 29, 2021, which allows customers to pre-register their vehicle's license plate for video payment and receive the prior cash toll rate. A discount for early payment

of video tolls was also introduced on April 29, 2021. This allows customers to receive a 15 percent discount (up to \$5.00) when they pay their video tolls before an invoice is mailed. Maryland E-ZPass toll rates apply to drivers who register for an E-ZPass account and receive a transponder from MDTA. These customers receive a discount compared to the base toll rate customers and can also enroll in discounts like the shopper and commuter rates and programs further described in **Table 1-2**. The base toll rate applies to out-of-state registered E-ZPass and pay-by-plate customers. Video customers pay a 50 percent surcharge over the base toll rate. Cash was a payment option at five of the seven Legacy facilities up until March 17, 2020 when cashless collection was initiated as a safety precaution related to the COVID-19 pandemic. The Hattem Bridge and Key Bridge facilities had already been converted to all-electronic tolling in October 2019. Permanent cashless tolling on these facilities that offered a cash payment option before the pandemic was announced on August 6, 2020.

Table 1-1
Standard MDTA Legacy System Toll Rates and Toll Collection Direction

Class	Hattem Bridge (Eastbound)	Kennedy Highway (Eastbound)	Harbor Facilities: FMT, BHT, FSK (Both)	Bay Bridge (Eastbound)	Nice/ Middleton Bridge (Westbound)
Maryland E-ZPass Payment Type					
Commuter ¹	\$2.80	\$2.80	\$1.40	\$1.40	\$2.10
Shopper ¹	NA	NA	NA	\$2.00	NA
2-axle	\$6.00	\$6.00	\$3.00	\$2.50	\$5.40
3-axle	\$11.20	\$16.00	\$8.00	\$8.00	\$12.00
4-axle	\$16.80	\$24.00	\$12.00	\$12.00	\$18.00
5-axle	\$48.00	\$48.00	\$24.00	\$24.00	\$36.00
6-axle+	\$60.00	\$60.00	\$30.00	\$30.00	\$45.00
Base Toll Rates: Other E-ZPass Payment Type and Pay-By-Plate Payment Type²					
2-axle	\$8.00	\$8.00	\$4.00	\$4.00	\$6.00
3-axle	\$16.00	\$16.00	\$8.00	\$8.00	\$12.00
4-axle	\$24.00	\$24.00	\$12.00	\$12.00	\$18.00
5-axle	\$48.00	\$48.00	\$24.00	\$24.00	\$36.00
6-axle+	\$60.00	\$60.00	\$30.00	\$30.00	\$45.00
Video Payment Type³					
2-axle	\$12.00	\$12.00	\$6.00	\$6.00	\$9.00
3-axle	\$24.00	\$24.00	\$12.00	\$12.00	\$18.00
4-axle	\$36.00	\$36.00	\$18.00	\$18.00	\$27.00
5-axle	\$63.00	\$63.00	\$36.00	\$36.00	\$51.00
6-axle+	\$75.00	\$75.00	\$45.00	\$45.00	\$60.00

¹Commuter and shopper programs for 2-axle vehicles only. Rates shown are if all trips are used

²ITOLs (video images matched to existing E-ZPass accounts) are charged the base toll rate.

³Customers that pay their video toll before an invoice is mailed are eligible for a 15% discount

Table 1-2 provides a description of the other MDTA Legacy system discount toll rate programs available to Maryland E-ZPass customers. The programs available for two-axle vehicles aim to provide discounts for drivers who use the MDTA facilities frequently. Commuter plans are available for the Baltimore Harbor crossings, the Nice/Middleton Bridge, and the Bay Bridge. These plans allow customers to complete a set number of trips within a 45-day period at a fixed price on specific facilities. Specific details of the commuter programs are shown in **Table 1-2**. In addition to the commuter plan at the Bay Bridge, there is a shopper plan that allows drivers to take ten trips Sunday through Thursday for \$20 over a 90-day period on the Bay Bridge. The Hatem Bridge has two plans offered: Hatem Plan A and Hatem Plan B. Both plans provide unlimited trips for a flat annual fee of \$20 and vary slightly in account setup and associated fees.

Two discount plans are offered for commercial vehicles with five-or-more axles: the post usage discount and supplemental rebate plan. The post usage discount reimburses business accounts a percentage of monthly tolls in the range of 10 to 20 percent based on the toll amount accrued in a 30-day period. The supplemental rebate program provides a similar structure for individual accounts by providing a discount in the range of 10 to 20 percent for accounts that make more than 60 trips per month. Also listed in **Table 1-2** are the Baltimore Harbor Tunnel Childs Street ramp and Key Bridge Broening Highway Turnaround tolls which are a lower toll rate for three-or-more axle vehicles using specific ramps near the Harbor Tunnel and Key Bridge

Tolls on the ICC differ from the Legacy system in that they're assessed on particular interchange-to-interchange movements, as shown in **Table 1-3**. The ICC is a cashless facility with E-ZPass, Pay-by-Plate or video payment options. This table provides the two-axle E-ZPass toll rates, which vary from \$0.40 to \$3.86 depending on the length of the trip and time of day. Higher toll rates are assessed on weekdays during the Peak Periods, which are 6:00 to 9:00 AM and 3:00 to 7:00 PM, compared to the Overnight (11:00 PM to 5:00 AM) and Off-Peak (all other hours) time periods. Tolls differ on the weekends for the Overnight and Off-Peak periods. E-ZPass toll rates are higher for commercial and recreational (boat and camper) vehicles based on the number of axles. Unlike toll rates on the Legacy system, E-ZPass rates are the same on the ICC for customers holding their accounts through MDTA and through other agencies. All video toll customers pay a 50 percent surcharge over the E-ZPass rate with a minimum of \$1 and maximum of \$15 above the E-ZPass rates. Pay-by-Plate customers pay a rate in between the video toll and E-ZPass customers.

Table 1-2
Other MDTA Legacy System Discount Toll Rate Programs and Rates

Program	Details
Baltimore Region Commuter Discount Plan	For E-ZPass Maryland accounts holders driving two-axle vehicles . The Baltimore Regional Plan is \$70 for 50 trips on the Fort McHenry Tunnel, Harbor Tunnel, Key Bridge, Kennedy Highway, or Hatem Bridge. Two "trips" are deducted for each crossing of the Kennedy Highway and Hatem Bridge. Plans end after 45 days or when all of the trips are used, whichever comes first.
Nice Bridge Commuter Discount Plan	For E-ZPass Maryland accounts holders driving two-axle vehicles . The Nice bridge plan is \$52.50 and offers 25 trips. The plans ends after 45 days or when all of the trips are used, whichever comes first.
Bay Bridge Commuter Discount Plan	For E-ZPass Maryland accounts holders driving two-axle vehicles . The Bay Bridge Plan is \$35.00 and offers 25 trips. The plan ends after 45 days or when all of the trips are used, whichever comes first.
Bay Bridge Shopper Discount Plan	For E-ZPass Maryland accounts holders driving two-axle vehicles . The Bay Bridge Shopper plan is \$20.00 for ten two-axle trips that can be used Sunday through Thursday. The plan ends after 90 days or when all of the trips are used, whichever comes first.
Hatem Bridge Discount Plan A	An E-ZPass account with transponders valid only at the Hatem Bridge. This plan applies only to two-axle vehicles , and includes unlimited trips. This plan is subject to a flat annual fee of \$20.00. There are NO account fees, prepaid toll deposits or account statements.
Hatem Bridge Discount Plan B	This discount plan is attached to a normal Maryland E-ZPass account. This plan applies only to two-axle vehicles , and includes unlimited trips. This plan is subject to a flat annual fee of \$20.00. Account fees apply as with the normal Maryland E-ZPass account.
Post Usage Discount Plan	Business accounts operating five-or-more-axle vehicles qualify for an E-ZPass post-usage discount based on the tolls paid in every 30-day period, with a 10 percent discount offered for total monthly tolls of \$150.00 to \$1,999.99, 15 percent for total monthly tolls of \$2,000.00 to \$7,500.00 and 20 percent for total monthly tolls of over \$7,500.00.
Supplemental Rebate Plan	A supplemental rebate program is offered to five-or-more-axle vehicles with individual transponders making 60 or more trips per month. As of July 1, 2015, a 10 percent discount is offered for five- or more-axle vehicle transponders making 60-79 trips per month, 15 percent for 80-99 trips per month, and 20 percent for 100 or more per month.
Baltimore Harbor Childs Street Ramps and Key Bridge Broening Highway Turnaround Toll	Vehicles with a valid E-ZPass Maryland account and transponder will pay \$2 per axle for 3, 4, 5 and 6+ axle vehicles to use the I-895/Childs Street ramps at the Baltimore Harbor Tunnel and when making the Broening Highway Turnaround on the Key Bridge.

Table 1-3
Intercounty Connector Two-Axle E-ZPass Toll Rates by Movement and Time Period

Entrance	Time Period ¹	Exit						
		I-370 / Shady Grove Rd.	SR 97 / Georgia Ave.	SR 182 / Layhill Rd.	SR 650 / New Hampshire Ave.	US 29 / Briggs Cheney Rd.	I-95	Konterra Dr. / US 1
I-370; Shady Grove Rd.	Peak		\$1.24	\$1.74	\$2.37	\$2.92	\$3.52	\$3.86
	Off-Peak		\$0.96	\$1.35	\$1.83	\$2.26	\$2.72	\$2.98
	Overnight		\$0.40	\$0.56	\$0.75	\$0.93	\$1.12	\$1.23
SR 97 / Georgia Ave.	Peak	\$1.24		\$0.50	\$1.13	\$1.68	\$2.28	\$2.61
	Off-Peak	\$0.96		\$0.40	\$0.87	\$1.30	\$1.76	\$2.02
	Overnight	\$0.40		\$0.40	\$0.40	\$0.53	\$0.72	\$0.83
SR 182 / Layhill Rd.	Peak	\$1.74	\$0.50		\$0.62	\$1.18	\$1.78	\$2.11
	Off-Peak	\$1.35	\$0.40		\$0.48	\$0.91	\$1.37	\$1.63
	Overnight	\$0.56	\$0.40		\$0.40	\$0.40	\$0.56	\$0.67
SR 650 / New Hampshire Ave.	Peak	\$2.37	\$1.13	\$0.62		\$0.55	\$1.15	\$1.49
	Off-Peak	\$1.83	\$0.87	\$0.48		\$0.43	\$0.89	\$1.15
	Overnight	\$0.75	\$0.40	\$0.40		\$0.40	\$0.40	\$0.47
US 29 / Briggs Cheney Rd.	Peak	\$2.92	\$1.68	\$1.18	\$0.55		\$0.60	\$0.94
	Off-Peak	\$2.26	\$1.30	\$0.91	\$0.43		\$0.46	\$0.72
	Overnight	\$0.93	\$0.53	\$0.40	\$0.40		\$0.40	\$0.40
I-95	Peak	\$3.52	\$2.28	\$1.78	\$1.15	\$0.60		\$0.44
	Off-Peak	\$2.72	\$1.76	\$1.37	\$0.89	\$0.46		\$0.40
	Overnight	\$1.12	\$0.72	\$0.56	\$0.40	\$0.40		\$0.40
Konterra Dr. / US 1	Peak	\$3.86	\$2.61	\$2.11	\$1.49	\$0.94	\$0.44	
	Off-Peak	\$2.98	\$2.02	\$1.63	\$1.15	\$0.72	\$0.40	
	Overnight	\$1.23	\$0.83	\$0.67	\$0.47	\$0.40	\$0.40	

¹Time periods are:

Peak Period is defined as 6:00 to 9:00 AM and 4:00 to 7:00 PM on Weekdays (excluding federal holidays).

Off-Peak Period is defined as 5:00 to 6:00 AM, 9:00 AM to 4:00 PM, and 7:00 to 11:00 PM on Weekdays and 5:00 AM to 11:00 PM on Weekends and federal holidays.

Overnight is defined as 11:00 PM to 5:00 AM every day.

The I-95 ETLs are an express lane facility with a single tolling point in each direction. Similar to the ICC, toll rates vary by vehicle type and time period. It is a cashless facility with payment method options of E-ZPass, Pay-by-Plate, or video tolling. As shown previously in **Figure 1-2**, a northbound extension of the I-95 ETLs is also planned to open within the forecasting period.

Table 1-4 provides the toll rates by axle and payment type for the existing section from I-895 to MD 43, as well as the assumed toll rates for the two northbound extension tolling points, which extend through MD 24. Unlike toll rates on the Legacy system, E-ZPass rates are the same on the I-95 ETLs for customers holding their accounts through MDTA and through other agencies. Video toll customers pay a 50 percent surcharge over the E-ZPass rate with a minimum of \$1 and maximum of \$15 above the E-ZPass rates. Pay-by-plate customers pay a rate that is in between video toll and E-ZPass customers.

Table 1-4
I-95 Express Toll Lane Toll Rates

Class	Existing Section (I-895 to MD 43)			Northbound Extension Phase 1 (MD 43 to MD 152)			Northbound Extension Phase 2 (MD 152 to MD 24)		
	Peak	Off-Peak	Overnight	Peak	Off-Peak	Overnight	Peak	Off-Peak	Overnight
E-ZPass Payment Type									
2-axle	\$1.54	\$1.19	\$0.49	\$1.54	\$1.19	\$0.49	\$0.66	\$0.51	\$0.21
3-axle	\$3.08	\$2.38	\$0.98	\$3.08	\$2.38	\$0.98	\$1.32	\$1.02	\$0.42
4-axle	\$4.65	\$3.57	\$1.47	\$4.65	\$3.57	\$1.47	\$1.99	\$1.53	\$0.63
5-axle	\$9.24	\$7.14	\$2.94	\$9.24	\$7.14	\$2.94	\$3.96	\$3.06	\$1.26
6-axle+	\$11.55	\$8.93	\$3.68	\$11.55	\$8.93	\$3.68	\$4.95	\$3.83	\$1.58
Video Payment Type									
2-axle	\$2.54	\$2.19	\$1.49	\$2.54	\$2.19	\$1.49	\$1.09	\$0.94	\$0.64
3-axle	\$4.62	\$3.57	\$1.98	\$4.62	\$3.57	\$1.98	\$1.98	\$1.53	\$0.85
4-axle	\$6.93	\$5.36	\$2.47	\$6.93	\$5.36	\$2.47	\$2.97	\$2.30	\$1.06
5-axle	\$13.86	\$10.71	\$4.41	\$13.86	\$10.71	\$4.41	\$5.94	\$4.59	\$1.89
6-axle+	\$17.33	\$13.39	\$5.51	\$17.33	\$13.39	\$5.51	\$7.43	\$5.74	\$2.36

Time Periods:

Peak Period is defined as southbound from 6:00 to 9:00 AM Mon to Fri, northbound from 3:00 to 7:00 PM Mon to Fri, and both directions from 12:00 to 2:00 PM Sat and 2:00 to 5:00 PM Sun.

Off-Peak Period is defined as southbound from 5:00 to 6:00 AM/9:00 AM to 9:00 PM Mon to Fri, northbound from 5:00 AM to 3:00 PM/7:00 to 9:00 PM Mon to Fri, and both directions from 5:00 AM to 12:00 PM/2:00 to 9:00 PM Sat and 5:00 AM to 2:00 PM/5:00 to 9:00 PM Sunday.

Overnight is defined as 9:00 PM to 5:00 AM every day.

1.2.2 Temporary Business Rule Changes

On March 17, 2020 MDTA implemented systemwide cashless tolling until further notice. Most other larger toll agencies in the United States that had the capability to do so also converted to cashless (also called all-electronic) tolling around this time to prevent the potential spread of COVID-19 during exchanges of cash at toll booths. The MDTA cashless program was implemented by applying video tolling at cash toll rates at facilities where cash was normally accepted. The MDTA cashless tolling was applied to five facilities, the Kennedy Highway, Harbor Tunnel, Fort McHenry Tunnel, Bay Bridge, and Nice/Middleton Bridge. The other four MDTA facilities, the Hatem Bridge, Key Bridge, ICC, and I-95 ETLs, already operated with cashless tolling before the

pandemic. The Bay Bridge was already being planned to convert to cashless tolling before the pandemic. This facility officially converted to permanent cashless tolling on May 12, 2020.

Permanent cashless tolling on all facilities was announced on August 6, 2020 to provide convenience for motorists, less engine idling for better fuel efficiency and reduced emissions, decreased congestion, and increased safety. However, cash toll rates for video customers were still charged on the Kennedy Highway, Harbor Tunnel, Fort McHenry Tunnel, Bay Bridge, and Nice/Middleton Bridge until January 1, 2021 when video toll rates were reinstated. Additionally, mailing of Notice of Toll Due (NOTD) video invoices was paused in March 2020 but was resumed in the fall of 2020. While most of these video invoices have since been mailed, not all invoices have been paid and collection on these transactions will continue through FY 2023. To assist customers having to pay these backlogged transactions, the MDTA board approved a customer assistance plan on February 24th, 2022 which was effective immediately and will terminate on November 30th, 2022. This plan included a civil penalty waiver grace period and ceased referring toll bills to the Central Collection Unit (CCU) and MDOT Motor Vehicle Administration (MDOT MVA) temporarily.

1.2.3 Upcoming Toll Rate Changes

New vehicle class toll rate categories are planned that include lower toll rates. These new classes are motorcycles and certain three and four-axle vehicles, specifically “light” vehicles towing one and two-axle trailers such as those towing watercraft or landscaping equipment. Motorcycles will pay a 50 percent lower toll than current two-axle rates. Three and four-axle light vehicles will pay 25 and 17 percent, respectively, lower toll than current three and four-axle rates. The assumed implementation schedule for the new toll rates is provided in the assumptions in Chapter 4.

Except for the changes listed in the previous paragraph, no other future toll rate changes were assumed in this MDTA system forecast for the forecasting period through FY 2032.

1.2.4 Civil Penalties

Due to the customer assistance plan discussed in 1.2.2, it is assumed in the forecast that civil penalties will not be assessed on unpaid video invoices until after the termination of the plan. Assessment of the \$25 civil penalty will resume beginning December 1st, 2022 for all unpaid video transactions, including those from video invoices issued prior to the expiration of the customer assistance plan.

1.3 Report Structure

Chapter 2, Historical Traffic and Revenue Trends, provides a summary of historical trends and variations of traffic and revenue on the Legacy bridges, tunnels, and highways operated by the MDTA, including recent trends due to the COVID-19 pandemic. Trends in different payment shares are also provided.

Chapter 3, Socioeconomic Review, provides a summary of the econometric modeling analysis that was performed as an input into this annual forecast update. This chapter documents how the modeling was performed and the output from the process.

Chapter 4, Forecasts by Facility, provides a summary of the underlying assumptions and methodology used in the traffic and revenue forecasting process. Also presented in this Chapter are the 10-year traffic and revenue forecasts by facility and vehicle class for each of the MDTA facilities, including forecasted other revenue.

Chapter 5, Total Forecast Results, summarizes the forecasts for the MDTA system.

Chapter 6, Forecast Comparisons, provides a comparison of the updated forecasts to previous forecasts for the MDTA facilities.

Chapter 2

Historical Trends

This chapter includes analysis of historical traffic, revenue, and payment type trends on the MDTA facilities. Analysis of traffic trends on other routes in Maryland is also provided for context. Recent historical data is especially important as an input to developing the updated forecast documented in this report.

2.1 Maryland Vehicle Miles Traveled

Vehicle miles traveled (VMT) trends were reviewed to better understand the general trends in traffic growth nationally and within Maryland. The Federal Highway Administration develops annual estimates of national and state-wide VMT by roadway type, which have been summarized in **Table 2-1** for years 2007 through 2021 for the United States (U.S.) and Maryland.

Total VMT growth trends for both Maryland and the U.S. have been generally similar during the Great Recession impacted years (2007 to 2009) and years following (2009 to 2019). In general, the trends indicate that total national and statewide Maryland VMT growth is similar. However, growth on Maryland's Interstate highways at 0.6 percent per annum has been much lower than the U.S. average of 1.5 percent per annum for the period between 2009 and 2019. Growth in the last decade on the Maryland interstate system is still occurring, albeit at a lower rate than the nation. The percent of total VMT occurring on Interstate routes has remained relatively constant throughout the past 13 years. Approximately 25 percent of national VMT and 30 percent of Maryland VMT are made on interstate routes, which account for 2.5 percent and 3.9 percent of all roads in the nation and Maryland, respectively. In 2020, due to travel restrictions and stay-at-home mandates from the COVID-19 pandemic, interstate VMT in the United States and Maryland declined by 13.1 and 19.1 percent, respectively. In 2021 interstate VMT increased by approximately 13 percent over 2020 levels in both the U.S. and Maryland. The U.S. interstate and total VMT in 2021 were still approximately one percent below pre-pandemic levels of 2019. Maryland interstate and total VMT recovered to 4.3 and 3.0 percent below 2019 levels.

These trends in VMT since 2007 are different from pre-2007 long-term historical trends (not shown on this table). Before the mid-2000s, VMT had been growing regionally and nationally by about 2 percent per year. In the years following the Great Recession VMT growth was about half of this, at 0.9 percent nationally and 0.8 percent in Maryland. These changes are indicative of changes in travel driven by underlying socioeconomic factors in Maryland and the U.S. Similar to the changes observed after the Great Recession, the potential for long-term changes in travel due to the ongoing COVID-19 pandemic will continue to be closely monitored.

Table 2-1
National and Statewide Trends in Vehicle Miles Traveled

Calendar Year	United States ⁽¹⁾					Maryland				
	Interstate			Total		Interstate			Total	
	VMТ (Millions)	Percent Change	Percent of Total	VMТ (Millions)	Percent Change	VMТ (Millions)	Percent Change	Percent of Total	VMТ (Millions)	Percent Change
2007	745,457	-	24.4	3,049,027	-	17,015	-	30.1	56,503	-
2008	725,078	(2.7)	24.2	2,992,705	(1.8)	16,710	(1.8)	30.4	55,023	(2.6)
2009	722,655	(0.3)	24.3	2,975,804	(0.6)	16,965	1.5	30.7	55,293	0.5
2010	729,015	0.9	24.4	2,985,854	0.3	17,040	0.4	30.4	56,126	1.5
2011	725,787	(0.4)	24.4	2,968,990	(0.6)	16,964	(0.4)	30.2	56,221	0.2
2012	735,915	1.4	24.6	2,988,021	0.6	17,054	0.5	30.2	56,475	0.5
2013	745,106	1.2	24.8	3,006,911	0.6	17,064	0.1	30.1	56,688	0.4
2014	756,374	1.5	24.9	3,040,220	1.1	17,057	(0.0)	30.2	56,432	(0.5)
2015	782,111	3.4	25.1	3,109,937	2.3	17,102	0.3	29.7	57,516	1.9
2016	810,264	3.6	25.4	3,188,972	2.5	17,584	2.8	29.7	59,137	2.8
2017	824,910	1.8	25.6	3,227,358	1.2	17,937	2.0	29.9	59,892	1.3
2018	833,803	1.1	25.6	3,255,347	0.9	17,932	(0.0)	30.1	59,629	(0.4)
2019	842,604	1.1	25.7	3,276,482	0.6	18,059	0.7	30.0	60,136	0.9
2020	732,078	(13.1)	25.1	2,917,383	(11.0)	14,604	(19.1)	28.9	50,592	(15.9)
2021	826,200	12.9	25.6	3,227,696	10.6	16,545	13.3	29.2	56,616	11.9
Average Annual Percent Change										
2007 to 2009		(1.5)			(1.2)		(0.1)			(1.1)
2009 to 2019		1.5			1.0		0.6			0.8
2019 to 2021		(1.0)			(0.7)		(4.3)			(3.0)
2007-2020 VMT Data source: Table VM-2, Highway Statistics 1994-2020, USDOT FHWA Office of Policy Information. 2021 VMT Data source: Monthly Travel Volume Trends Reports, USDOT FHWA Office of Policy Information. ⁽¹⁾ Includes Puerto Rico.										

2.2 MDTA Traffic and Revenue Trends

2.2.1 Collected Transactions and Revenue

This section provides a review of the historical collected toll transaction/trip trends and toll revenue trends for each of the seven MDTA Legacy facilities, I-95 Express Toll Lanes (ETLs), and the Intercounty Connector (ICC). Toll revenue is the revenue that is collected by transponder or by various forms of video payment (and formerly by in-lane cash payment) for payment of published toll rates. Other revenue includes a combination of revenue collected and revenue deductions from unused Commuter Plan and Shoppers Plan trips, transponder fees and sales, the Hatem Bridge E-ZPass® program, violation recovery (civil penalties), and commercial vehicle fees and discounts (post-usage discount, high frequency discount, and over-sized permit fees). The historical transaction/trip and revenue trends by facility for passenger cars, commercial vehicles and total traffic are presented by fiscal year in **Table 2-2**, **Table 2-3**, and **Table 2-4**, respectively. The historical transaction/trip and revenue trends for total vehicles by facility are graphically presented in **Figure 2-1**.

Table 2-2
MDTA Passenger Car Historic Collected Transactions and Toll Revenue

Fiscal Year	Hatem Bridge		Kennedy Highway		Harbor Tunnel		Fort McHenry Tunnel		Key Bridge		Bay Bridge		Nice/Middleton Bridge		ICC ⁽¹⁾		I-95 ETL ⁽¹⁾	
	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change
Passenger Car Transactions (in millions)																		
2007	5.286	-	12.874	-	24.891	-	40.945	-	10.970	-	12.409	-	3.112	-	-	-	-	-
2008	5.296	0.2	12.722	(1.2)	24.921	0.1	40.879	(0.2)	11.093	1.1	12.312	(0.8)	3.107	(0.2)	-	-	-	-
2009	4.942	(6.7)	12.794	0.6	24.795	(0.5)	39.851	(2.5)	10.601	(4.4)	11.902	(3.3)	3.097	(0.3)	-	-	-	-
2010	4.890	(1.1)	12.977	1.4	24.553	(1.0)	40.583	1.8	9.953	(6.1)	12.093	1.6	3.134	1.2	-	-	-	-
2011	4.961	1.4	13.565	4.5	25.397	3.4	42.704	5.2	10.587	6.4	12.608	4.3	3.181	1.5	-	-	-	-
2012	4.884	(1.5)	13.154	(3.0)	25.113	(1.1)	41.103	(3.7)	10.048	(5.1)	12.766	1.3	3.100	(2.5)	-	-	-	-
2013	4.391	(10.1)	12.912	(1.8)	23.414	(6.8)	40.116	(2.4)	9.982	(0.7)	11.865	(7.1)	3.071	(0.9)	-	-	-	-
2014	4.779	8.8	12.690	(1.7)	24.325	3.9	38.290	(4.6)	9.427	(5.6)	11.878	0.1	3.040	(1.0)	-	-	-	-
2015	5.064	6.0	13.022	2.6	26.517	9.0	38.353	0.2	9.632	2.2	12.008	1.1	3.095	1.8	-	-	-	-
2016	4.880	(3.6)	13.401	2.9	27.653	4.3	38.876	1.4	10.185	5.7	12.398	3.2	3.172	2.5	-	-	-	-
2017	4.893	0.3	13.745	2.6	26.974	(2.5)	41.381	6.4	10.257	0.7	12.692	2.4	3.209	1.2	31.758	-	8.614	-
2018	4.881	(0.2)	13.576	(1.2)	27.327	1.3	40.546	(2.0)	10.330	0.7	12.631	(0.5)	3.123	(2.7)	33.433	5.3	8.915	3.5
2019	4.869	(0.2)	13.316	(1.9)	20.254	(25.9)	43.955	8.4	11.674	13.0	12.706	0.6	3.104	(0.6)	35.231	5.4	9.331	4.7
2020	4.182	(14.1)	10.669	(19.9)	13.709	(32.3)	38.242	(13.0)	10.793	(7.5)	10.723	(15.6)	2.571	(17.2)	31.850	(9.6)	7.341	(21.3)
2021	2.868	(31.4)	7.287	(31.7)	11.489	(16.2)	25.709	(32.8)	7.490	(30.6)	7.799	(27.3)	1.591	(38.1)	10.947	(65.6)	4.840	(34.1)
2022	4.207	46.7	13.419	84.1	25.065	118.2	38.186	48.5	10.636	42.0	13.580	74.1	3.049	91.7	40.030	265.7	8.321	71.9
Passenger Car Revenue (in millions of dollars)																		
2007	1.119	-	58.915	-	29.926	-	56.924	-	10.805	-	24.652	-	7.154	-	-	-	-	-
2008	1.242	11.1	58.013	(1.5)	30.320	1.3	56.381	(1.0)	10.822	0.2	24.452	(0.8)	7.055	(1.4)	-	-	-	-
2009	1.255	1.0	58.467	0.8	30.840	1.7	55.224	(2.1)	10.512	(2.9)	23.740	(2.9)	7.020	(0.5)	-	-	-	-
2010	1.468	16.9	59.246	1.3	31.141	1.0	57.211	3.6	10.299	(2.0)	24.510	3.2	7.190	2.4	-	-	-	-
2011	1.622	10.5	59.906	1.1	31.856	2.3	58.288	1.9	10.658	3.5	25.105	2.4	7.233	0.6	-	-	-	-
2012	2.354	45.1	67.640	12.9	42.558	33.6	75.089	28.8	13.800	29.5	31.786	26.6	8.589	18.7	-	-	-	-
2013	3.993	69.6	73.602	8.8	46.871	10.1	87.559	16.6	16.450	19.2	36.113	13.6	9.577	11.5	-	-	-	-
2014	5.007	25.4	94.931	29.0	69.466	48.2	114.982	31.3	22.863	39.0	54.346	50.5	14.616	52.6	-	-	-	-
2015	5.113	2.1	97.301	2.5	77.033	10.9	115.294	0.3	24.330	6.4	55.630	2.4	15.198	4.0	-	-	-	-
2016	5.279	3.2	98.677	1.4	80.650	4.7	115.994	0.6	24.474	0.6	35.598	(36.0)	15.156	(0.3)	54.197	-	10.054	-
2017	5.619	6.5	101.363	2.7	80.207	(0.5)	124.262	7.1	25.478	4.1	36.562	2.7	15.419	1.7	58.795	8.5	10.765	7.1
2018	5.215	(7.2)	100.008	(1.3)	81.602	1.7	121.604	(2.1)	25.670	0.8	36.294	(0.7)	14.947	(3.1)	61.320	4.3	11.055	2.7
2019	5.298	1.6	97.883	(2.1)	61.575	(24.5)	132.376	8.9	29.335	14.3	36.714	1.2	14.897	(0.3)	62.688	2.2	11.529	4.3
2020	4.852	(8.4)	77.730	(20.6)	40.715	(33.9)	113.816	(14.0)	26.513	(9.6)	30.174	(17.8)	12.012	(19.4)	51.830	(17.3)	8.820	(23.5)
2021	3.377	(30.4)	52.666	(32.2)	32.941	(19.1)	74.337	(34.7)	18.388	(30.6)	20.418	(32.3)	7.279	(39.4)	18.781	(63.8)	5.873	(33.4)
2022	9.278	174.7	103.954	97.4	83.449	153.3	125.465	68.8	30.784	67.4	43.499	113.0	16.577	127.8	74.373	296.0	10.631	81.0

⁽¹⁾ Data for the ICC and I-95 ETL are presented beginning in FY 2017 for trips and FY 2016 for revenue due to vehicle class availability in data reporting. ICC transactions reported are trips.

Table 2-3
MDTA Commercial Vehicle Historic Collected Transactions and Toll Revenue

Fiscal Year	Hatem Bridge		Kennedy Highway		Harbor Tunnel		Fort McHenry Tunnel		Key Bridge		Bay Bridge		Nice/Middleton Bridge		ICC ⁽¹⁾		I-95 ETL ⁽¹⁾	
	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change
Commercial Vehicle Transactions (in millions)																		
2007	0.276	-	1.966	-	0.849	-	3.909	-	1.233	-	1.086	-	0.306	-	-	-	-	-
2008	0.260	(5.6)	1.930	(1.8)	0.850	0.1	3.950	1.1	1.250	1.3	1.058	(2.5)	0.284	(7.3)	-	-	-	-
2009	0.098	(62.1)	1.848	(4.2)	0.739	(13.1)	3.595	(9.0)	1.087	(13.0)	0.850	(19.7)	0.250	(12.0)	-	-	-	-
2010	0.103	4.9	1.773	(4.1)	0.672	(9.0)	3.480	(3.2)	1.006	(7.5)	0.901	6.0	0.220	(12.1)	-	-	-	-
2011	0.110	6.3	1.810	2.1	0.720	7.1	3.590	3.2	1.060	5.4	0.950	5.4	0.220	0.1	-	-	-	-
2012	0.150	36.6	1.670	(7.7)	0.637	(11.6)	3.420	(4.7)	1.000	(5.7)	0.900	(5.3)	0.190	(13.6)	-	-	-	-
2013	0.172	15.0	1.670	-	0.558	(12.3)	3.460	1.2	0.940	(6.0)	0.871	(3.2)	0.190	-	-	-	-	-
2014	0.169	(1.8)	1.687	1.0	0.568	1.6	3.586	3.6	0.993	5.6	0.881	1.1	0.203	7.0	-	-	-	-
2015	0.182	7.3	1.668	(1.1)	0.580	2.2	3.494	(2.6)	0.995	0.2	0.847	(3.8)	0.211	3.5	-	-	-	-
2016	0.210	15.6	1.762	5.7	0.633	9.1	3.763	7.7	1.010	1.5	0.874	3.2	0.209	(0.6)	-	-	-	-
2017	0.210	(0.2)	1.803	2.3	0.639	0.8	3.999	6.3	1.054	4.4	0.895	2.4	0.210	0.5	0.875	-	0.400	-
2018	0.205	(2.3)	1.875	4.0	0.685	7.3	4.174	4.4	1.096	3.9	0.887	(0.8)	0.203	(3.7)	0.968	10.6	0.478	19.5
2019	0.220	7.3	1.889	0.7	0.585	(14.6)	4.292	2.8	1.153	5.2	0.887	(0.1)	0.211	4.0	1.056	9.1	0.538	12.5
2020	0.212	(3.7)	1.830	(3.1)	0.459	(21.5)	4.055	(5.5)	1.142	(0.9)	0.824	(7.1)	0.183	(13.3)	1.096	3.8	0.448	(16.6)
2021	0.185	(12.8)	1.542	(15.8)	0.442	(3.7)	3.328	(17.9)	0.947	(17.1)	0.656	(20.3)	0.123	(32.5)	0.378	(65.5)	0.362	(19.3)
2022	0.268	45.2	2.229	44.6	0.793	79.3	4.888	46.9	1.354	43.0	0.928	41.4	0.252	104.1	1.431	278.4	0.679	87.8
Commercial Vehicle Revenue (in millions)																		
2007	2.699	-	35.704	-	5.183	-	27.761	-	8.437	-	9.741	-	3.277	-	-	-	-	-
2008	2.652	(1.7)	34.695	(2.8)	5.007	(3.4)	27.652	(0.4)	8.586	1.8	9.427	(3.2)	3.024	(7.7)	-	-	-	-
2009	0.811	(69.4)	36.671	5.7	4.770	(4.7)	27.746	0.3	8.051	(6.2)	8.770	(7.0)	2.750	(9.1)	-	-	-	-
2010	1.145	41.2	48.103	31.2	5.869	23.0	36.809	32.7	10.238	27.2	12.284	40.1	2.956	7.5	-	-	-	-
2011	1.197	4.5	47.484	(1.3)	5.995	2.1	37.029	0.6	10.117	(1.2)	12.512	1.9	2.916	(1.4)	-	-	-	-
2012	2.896	142.0	48.370	1.9	6.176	3.0	43.730	18.1	12.020	18.8	14.956	19.5	3.011	3.3	-	-	-	-
2013	3.972	37.2	51.104	5.7	6.203	0.5	51.125	16.9	13.170	9.6	17.263	15.4	3.588	19.1	-	-	-	-
2014	5.168	30.1	67.872	32.8	8.093	30.5	68.147	33.3	17.396	32.1	25.410	47.2	5.781	61.1	-	-	-	-
2015	6.076	17.6	69.234	2.0	8.505	5.1	70.486	3.4	18.645	7.2	25.529	0.5	6.214	7.5	-	-	-	-
2016	6.524	7.4	72.499	4.7	9.222	8.4	75.293	6.8	18.805	0.9	17.193	(32.7)	6.047	(2.7)	5.116	-	1.331	-
2017	6.468	(0.9)	74.448	2.7	9.254	0.3	79.920	6.1	19.464	3.5	17.399	1.2	6.046	(0.0)	5.522	7.9	1.713	28.7
2018	6.368	(1.6)	77.192	3.7	9.786	5.8	83.458	4.4	20.208	3.8	17.136	(94.9)	5.794	(4.2)	6.190	12.1	2.093	22.2
2019	6.874	8.0	78.103	1.2	8.690	(11.2)	85.073	1.9	21.196	4.9	17.030	(0.1)	6.072	4.8	6.627	7.1	2.392	14.3
2020	6.534	(5.0)	76.356	(2.2)	6.794	(21.8)	80.530	(5.3)	21.036	(0.8)	15.823	(7.1)	5.307	(12.6)	6.312	(4.8)	1.931	(19.3)
2021	5.806	(11.1)	64.566	(15.4)	6.906	1.6	67.193	(16.6)	17.360	(17.5)	12.625	(20.2)	3.532	(33.4)	2.532	(59.9)	1.880	(2.7)
2022	8.975	54.6	93.030	44.1	12.226	77.0	100.144	49.0	25.071	44.4	18.117	41.4	7.512	112.7	10.529	315.8	3.459	84.0

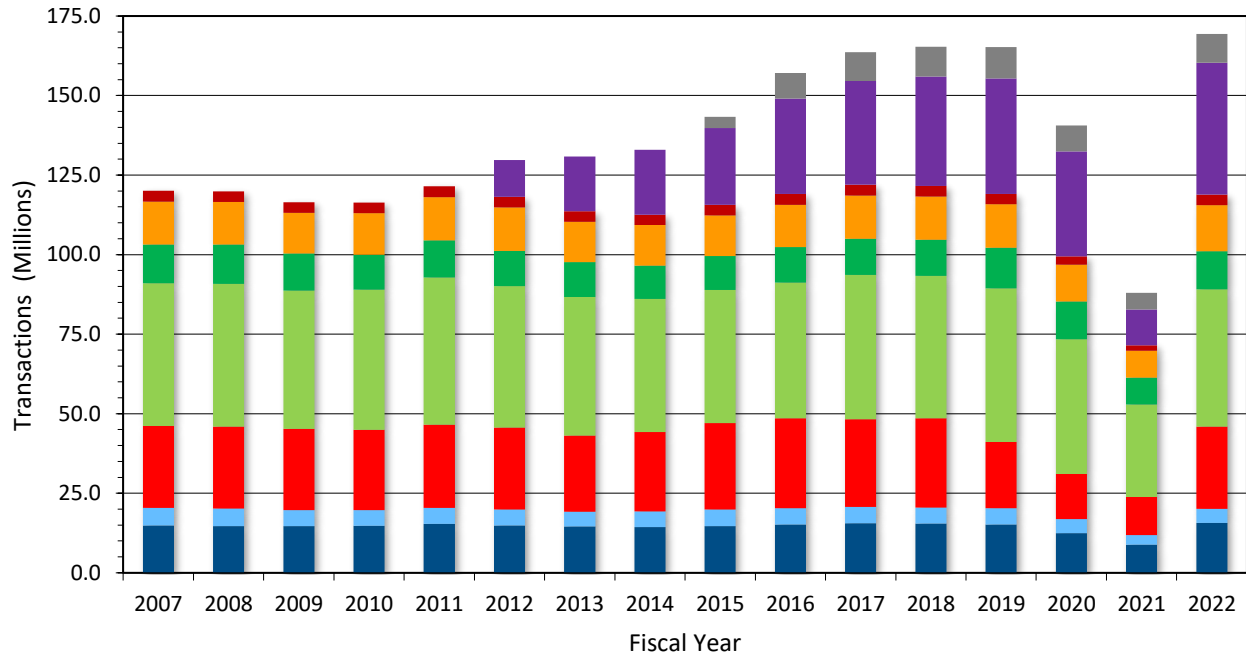
⁽¹⁾ Data for the ICC and I-95 ETL are presented beginning in FY 2017 for trips and FY 2016 for revenue due to vehicle class availability in data reporting. ICC transactions reported are trips.

Table 2-4
MDTA Total Traffic Historic Collected Transactions and Toll Revenue

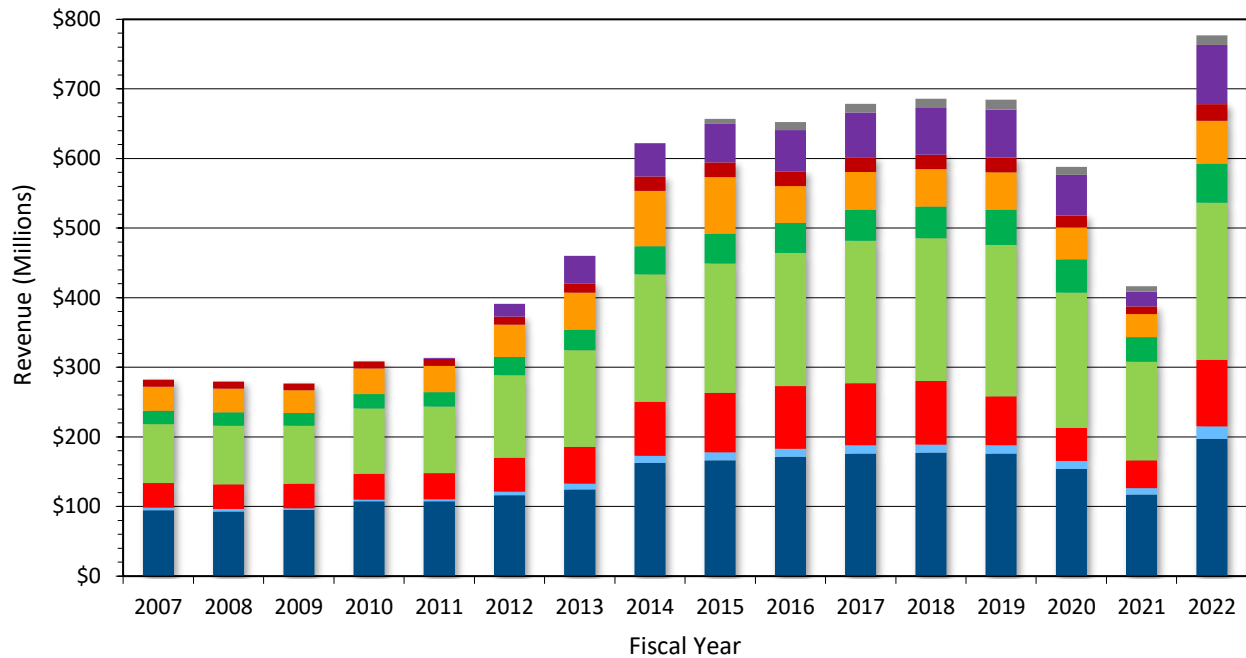
Fiscal Year	Hatem Bridge		Kennedy Highway		Harbor Tunnel		Fort McHenry Tunnel		Key Bridge		Bay Bridge		Nice/Middleton Bridge		ICC ⁽¹⁾		I-95 ETL	
	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change
Total Transactions (in millions)																		
2007	5.561	-	14.840	-	25.740	-	44.854	-	12.203	-	13.494	-	3.418	-	-	-	-	-
2008	5.556	(0.1)	14.652	(1.3)	25.771	0.1	44.829	(0.1)	12.343	1.1	13.370	(0.9)	3.391	(0.8)	-	-	-	-
2009	5.040	(9.3)	14.642	(0.1)	25.534	(0.9)	43.446	(3.1)	11.688	(5.3)	12.752	(4.6)	3.347	(1.3)	-	-	-	-
2010	4.993	(0.9)	14.750	0.7	25.226	(1.2)	44.063	1.4	10.959	(6.2)	12.994	1.9	3.354	0.2	-	-	-	-
2011	5.070	1.5	15.375	4.2	26.117	3.5	46.294	5.1	11.647	6.3	13.558	4.3	3.401	1.4	-	-	-	-
2012	5.034	(0.7)	14.824	(3.6)	25.750	(1.4)	44.523	(3.8)	11.048	(5.1)	13.666	0.8	3.290	(3.3)	11.562	-	-	-
2013	4.563	(9.4)	14.582	(1.6)	23.973	(6.9)	43.576	(2.1)	10.922	(1.1)	12.736	(6.8)	3.261	(0.9)	17.198	48.7	-	-
2014	4.948	8.4	14.377	(1.4)	24.893	3.8	41.875	(3.9)	10.419	(4.6)	12.759	0.2	3.243	(0.6)	20.476	19.1	-	-
2015	5.246	6.0	14.690	2.2	27.098	8.9	41.847	(0.1)	10.627	2.0	12.856	0.8	3.305	1.9	24.118	17.8	3.483	-
2016	5.090	(3.0)	15.163	3.2	28.287	4.4	42.639	1.9	11.195	5.3	13.272	3.2	3.381	2.3	29.975	24.3	8.048	131.0
2017	5.102	0.2	15.548	2.5	27.612	(2.4)	45.380	6.4	11.311	1.0	13.587	2.4	3.419	1.1	32.634	8.9	9.014	12.0
2018	5.086	(0.3)	15.451	(0.6)	28.012	1.4	44.720	(1.5)	11.425	1.0	13.518	(0.5)	3.325	(2.8)	34.401	5.4	9.393	4.2
2019	5.089	0.1	15.205	(1.6)	20.839	(25.6)	48.247	7.9	12.827	12.3	13.593	0.5	3.315	(0.3)	36.287	5.5	9.868	5.1
2020	4.394	(13.6)	12.499	(17.8)	14.168	(32.0)	42.297	(12.3)	11.935	(6.9)	11.547	(15.1)	2.753	(16.9)	32.946	(9.2)	7.789	(21.1)
2021	3.052	(30.5)	8.829	(29.4)	11.931	(15.8)	29.037	(31.3)	8.437	(29.3)	8.456	(26.8)	1.714	(37.8)	11.325	(65.6)	5.202	(33.2)
2022	4.475	46.6	15.648	77.2	25.858	116.7	43.074	48.3	11.990	42.1	14.508	71.6	3.301	92.6	41.461	266.1	9.000	73.0
Total Revenue (in millions of dollars)																		
2007	3.817	-	94.619	-	35.109	-	84.685	-	19.243	-	34.393	-	10.432	-	-	-	-	-
2008	3.894	2.0	92.707	(2.0)	35.328	0.6	84.032	(0.8)	19.408	0.9	33.879	(1.5)	10.079	(3.4)	-	-	-	-
2009	2.066	(46.9)	95.138	2.6	35.610	0.8	82.970	(1.3)	18.563	(4.4)	32.510	(4.0)	9.770	(3.1)	-	-	-	-
2010	2.613	26.5	107.349	12.8	37.010	3.9	94.020	13.3	20.537	10.6	36.794	13.2	10.146	3.8	-	-	-	-
2011	2.819	7.9	107.390	0.0	37.851	2.3	95.316	1.4	20.775	1.2	37.617	2.2	10.149	0.0	1.474	-	-	-
2012	5.250	86.2	116.010	8.0	48.734	28.8	118.819	24.7	25.820	24.3	46.742	24.3	11.601	14.3	18.063	1,125.4	-	-
2013	7.966	51.7	124.706	7.5	53.074	8.9	138.684	16.7	29.619	14.7	53.376	14.2	13.165	13.5	39.586	119.2	-	-
2014	10.174	27.7	162.803	30.5	77.559	46.1	183.130	32.0	40.260	35.9	79.756	49.4	20.397	54.9	48.029	21.3	-	-
2015	11.189	10.0	166.535	2.3	85.538	10.3	185.780	1.4	42.975	6.7	81.159	1.8	21.412	5.0	56.018	16.6	6.146	-
2016	11.803	5.5	171.176	2.8	89.872	5.1	191.287	3.0	43.279	0.7	52.791	(35.0)	21.203	(1.0)	59.312	5.9	11.385	85.3
2017	12.087	2.4	175.811	2.7	89.461	(0.5)	204.182	6.7	44.942	3.8	53.960	2.2	21.465	1.2	64.317	8.4	12.478	9.6
2018	11.582	(4.2)	177.199	0.8	91.388	2.2	205.063	0.4	45.878	2.1	53.429	(1.0)	20.741	(3.4)	67.511	5.0	13.148	5.4
2019	12.172	5.1	175.987	(0.7)	70.265	(23.1)	217.449	6.0	50.531	10.1	53.744	0.6	20.968	1.1	69.316	2.7	13.921	5.9
2020	11.386	(6.5)	154.086	(12.4)	47.509	(32.4)	194.346	(10.6)	47.549	(5.9)	45.997	(14.4)	17.319	(17.4)	58.142	(16.1)	10.751	(22.8)
2021	9.184	(19.3)	117.231	(23.9)	39.847	(16.1)	141.531	(27.2)	35.748	(24.8)	33.042	(28.2)	10.811	(37.6)	21.313	(63.3)	7.753	(27.9)
2022	18.253	98.8	196.984	68.0	95.675	140.1	225.610	59.4	55.855	56.2	61.615	86.5	24.089	122.8	84.903	298.4	14.090	81.7

⁽¹⁾ ICC transactions reported are trips.

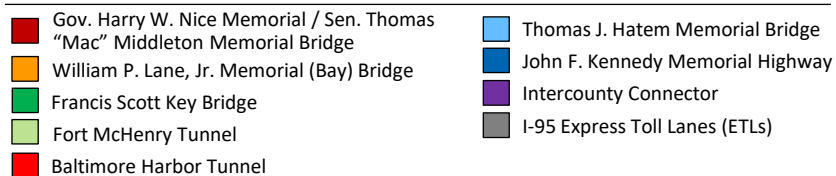
Collected Transactions



Collected Revenue



MDTA Toll Facilities



HISTORICAL COLLECTED TRANSACTIONS AND COLLECTED TOLL REVENUE BY FACILITY

Table 2-5 summarizes the average annual percent change in passenger car and commercial vehicle transactions and revenue trends by facility during the Great Recession years (FY 2007 to 2009) and post-recession years (FY 2009 to 2019) for the Legacy facilities based on the data provided in **Table 2-2** and **Table 2-3**. For all facilities, including the ICC and I-95 ETL, average annual percent change in passenger car and commercial vehicles transactions/trips and revenue are shown for the period from 2017 to 2019 due to data by vehicle class availability for the ICC and I-95 ETLs. FY 2019 to 2022 is shown for all facilities to show the period impacted by the COVID-19 pandemic, cashless conversion, and back-office transition.

Table 2-5
Average Annual Percent Change in Collected Transactions and Revenue by Facility

Fiscal Year	Hatem Bridge	Kennedy Highway	Harbor Tunnel	Fort McHenry Tunnel	Key Bridge	Bay Bridge	Nice/Middleton Bridge	ICC ⁽¹⁾	I-95 ETL ⁽¹⁾
Passenger Car Transactions									
2007 to 2009	(3.3)	(0.3)	(0.2)	(1.3)	(1.7)	(2.1)	(0.2)	-	-
2009 to 2019	(0.1)	0.4	(2.0)	1.0	1.0	0.7	0.0	-	-
2017 to 2019	(0.2)	(1.6)	(13.3)	3.1	6.7	0.1	(1.6)	5.3	4.1
2019 to 2022	(4.8)	0.3	7.4	(4.6)	(3.1)	2.2	(0.6)	4.3	(3.7)
Passenger Car Revenue									
2007 to 2009	14.8	(1.0)	3.8	(3.8)	(3.4)	(4.7)	(2.4)	-	-
2009 to 2019	38.7	13.2	17.9	22.8	27.0	11.1	19.5	-	-
2017 to 2019	(2.9)	(1.7)	(12.4)	3.2	7.3	0.2	(1.7)	3.3	3.5
2019 to 2022	20.5	2.0	10.7	(1.8)	1.6	5.8	3.6	5.9	(2.7)
Commercial Vehicle Transactions									
2007 to 2009	(40.2)	(3.0)	(6.7)	(4.1)	(6.1)	(11.5)	(9.7)	-	-
2009 to 2019	8.4	0.2	(2.3)	1.8	0.6	0.4	(1.7)	-	-
2017 to 2019	2.4	2.3	(4.3)	3.6	4.6	(0.4)	0.1	9.8	16.0
2019 to 2022	6.9	5.7	10.7	4.4	5.5	1.5	6.1	10.7	8.1
Commercial Vehicle Revenue									
2007 to 2009	(112.9)	3.4	(10.2)	(0.1)	(5.8)	(12.8)	(21.0)	-	-
2009 to 2019	59.6	19.6	15.5	29.6	25.4	17.2	20.6	-	-
2017 to 2019	3.1	2.4	(3.1)	3.2	4.4	(1.1)	0.2	9.6	18.2
2019 to 2022	9.3	6.0	12.1	5.6	5.8	2.1	7.4	16.7	13.1

⁽¹⁾ AAPC for ICC and I-95 ETL transactions/trips and revenue presented beginning FY 2017 due to vehicle class data availability.

As shown in **Table 2-5**, between FY 2007 and FY 2009, the passenger car transactions decreased on all seven legacy facilities, with the largest decrease of 3.3 percent per annum on the Hatem bridge. The smallest decrease in passenger car transactions during this period was 0.2 percent per annum on the Harbor Tunnel and Nice/Middleton Bridge. The commercial vehicle transactions decreased significantly between FY 2007 and FY 2009 on all the legacy facilities, with the largest decrease of 40.2 percent per annum on the Hatem Bridge. Following these decreases associated with the Great Recession, continued economic uncertainty and several toll increases resulted in the total Legacy system transactions decreasing by 3.4 percent from 116.5 million in FY 2009 to 112.5 million in FY 2014. Due to the toll increases, the Legacy system revenue grew from about 277 million in FY 2009 to 595 million in FY 2015. Total transactions increased by 2.8 percent in FY 2015 reaching FY 115.7 million, mostly due to the high growth on

Hatem Bridge and Baltimore Harbor Tunnel, where transactions increased by 6.0 percent and 8.9 percent respectively, compared to FY 2014. Similarly, the Legacy system transactions grew by 2.9 percent in FY 2016 and 2.5 percent in FY 2017 compared to previous years. The revenue decreased in FY 2016 by 2.2 percent due to the toll decrease implemented on July 1, 2015. The traffic increases between FY 2015 and FY 2017 on the system were the result of strong economic performance and the FY 2016 toll decrease. This upward trend came to an end in FY 2018, when the system transactions decreased by 0.3 percent. In FY 2019, the transactions decreased further by 2.0 percent, driven especially by the 25.6 drop in transactions on the Baltimore Harbor Tunnel due to construction. Revenue followed a similar trend decreasing by 2.1 percent and 0.7 percent in FY 2018 and FY 2019 respectively. Overall, between FY 2009 and FY 2019, the total legacy system transactions increased by 0.2 percent per annum and revenue increased by 7.8 per annum. Beginning in March 2020, the COVID-19 pandemic caused significant reductions in traffic on the MDTA system. This has caused the FY 2020 Legacy system transaction to decrease by 16.4 percent and revenue to decrease by 13.8 percent compared to FY 2019. In FY 2021, ongoing pandemic impacts, back office transition collection issues, and the conversion to cashless tolling have caused a further 28.3 percent decline in transactions over FY 2020. In FY 2022, transactions and revenue increased by 66.3 and 75.0 percent, respectively, over the prior year. This is due to ongoing COVID-19 recovery as well as collections on transactions from previous years due to the business rule changes.

For the Intercounty Connector, tolling began on the second segment of the ICC from MD-97/Georgia Avenue to I-95 in FY 2012, making FY 2013 the first full fiscal year of I-370 to I-95 operations on the ICC. Trips then increased by 19.1 percent in FY 2014. This was due primarily to facility “ramp-up,” when motorists adjust their travel patterns over time as they become aware of a new facility and the benefits that it offers over their current route of travel. This ramp-up period continued into FY 2015, with a 17.8 percent growth in trips and a 16.6 percent growth in toll revenue. FY 2015 growth also included the opening of the final segment of the ICC in November 2014; a 1.53-mile extension on the eastern end between I-95 and US 1. Trips in FY 2016 grew at a faster rate than FY 2015, which can be attributed in part to the toll reduction implemented on July 1, 2015. Toll revenue for FY 2016 was 5.9 percent higher than FY 2015, which reflects continued robust growth in trips offset in part by the negative revenue impact of the lower tolls. Trips growth for FY 2017 was strong at 8.9 percent. FY 2018 and FY 2019 had trips growth at 5.4 and 5.5 percent, respectively. This strong growth is likely due to increasing regional population and employment as well as the ICC serving as a congestion relief route as an uncongested facility in a region where congestion is growing. As was seen with the Legacy facilities, due to the COVID-19 pandemic, there was a 9.2 decrease in trips and 16.1 percent decrease in revenue in FY 2020 compared to FY 2019. FY 2021 transactions and revenue were 65.6 and 63.3 percent lower than FY 2020, respectively, due to ongoing pandemic impacts, back office transition collection issues, and the conversion to cashless tolling. In FY 2022 transactions and revenue nearly tripled over FY 2021 due to processing of transactions from the previous fiscal years as well as some recovery from COVID-19 traffic impacts.

The I-95 ETLs opened in FY 2015, and FY 2016 was the first full fiscal year of operations. In FY 2017, transactions and revenue on the ETLs increased by 12.0 percent and 9.6 percent, respectively, compared to FY 2016. This was due primarily to facility ramp-up, the phenomenon that occurs with the opening of a new facility as explained above. This growth continued in FY

2018 and FY 2019, when transactions increased by 4.2 percent and 5.1 percent, respectively, over their previous years. Revenue grew at slightly higher levels than transactions with a 5.4 percent growth in FY 2018 and 5.9 percent growth in FY 2019. Due to COVID-19 pandemic, FY 2020 transactions and revenue decreased significantly by 21.1 percent and 22.8 percent, respectively, compared to FY 2019. Ongoing pandemic impacts, back-office transition collection issues, and the conversion to cashless tolling, caused FY 2021 transactions to be 33.2 percent lower than FY 2020 and revenue to be 27.9 percent lower. In FY 2022, transactions and revenue were 73 and 81.7 percent higher than FY 2021, respectively.

2.2.2 In-Lane Traffic

This section provides a brief review of the historical raw in-lane traffic trends for each of the seven MDTA Legacy facilities, I-95 ETLs, and the ICC. Data shown is for traffic at the toll gantry locations. Data for the ICC, which has several toll gantries, is shown as the total in-lane traffic at all toll gantries. This data allows analysis of traffic trends without the impacts of recent collection related challenges. **Table 2-6** summarizes this data annually for FY 2019 through FY 2022 for passenger cars and commercial vehicles.

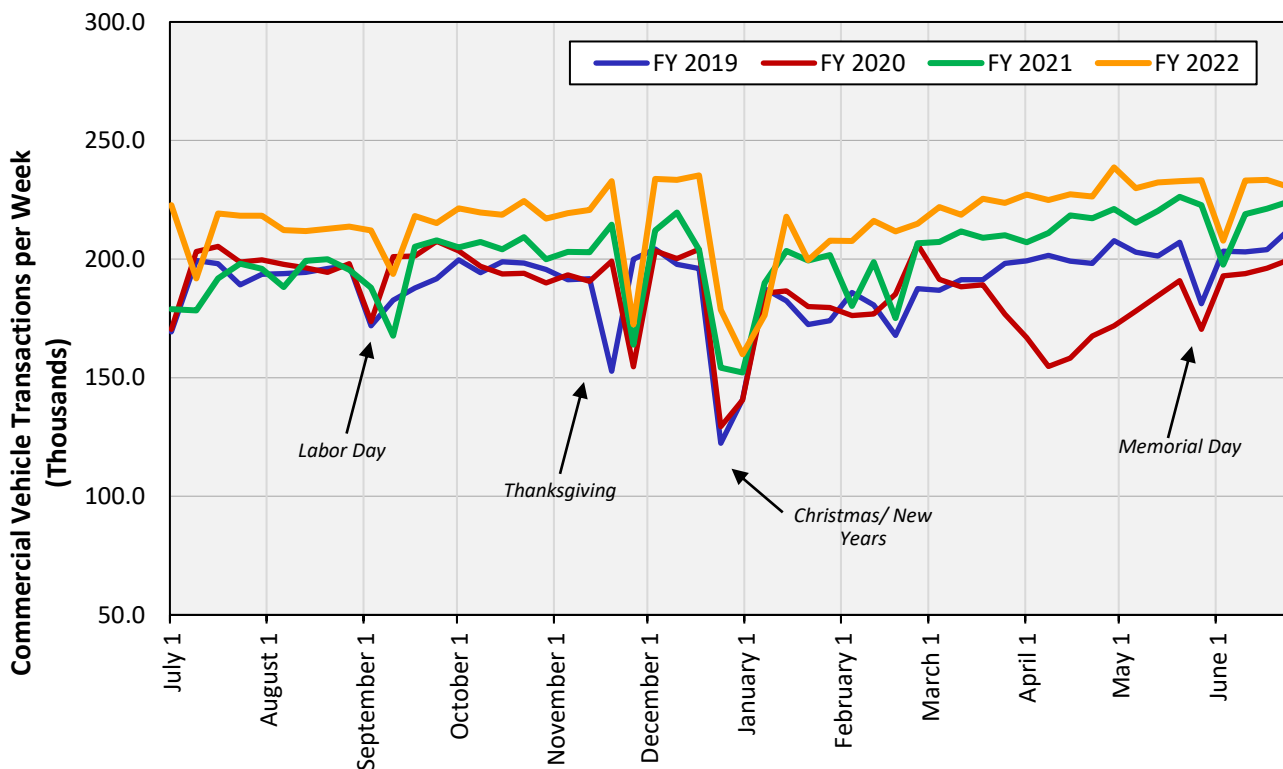
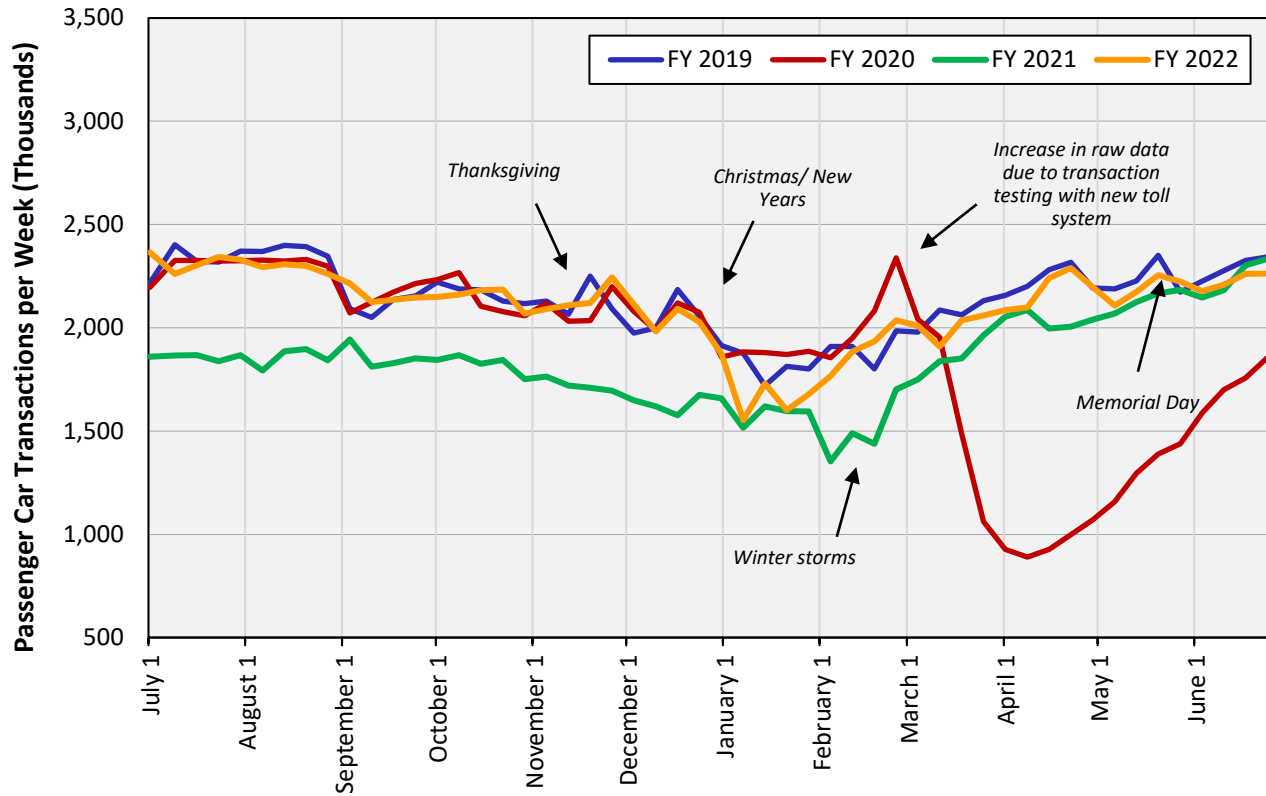
Considering FY 2020 had just three and a half months of COVID-19 impacted travel, FY 2021 made a strong recovery over FY 2020 particularly on the Kennedy Highway and the Bay Bridge for passenger cars. Due to the completion of construction on the Harbor Tunnel, passenger car traffic has increased significantly over FY 2020 and has pulled some traffic back that had diverted to the Fort McHenry and Francis Scott Key Bridge. Commercial vehicle traffic has made a strong recovery and experienced significant growth over FY 2020 for all Legacy facilities. In FY 2022, all facilities had positive growth over FY 2021 with the Kennedy Highway, Bay Bridge, and Nice Bridge maintaining higher growth than the other facilities.

The ICC and I-95 ETLs have not recovered at the same pace as the Legacy facilities due to their larger commuting share of traffic and the congestion relief nature of these two facilities. This sector of traffic has dropped significantly as remote working increased during the pandemic and will likely continue to recover at a slower pace as a portion of employees gradually return to work. Due to this, the ICC declined by 13.8 percent year-over-year in both FY 2020 and FY 2021 for passenger cars. The I-95 ETLs fared worse in FY 2021 and declined by almost 21 percent, compared to a decline of 17.5 percent in FY 2020. In FY 2022, the ICC and ETLs had positive growth of 24 and 34.4 percent, respectively, for passenger cars. Commercial vehicles make up a very small portion of traffic on both of these facilities, but similar to the Legacy facilities they showed less impact due to COVID-19 in FY 2020 and were recovered to 2019 levels in FY 2021, with the ICC experiencing an increase in traffic of 1.7 percent year-over-year. In FY 2022, the ICC and ETL commercial vehicles had positive growth of 4.6 and 41.9 percent, respectively, and both now exceed 2019 levels. This large percent increase on the I-95 ETLs equates to an increase of approximately 200,000 commercial vehicles.

Figure 2-2 provides a graphical representation of these year-over-year trends for in-lane data from FY 2019 through FY 2022 for the total Legacy System passenger cars and commercial vehicles. **Figure 2-3** and **Figure 2-4** show the same information for the Intercounty Connector and I-95 ETLs.

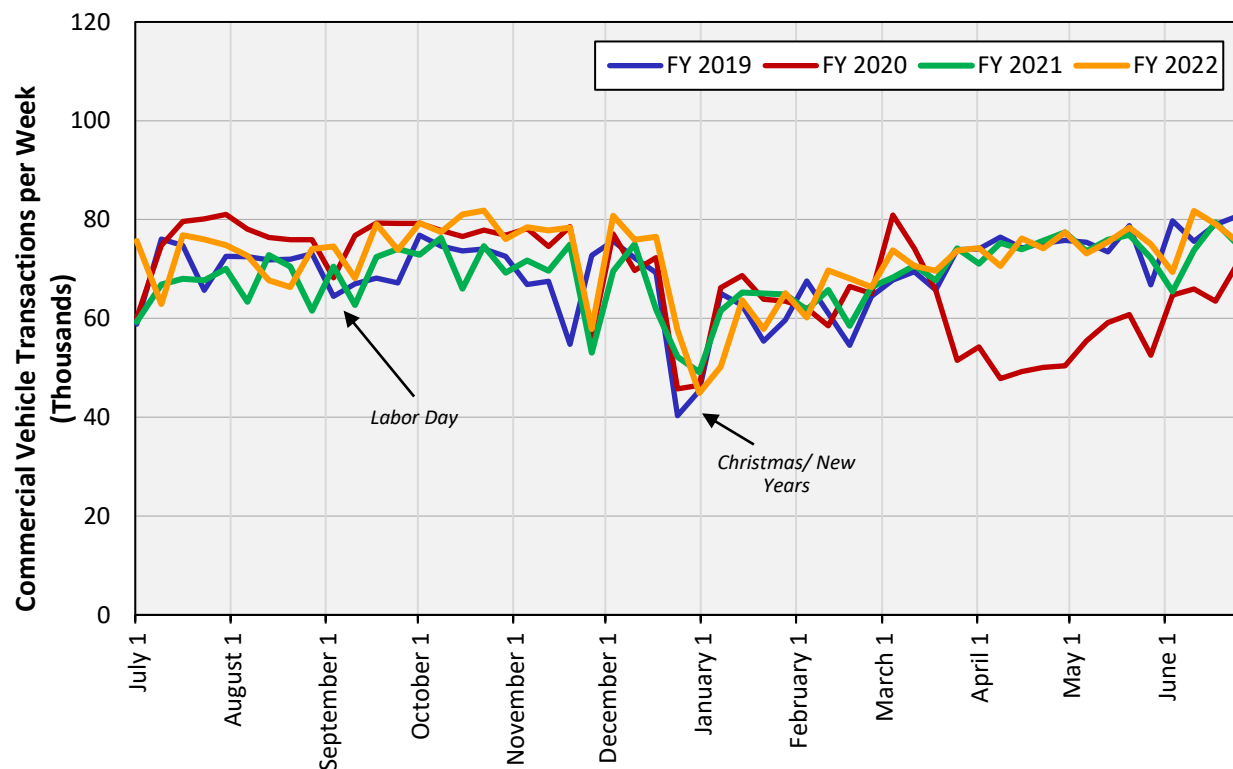
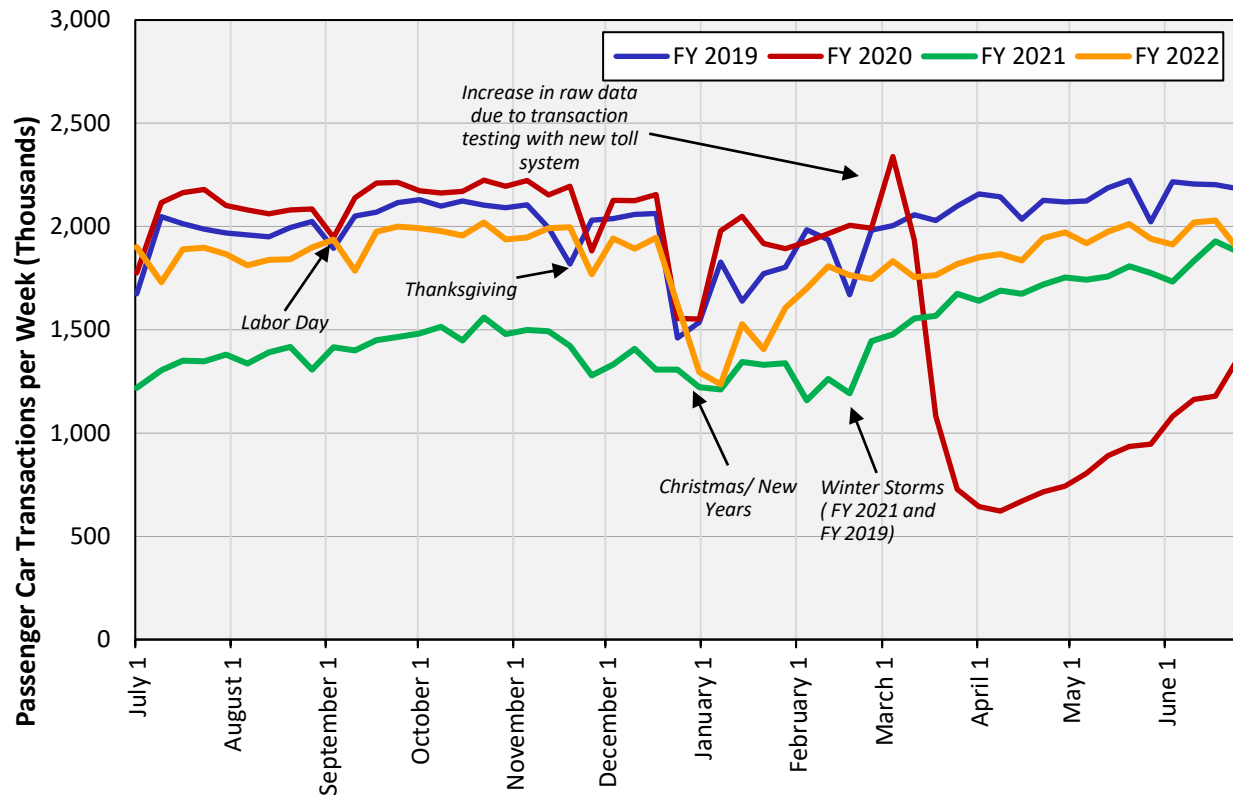
Table 2-6
MDTA In-Lane Traffic by Fiscal Year

Fiscal Year	Hatem Bridge		Kennedy Highway		Harbor Tunnel		Fort McHenry Tunnel		Key Bridge		Bay Bridge		Nice /Middleton Bridge		ICC ⁽¹⁾		I-95 ETL ⁽¹⁾	
	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change
In-Lane Passenger Car Traffic (in millions)																		
2019	4,898	-	13,530	-	20,908	-	44,617	-	11,866	-	12,747	-	3,147	-	104,334	-	9,349	-
2020	4,450	(9.1)	11,367	(16.0)	15,189	(27.3)	40,757	(8.7)	11,821	(0.4)	11,703	(8.2)	2,803	(10.9)	89,920	(13.8)	7,709	(17.5)
2021	4,137	(7.0)	11,472	0.9	17,964	18.3	37,951	(6.9)	10,654	(9.9)	11,510	(1.6)	2,652	(5.4)	77,548	(13.8)	6,100	(20.9)
2022	4,535	9.6	13,445	17.2	26,441	47.2	38,986	2.7	10,936	2.6	12,443	8.1	3,076	16.0	96,128	24.0	8,199	34.4
In-Lane Commercial Vehicle Traffic (in millions)																		
2019	0,228	-	1,995	-	0,794	-	4,535	-	1,209	-	0,915	-	0,215	-	3,595	-	0,558	-
2020	0,228	(0.3)	2,022	1.4	0,652	(17.8)	4,496	(0.8)	1,247	3.2	0,923	0.9	0,202	(6.4)	3,528	(1.9)	0,490	(12.1)
2021	0,249	9.4	2,210	9.3	0,681	4.5	4,907	9.1	1,305	4.6	0,943	2.2	0,215	6.4	3,588	1.7	0,478	(2.6)
2022	0,270	8.4	2,349	6.3	0,921	35.2	5,156	5.1	1,402	7.4	0,946	0.3	0,265	23.3	3,753	4.6	0,678	41.9
Total In-Lane Traffic (in millions)																		
2019	5,126	-	15,525	-	21,702	-	49,151	-	13,075	-	13,662	-	3,363	-	107,930	-	9,907	-
2020	4,677	(8.8)	13,389	(13.8)	15,842	(27.0)	45,253	(7.9)	13,068	(0.1)	12,626	(7.6)	3,004	(10.7)	93,448	(13.4)	8,200	(17.2)
2021	4,386	(6.2)	13,682	2.2	18,646	17.7	42,858	(5.3)	11,959	(8.5)	12,453	(1.4)	2,866	(4.6)	81,136	(13.2)	6,578	(19.8)
2022	4,805	9.6	15,795	15.4	27,362	46.7	44,141	3.0	12,338	3.2	13,390	7.5	3,340	16.6	99,881	23.1	8,877	34.9



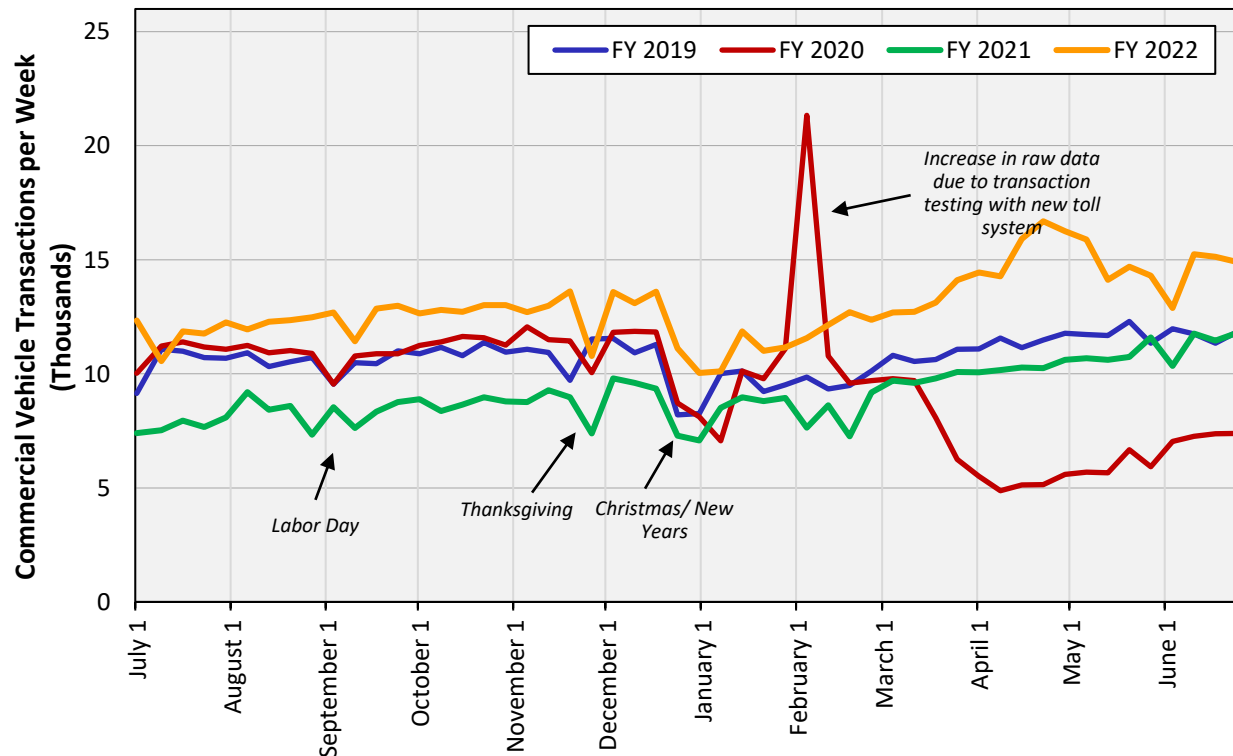
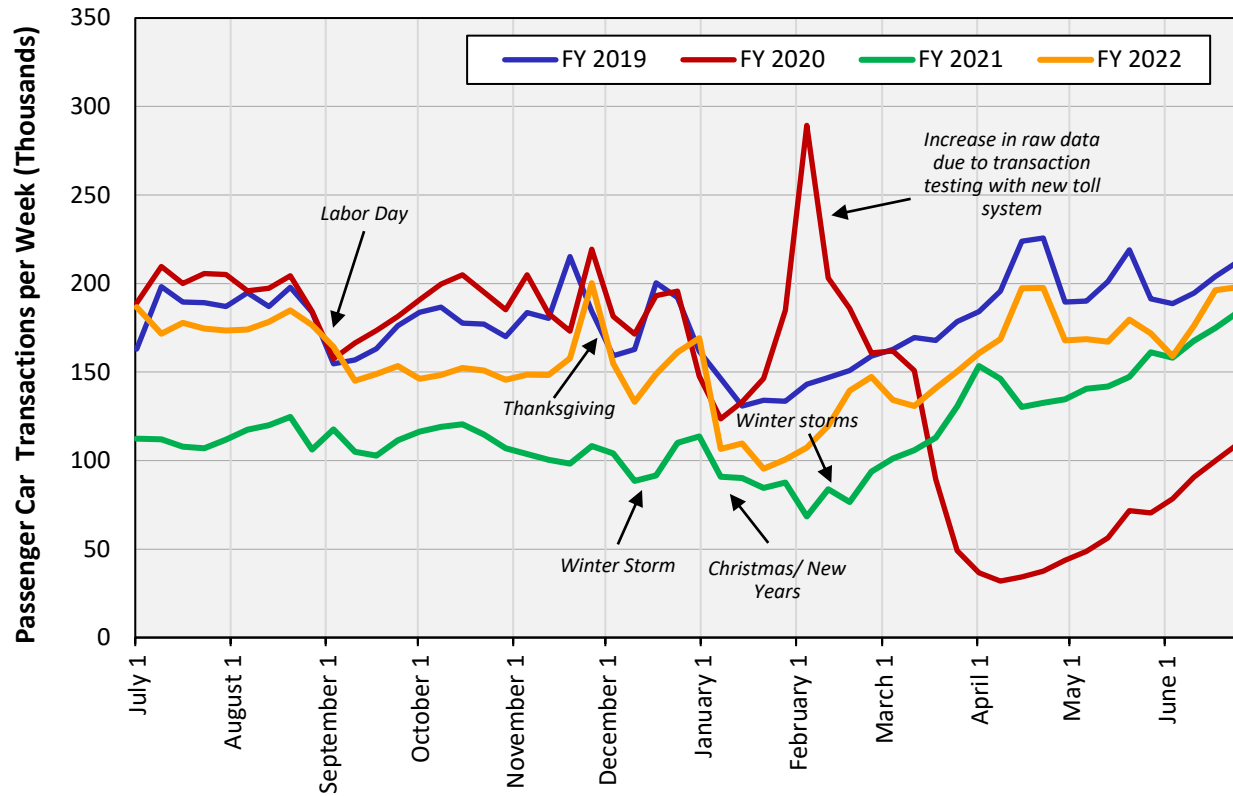
Source: Maryland Transportation Authority E-ZPass Operations, Daily Transactions

TRANSACTIONS PER WEEK BY FISCAL YEAR LEGACY SYSTEM



Source: Maryland Transportation Authority E-ZPass Operations, Daily Transactions

TRANSACTIONS PER WEEK BY FISCAL YEAR INTERCOUNTY CONNECTOR



Source: Maryland Transportation Authority E-ZPass Operations, Daily Transactions

TRANSACTIONS PER WEEK BY FISCAL YEAR I-95 EXPRESS TOLL LANES (ETL)

2.3 Historical Traffic on Other Major Highways

In order to better understand regional traffic growth patterns, historical traffic counts on select competing major routes were reviewed dating back to 2007. These roads include interstates and major highways that compete with or complement the MDTA Legacy facilities. The data presented in this section are based on calendar year average annual daily traffic volumes and associated growth rates at each location. Historical average annual daily traffic volumes and annual growth rates on six Maryland State Highway Authority (MSHA) roadways and one Virginia roadway through 2020 are presented in **Table 2-7**. Data is not yet available for 2021.

As shown in **Table 2-7**, the traffic volumes on the northern region MSHA roadway, US 1 (east of Cedar Church Road), followed a more positive trend compared to the northern MDTA facilities, with a growth of 1.1 percent between 2009 and 2019. This compares to a transaction growth of 0.4 percent for passenger cars and 0.2 percent for commercial vehicles during this period on the Kennedy highway. Toll increases implemented during this period would contribute to the more modest growth trends on the MDTA facilities. In 2020, traffic decreased by 12.9 percent due to the COVID-19 pandemic.

The historical average annual daily traffic volumes and annual growth rates for the central region MSHA roadways are represented in **Table 2-9** by I-95 (N of MD 100), I-97 (N of MD 176) and I-695 (E of MD 146), which are all located in the Baltimore area. Traffic volumes on the MSHA facilities decreased by an average of 2.2 percent in 2008, most likely due to the impacts of the Great Recession, while traffic volumes on the Central Region MDTA facilities did not experience significant effects of the recession until 2009 with volumes decreasing by 2.7 percent. Traffic volume decreases on the central MDTA facilities also occurred in years 2012 and 2013 due to toll rate increases. Overall, during the great recession years (2007 to 2009), traffic decreased by an average of 0.1 percent and 1.3 percent per year on central region MSHA and MDTA facilities, respectively. During the 2009 to 2019 post-recession period, traffic has increased by 0.2 percent on the MDTA facilities and 0.5 percent on the MSHA facilities in the central region. In 2020 the central region MSHA facilities decreased by 19.5 percent compared to 2019.

The historical average annual daily traffic volumes and annual growth rates on one southern region MSHA roadway is represented by US 301 (South of MD 234) in **Table 2-7**. Due to the proximity of the Bay Bridge (US 50) to Virginia, one traffic count location in northern Virginia has also been included in the table. On an average, traffic volumes on the two southern region MDTA facilities (Bay Bridge and Nice/Middleton Bridge) have grown higher than the comparison locations. During the 2009 to 2019 post-recession period, traffic has increased modestly, averaging 0.5 percent per annum on the MDTA facilities and 0.1 percent on the combined MSHA and VDOT facilities. Traffic volume decreases on the southern MDTA facilities occurred in years 2012 and 2013 due to toll rate increases. Following this, both on the MDTA and on the combined Southern Region MSHA and Virginia facilities, traffic has grown at relatively higher levels. Between 2015 and 2017 growth averaged 2.1 percent on the two southern MDTA facilities and 1.6 percent on the MSHA and Virginia roads. Since then, traffic has been flat or declined on both southern region MDTA and MSHA facilities, before declining further in 2020.

Table 2-7
Average Annual Daily Traffic Trends on Major Highways

Calendar Year	US 1 E of Cedar Church Rd.		I-95 N of MD 100		I-97 N of MD 176		I-695 E of MD 146		MD 295 N of MD 100		US 301 S of MD 234		I-95 (Virginia) N of Courthouse Rd	
	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change	Value	Change
2007	11,600	-	191,900	-	102,600	-	155,300	-	91,600	-	22,500	-	137,000	-
2008	11,100	(4.3)	188,000	(2.0)	100,600	(1.9)	152,200	(2.0)	88,900	(2.9)	21,400	(4.9)	133,000	(2.9)
2009	11,300	1.8	192,100	2.2	105,100	4.5	153,700	1.0	88,900	-	21,800	1.9	136,000	2.3
2010	10,100	(10.6)	192,900	0.4	105,500	0.4	150,900	(1.8)	89,400	0.6	22,500	3.2	136,000	-
2011	9,900	(2.0)	193,100	0.1	105,600	0.1	151,000	0.1	93,400	4.5	22,100	(1.8)	135,000	(0.7)
2012	9,900	-	191,300	(0.9)	106,200	0.6	151,800	0.5	92,600	(0.9)	22,100	-	135,000	-
2013	9,300	(6.1)	193,000	0.9	107,200	0.9	149,500	(1.5)	92,800	0.2	20,800	(5.9)	132,000	(2.2)
2014	9,300	-	192,800	(0.1)	107,100	(0.1)	149,300	(0.1)	107,700	16.1	20,800	-	131,000	(0.8)
2015	10,100	8.6	207,300	7.5	111,800	4.4	160,500	7.5	108,500	0.7	22,600	8.7	134,000	2.3
2016	11,500	13.9	201,600	(2.7)	108,700	(2.8)	150,200	(6.4)	103,300	(4.8)	21,900	(3.1)	136,000	1.5
2017	11,800	2.6	206,400	2.4	111,300	2.4	153,800	2.4	105,400	2.0	22,400	2.3	137,000	0.7
2018	11,700	(0.8)	205,200	(0.6)	121,100	8.8	152,900	(0.6)	104,500	(0.9)	22,200	(0.9)	136,000	(0.7)
2019	12,600	7.7	180,200	(12.2)	122,000	0.7	161,300	5.5	104,500	-	21,800	(1.8)	137,000	0.7
2020	10,971	(12.9)	145,051	(19.5)	98,182	(19.5)	129,811	(19.5)	87,223	(16.5)	18,031	(17.3)	127,000	(7.3)
Average Annual Percent Change														
2007 to 2009		(1.3)		0.1		1.2		(0.5)		(1.5)		(1.6)		(0.4)
2009 to 2019		1.1		(0.6)		1.5		0.5		1.6		-		0.1
2019 to 2020		(12.9)		(19.5)		(19.5)		(19.5)		(16.5)		(17.3)		(7.3)

Trends over the past 13-year period for both the MDTA system and the other major highways were used as a reference in assessing the estimated ten-year traffic growth for the traffic and revenue forecasts presented in Chapter 4.

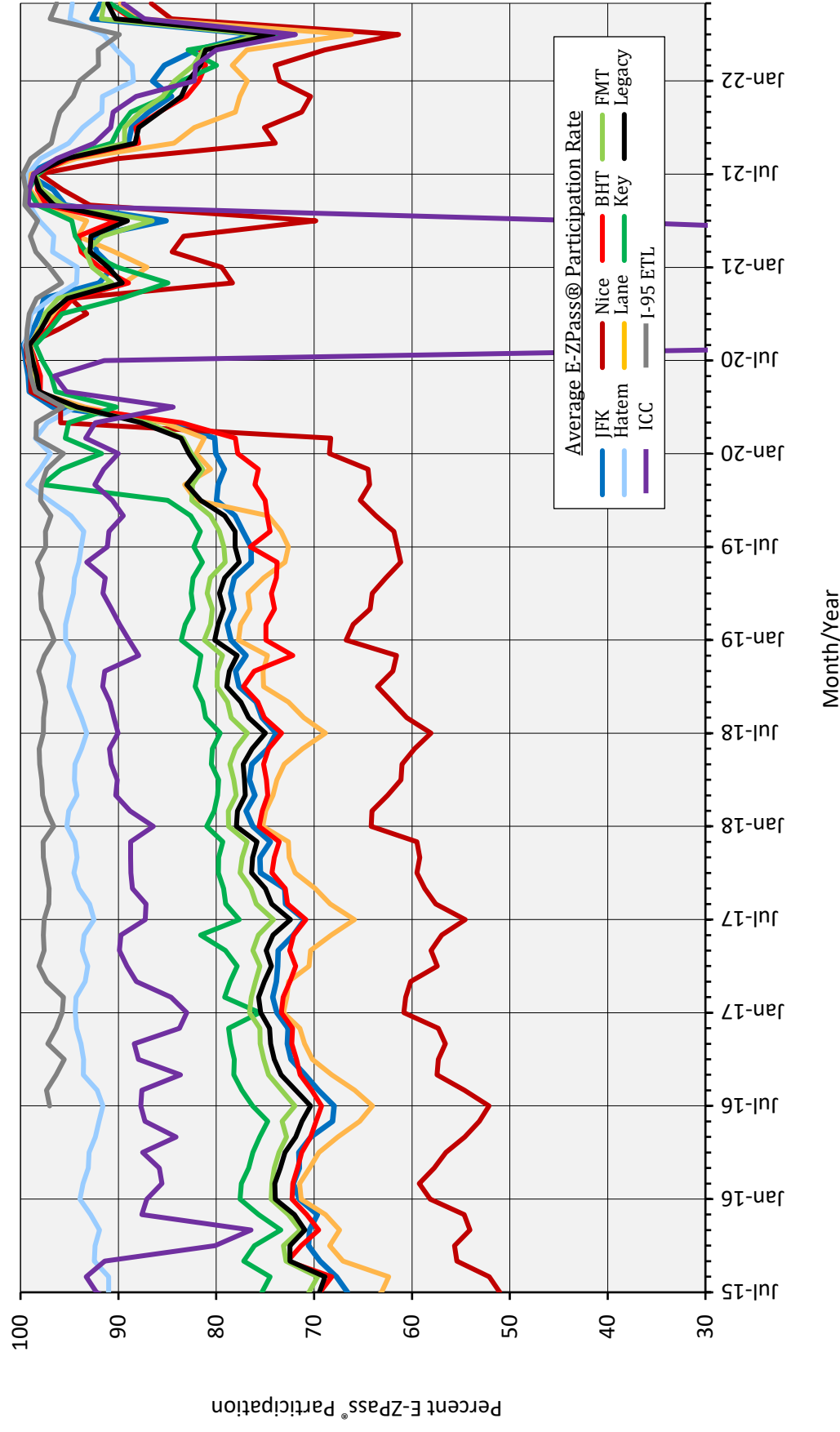
2.4 MDTA E-ZPass® Market Share

In recent years, electronic toll collection has played an increasingly important role in transaction processing for toll agencies across the nation. MDTA collects electronic tolls via E-ZPass®. **Figure 2-5** provides a graphic summary of the E-ZPass® market share for each of the seven Legacy facilities, the total Legacy system, the Intercounty Connector, and the I-95 Express Toll Lanes (ETL) from July 2008 through June 2022 for collected transactions.

From July 2019 to February 2020, E-ZPass® transactions accounted for an average of 80.8 percent of the total Legacy system transactions, an increase of 2.9 percent over the same period in FY 2019. Of these, 66.8 percent were made by Maryland E-ZPass® customers, including in-state E-ZPass® customers, commuter plans, shopper plans and Hatem Bridge plans. Over the same time period, in terms of individual facilities, the Thomas J. Hatem Memorial Bridge had the greatest percentage of E-ZPass® customers at 96.3 percent of total transactions over this time period, primarily due to the Hatem Bridge Toll Plans and its conversion to cashless tolling prior to March. The Governor Harry W. Nice Memorial/Senator Thomas “Mac” Middleton Bridge had the lowest percentage of E-ZPass® transactions during this time period at 64.4 percent. On a total system basis, between July 2019 and February 2020, cash transactions accounted for a combined 17.0 percent of all transactions, a decrease of 3.3 percent over same period in FY 2019. Video transactions accounted for 2.1 percent of all transactions made between July 2019 and February 2020.

On March 17, 2020 MDTA implemented systemwide cashless tolling to prevent the potential spread of COVID-19 during exchanges of cash at toll booths. Additionally, mailing of Notice of Toll Due (NOTD) video invoices was paused until October 2020. Due to these changes and other collection challenges related to the back-office transition, E-ZPass® transactions accounted for 94 percent of all Legacy system transactions in April 2020 and about 98 percent of the total transactions in May and June 2020. The pause of the NOTD invoicing mailings and the back-office transition caused FY 2021 E-ZPass® trends to be more volatile than previous years. In particular, the ICC shows a significant drop in E-ZPass® marketshare due to challenges with trip reconstruction related to the back-office transition. By the end of the fiscal year in July, E-ZPass® marketshare for all facilities was returning to levels seen initially after transition to all-electronic tolling.

In FY 2022, as more NOTD invoices were mailed and paid from the paused period, the E-ZPass marketshare became volatile again as higher shares of video tolls were being paid. Due to this, the share of E-ZPass declined throughout the fiscal year before rebounding in May and June 2022.



Note: FY 2021 Intercounty Connector toll revenue collection impacted by delay in trip reconstruction.
FY 2022 impacted by video toll collection from delayed NOTDs from business rule changes.

Collected Transaction E-ZPass® Marketshare Trends by Facility



Chapter 3

Econometric Analysis and Growth Forecasts

An econometric analysis was conducted to estimate future baseline travel demand on MDTA's legacy bridges and tunnels, with historical demand estimated via regression equations using regional socioeconomics and other characteristics as explanatory variables. This analysis was done under Work Task #10 as a planned input into this year's annual forecast update and is documented in detail in this chapter. With such historical trend-based equations, regional socioeconomic forecasts were applied to the equation coefficients to estimate annual future demand.

Sixteen demand equations were attempted for seven individual facilities (and one combination of downtown Baltimore facilities), each separately for passenger and commercial vehicles.

3.1 Modeling Overview

Multivariate regression analysis establishes a mathematical equation for a dependent variable (e.g., annual transactions) as a function of other independent variables (e.g., annual socioeconomic data), with associated statistics explaining the equation robustness. Generally, a regression equation is expressed as follows:

$$y_t = \alpha + (\beta_1 * x_{1,t}) + (\beta_2 * x_{2,t}) + \dots + \varepsilon$$

- y_t is the dependent variable (e.g., annual transactions) in timeframe t
- $x_{1,t}$ and $x_{2,t}$ etc. are the independent variables (e.g., socioeconomics, etc.) in timeframe t
- α is the intercept coefficient
- β_1 and β_2 etc. are the slope coefficients for the respective independent variables
- ε is the residual error

In each regression equation, an *analysis of variation* (ANOVA) table explains statistical parameters, such as adjusted R^2 (*coefficient of determination*) and t-statistics, indicating overall equation and independent variable robustness, respectively. A regression equation can be used to forecast the dependent variable if: ANOVA metrics are statistically significant; the equation's relationships are conceptually valid; and credible independent variable forecasts are available.

Such ANOVA statistics and relationship parameters are evaluated jointly for each equation and when comparing alternative, multiple-option solutions. Tradeoffs between overall statistical fits and individual variable coefficients, statistics, and logic help identify which variable(s) merit inclusion/exclusion, when adjusting historical timeseries is warranted, and/or if variables warrant transformation (e.g., logarithmic equations for curvilinear relationships), etc.

3.2 Data and Testing

Individual highway travel occurs for myriad reasons: recreation, commuting, trade, etc., and is influenced by fuel and other travel costs, weather, trip urgency, etc. Aggregate highway travel

volumes typically trend closely with regional socioeconomic variables. As such, conceptually relevant socioeconomic data were hypothesized, compiled, and regression-tested with other possible explanatory variables, such as dummy variables, fuel prices, average effective toll rates, etc.

Multiple regression equations evaluated for each facility-vehicle type reflect various geographies (county clusters) for each socioeconomic variable combined with other possible explanatory variables. A final equation was selected based on multiple criteria, including:

- overall equation robustness (adjusted R^2),
- independent variable robustness (t-statistics and p-values),
- equation's coefficient(s) logic and reasonableness,
- geographic catchment area logic and reasonableness relative to the facility location, and
- independent variable(s) and source(s) credibility.

3.2.1 Facilities (Dependents)

Seven legacy facility bridges and tunnels were ranked by revenue contribution over the last few years, shown in **Table 3-1**. Note the three downtown Baltimore crossings (Fort McHenry, Baltimore Harbor, and Francis Scott Key) were combined for testing due to proximity and historical traffic diversions during individual facility closures, maintenance, and construction. Sixteen equations were sought, representing each facility/combination for passenger cars (PC) and commercial vehicles (CV) (i.e., $[7 + 1] * 2 = 16$).

Table 3-1
Revenue Contribution Ranking by Legacy Facility

Mnemonic	Facility	PC	CV
JFK	John F. Kennedy Memorial Highway	2	4
TJH	Thomas J. Hatem Memorial Bridge	14	12
FMT	Fort McHenry Tunnel	1	3
BHT	Baltimore Harbor Tunnel	5	11
FSK	Francis Scott Key Bridge	7	8
WPL	William Preston Lane Memorial (Bay) Bridge	6	9
HWN	Harry W. Nice/Thomas Middleton Bridge	10	13
BHC3	Baltimore Harbor Crossings (FMT/BHT/FSK)	-	-

Annual facility transaction and revenue data were compiled since 1984 (except Fort McHenry, which extends to 1986) through 2020, providing 37 timeseries data observations per equation. Transaction data are the equations' dependent variables, and facility's revenue per transactions ratios (i.e., average annual effective toll rates) were tested as possible explanatory variables.

Historical transaction data were compiled from MDTA sources such as Traffic Volume Income (TVI) reports, annual reports, and financial statements. Some data limitations were identified in early years for data pulled from the public reports, such as partial years and rounding. Data were adjusted/normalized to eliminate influences of single-occurrence exogenous factors that affected traffic (i.e., construction shut-downs, facility reconfigurations, one-/two-way toll conversions,

leap-years, etc.) prior-to regression modeling with socioeconomic variables. Adjustments to data in the early years were estimated based on documentation in the public reports, while adjustments to data since FY 2013 was based on more detailed data provided by MDTA in previous CDM Smith work tasks.

3.2.2 Explanatory Variables (Independents)

Socioeconomic, macroeconomic, and other data were compiled or estimated for the same historical timeseries, which include:

- *MDTA* – historical facility revenues/transactions (average effective toll rates)
- *United States Census Bureau* – historical population
- *United States Bureau of Economic Analysis (BEA)* – historical employment
- *Woods & Poole Economics, Inc., 2022 (WP22)* – historical and forecast population, employment, real income, income per capita, real gross regional product (GRP), and real retail sales
- *Moody's Analytics* – historical and forecast Maryland population, real gross regional product (GRP), and retail sales (top level comparison against WP22 forecasts)
- *Energy Information Administration (EIA)* – historical and forecast real- and nominal-dollar denominated gasoline and diesel fuel prices
- *Dummy Variables* – COVID-19 (2020); Great Recession (2008/09); September 11th (2001); Construction (facility-specific)

3.2.3 Geographies

Socioeconomic data have geographic and temporal dimensions. Annual timeseries data for each variable/source were compiled for all states and counties within and abutting Maryland (MD), including Delaware (DE), the District of Columbia (DC), New Jersey (NJ), Pennsylvania (PA), Virginia (VA), and West Virginia (WV). State and county socioeconomic data can be aggregated, such that various combinations of clustered counties can be tested. Numerous logical and contiguous geographic clusters were tested for the available socioeconomic variables to ascertain which variable(s) were best suited to explain historical transaction data at which geographic catchment. Note the geographic catchments ultimately identified and selected do not necessarily represent most traffic/transaction origins and/or destinations, but rather such catchments' macroeconomic characteristics most closely represent and/or correlate with historically observed transactions.

3.3 Caveats

Econometrically derived demand forecasts drive further transaction and toll revenues estimates. Regression-based growth forecasts do not explicitly consider route choice assumptions, existing roadway network and planned improvements, existing and anticipated roadway capacities, origin-destination pairing, peak and directional factors, or traffic diversions.

As this regression analysis attempts to estimate aggregate travel demand, the equations cannot account for all potentially influencing factors, especially small-scale, qualitative/difficult-to-quantify, and/or irregularly occurring factors. Also, a regression analysis is incapable of forecasting unprecedented factors (positive or negative influence) such as catastrophic climate

change, health epidemics, terrorism, natural disasters, or any other significantly destabilizing factors.

Forecasts are estimates, limited by the availability and robustness of input data, both historical and projected. Data unavailability, discrepancies, aberrations, and inaccuracies can hinder the robustness and results of econometric forecasting.

3.4 Equations' Characteristics

Various equations for each facility-vehicle type were tested, reflecting combinations of socioeconomics, geographies, other variables, linear versus ln-linear functions, and different historical timeseries (e.g., adjustable start year). A single best-suited equation was identified for 14 of 16 facility-vehicle types, considering overall statistical robustness, logic and magnitude of explanatory variable coefficients, logic and consistency of variable selection and geographic clustering between facilities, and other factors. The summary of these equations is shown below in **Table 3-2**.

Table 3-2
Econometric Equations Summary

	Facility	Adj. R ²	Start Year	Explanatory Variables (and Counties)
Passenger Cars	JFK	98.7%	1984	Population (4), Nominal Toll Rates, COVID-19, Nominal Gasoline
	TJH	95.4%	1984	Population (4), Nominal Toll Rates, COVID-19
	FMT	96.9%	1989	GRP (2), Nominal Toll Rates, COVID-19
	BHT	94.3%	1988	GRP (8), Nominal Toll Rates, COVID-19, Construction
	FSK	85.5%	1987	GRP (3), Nominal Toll Rates
	WPL	99.4%	1984	Population (3), Nominal Toll Rates, COVID-19
	HWN	98.5%	1984	Population (3), Nominal Toll Rates, COVID-19
	BHC3	97.8%	1991	GRP (3), Nominal Toll Rates, COVID-19
Commercial Vehicles	JFK	84.1%	1990	Retail (10), Nominal Toll Rates
	TJH	N/A	N/A	N/A
	FMT	87.0%	1991	Retail (16), Nominal Toll Rates
	BHT	93.0%	2000	Retail (9), Nominal Toll Rates, COVID-19
	FSK	93.9%	1990	Retail (9), Nominal Toll Rates
	WPL	91.6%	1987	Retail (1), Nominal Toll Rates, COVID-19, Nominal Diesel
	HWN	N/A	N/A	N/A
	BHC3	91.8%	1990	Retail (17), Nominal Toll Rates

3.4.1 Statistics

Overall goodness of fits (adj. R²) for most equations are relatively high, at over 90%; three were lower, in the mid-80%; adjusted R² ranges from 84.1% to 99.4%. Relatively high fits indicate good statistical and correlative relationships (i.e., limited outliers, or residuals, statistically unexplainable from the independent data series).

Passenger car equations exhibit higher adjusted R² than commercial, mostly due to higher aggregate facility passenger volumes and the relatively greater annual changes for commercial

(passenger trends are typically more stable than commercial). Statistically sensible equations for the Thomas J. Hatem and Harry W. Nice bridges' commercial transactions could not be identified due to relatively low volumes with amplified trends and unexplained up/down cycles relative to larger-scale facilities, as well as dependent data rounding-level limitations. Both unidentifiable facilities-vehicle types are the smallest contributors to MDTA's total revenue yields.

3.4.2 Timeseries Considerations

Many facility-vehicle type timeseries exhibited aberrant fluctuations in the earlier years (late '80s and early '90s) with outlier highs/lows never subsequently observed since then. Unusual early-year observations may reflect simpler data collection processes relative to newer, more modern, and accurate processes, or discontinuity from updating such processes without normalizing or adjusting previous-methodologies' data. Additionally, there were likely some bridge closures and disruptions from maintenance and rehabilitation, which shifted/diverted traffic patterns between certain facilities.

A concerted effort to identify causal factors for the unusual early-year observations yielded some information about construction timeframes, which were converted into dummy variables. However, while some explainable factors were identified, some data remained unexplained; hence early year data accuracy was difficult to corroborate. Consequently, some early years were excluded from equations.

3.4.3 Explanatory Variables

For some facility-vehicle type equations, more than one statistically defensible and logic solution was possible; for many, only one sensible solution was identified.

Selected Variables – A single socioeconomic variable for a clustered group of contiguous counties (differs between equations), in conjunction with historical nominal effective toll rates explain most historical transaction equation variation. In most equations, a COVID-19 dummy variable was required to explain the unprecedented declines in 2020 beyond the socioeconomic variables. Also, a construction dummy variable was required for one equation and fuel prices for two.

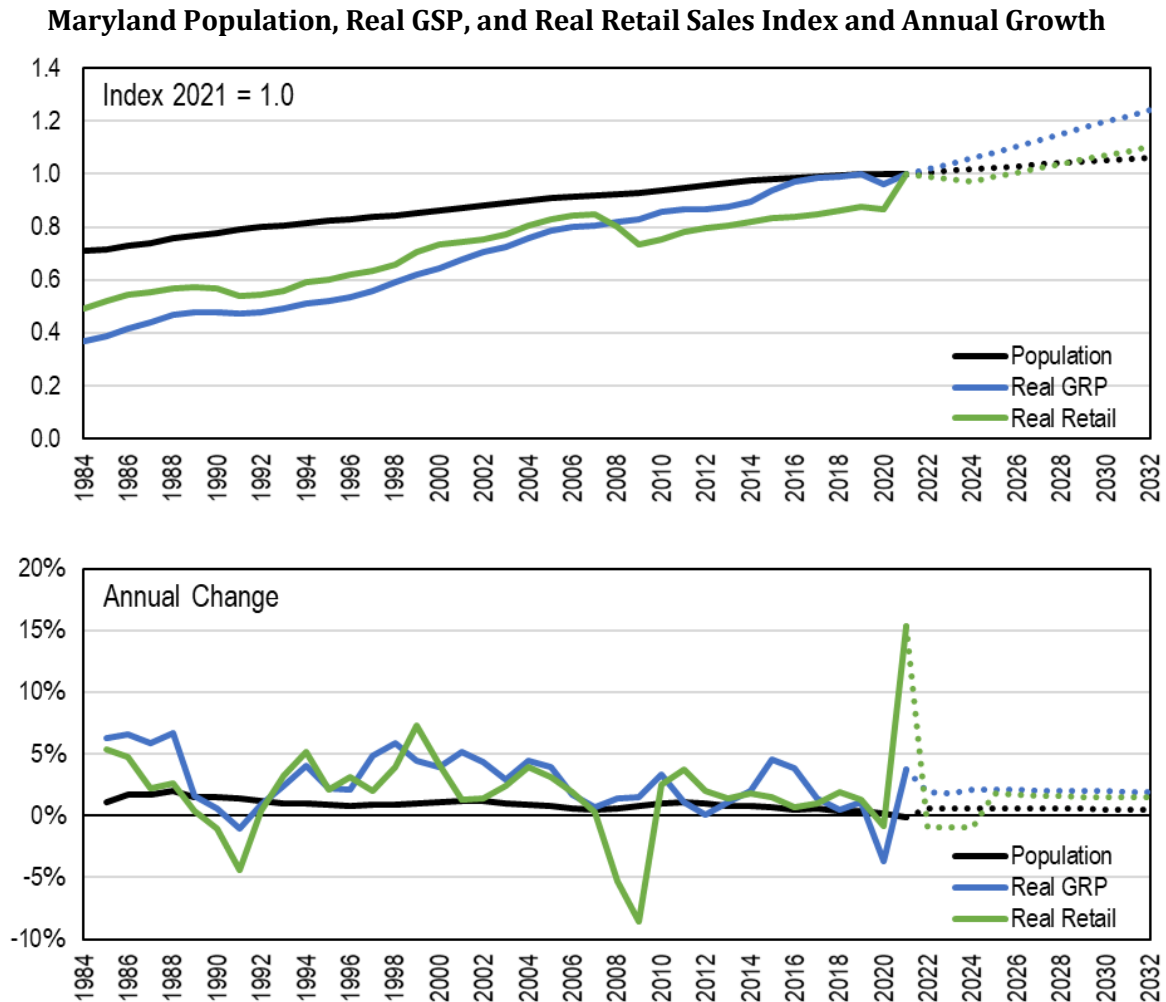
Relative Importance – In all equations, the socioeconomic variable correlated most closely with historical transactions. However, observed historical transactions often exhibited decelerated growth or annual declines in years where socioeconomic growth occurred. Such divergences were almost fully explained via inclusion of the effective toll rate variable, as significant toll rate changes were implemented (especially 1990, 2002, 2004, 2010, 2012, 2013, and 2014). Such relatively significant effective toll rate increases resulted in some relatively inelastic demand declines – enough to warrant inclusion in every identified equation. Dummy variables (COVID-19 and construction) reconciled precipitous transaction declines otherwise not as pronounced in the socioeconomic trends, and the fuel price inclusion was statistically significant for two equations, but not a major explanatory factor.

Comparable Similarities – Explanatory socioeconomic variables between equations exhibit some similarities. Commercial vehicle equations apply real retail sales universally (although a couple facilities' historical transactions also could correlate with regional real GRP, albeit slightly lower than real retail). Passenger car equations for the downtown Baltimore facilities (FMT, BHT, and

FSK) relate most closely to regional real GRP, while the non-Baltimore bridges (JFK, TJH, WPL, and HWN) relate most closely to regional population. Note the county grouping for each equation is different, as elaborated in the next subsection.

Socioeconomic Forecasting – Socioeconomic forecasts applied to the equations’ coefficients to estimate future demand growth are sourced from Woods & Poole’s 2022 Complete Economic and Demographic Data Source (CEDDS), via county-level aggregations. A top-level visualization of Maryland’s population, real GSP, and real retail sales are shown below in **Figure 3-1**, with the three state-level socioeconomic measures plotted as indexed values (2021 = 1.0) for trendline comparability, and as annual growth below. WP22’s compound average annual growth rate (CAGR) forecasts between 2021 and 2032 for Maryland’s population, real GSP, and real retail sales are 0.6%, 2.0%, and 0.9%, respectively. Similar data were purchased from Moody’s (only for Maryland, not the counties); with population forecasted to remain unchanged at 0.1% CAGR, but with real GSP effectively identical to WP22 at 2.0% CAGR; retail sales were unavailable in a real-dollar (2012\$) denomination and precluded direct comparison.

Figure 3-1



Non-Socioeconomic Forecasting – Nominal effective average toll rates are assumed to hold constant in the equation forecasts, reflecting no toll rate increases or decreases. Dummy variables for COVID-19 and construction are likewise assumed to revert to “0” values (non-COVID-19 and non-construction) in 2021 and thereafter. As such, dummy variable inclusion only affects a forecast by adjusting the equations’ fit, not by a changing future trend. Actual multi-year COVID-19 related effects in 2021 and beyond are handled in post-processing the econometric forecasts based on actual observed data in 2021 and 2022 (YTD) and other analyses. As such, the equations’ forecasts are driven predominately by the underlying socioeconomic forecasts (although two equations also include fuel prices, assumed to growth annually at historically observed rates).

3.4.4 Geographies

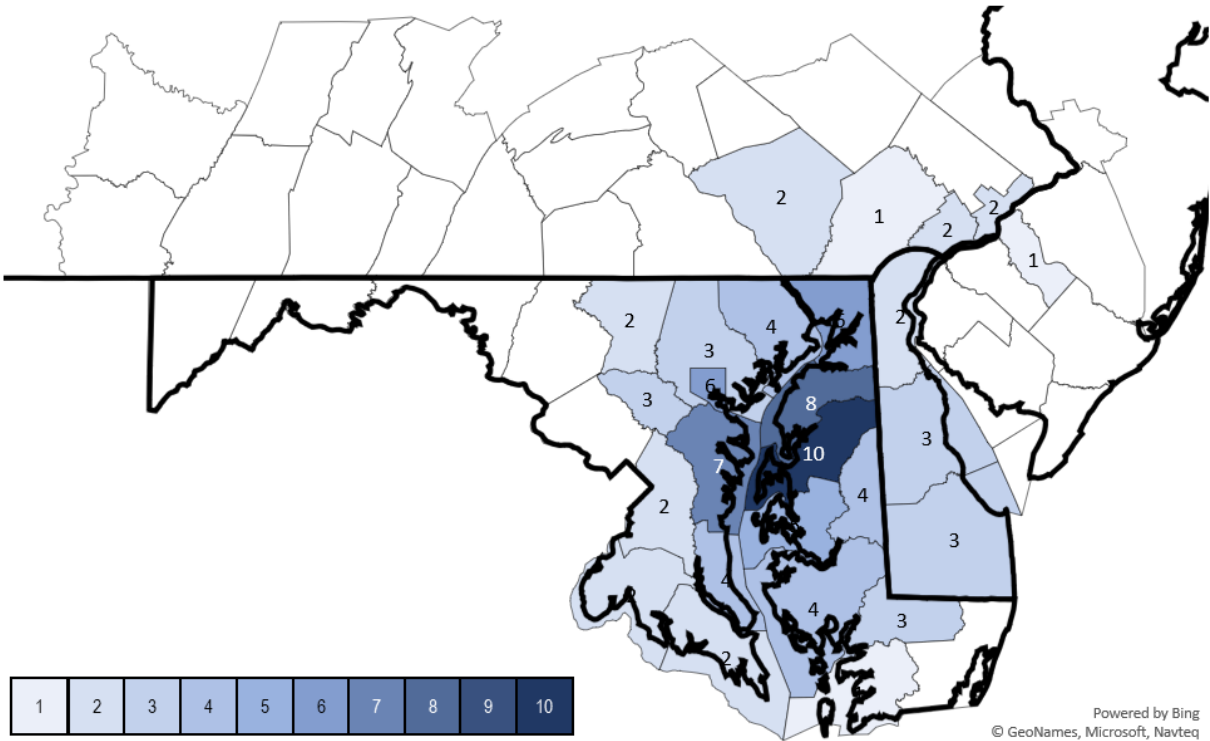
Socioeconomic data were tested with various geographic combinations, primarily Maryland counties in conjunction with adjacent state counties. Typically, the socioeconomic trends of the county where a facility is located correlates with historical transactions, but not as well as county aggregation that includes neighboring geographies. Aggregating counties enables myriad possible combinations, and the testing process was iterative with many successive county inclusion and exclusion trials at different scales/distances from each facility location. Each county’s individual socioeconomic trends, relative contribution to an aggregated geographic total, and sensible geospatial logic (i.e., clustered, contiguous, non-gerrymandered, etc.) were considered in testing.

Ultimately, a cluster of contiguous counties anchored around a facility’s location were selected for each equation to maximize the statistical/explanatory relationships with historical transactions. A geographic cluster does not imply that all travel on the facilities stems exclusively from such geographies, but a significant proportion likely does, and the historical socioeconomic patterns for such county clusters correlates most closely with observed historical facility transactions.

Counties in the equations are tallied below in **Figure 3-2**, counting the number of inclusions in any of the 14 estimated equations. As expected, mostly counties included in the socioeconomic variables surround the facility locations and the Chesapeake Bay, with Queen Annes (10 times), Kent (8), and Anne Arundel (7) included most. The more peripheral counties are only included once-to-few times.

As noted, the county clustering for each equation is different, clustering around the specific facility and expanding into adjoining counties. Counties included range from 1 (WPL CV at Queen Annes) to 17 (combined three Baltimore Harbor Crossings from St. Mary’s in the south up to Philadelphia in the north). On average, about four counties are included per equation’s socioeconomic data.

Figure 3-2
Counties Included in Equations (Count = Number of Equations)



3.5 Econometric Growth Forecasts

Econometrically derived travel demand forecasts are based on applying forecasted explanatory variables' data (variable socioeconomics and fuel, and constant toll rates and dummy variables) to the estimated regression coefficients for the selected equations. Annual forecast growth estimates are shown below in **Table 3-3**, with a summary CAGR for the next decade.

Between 1990 and 2019 (excluding unusual observations in the late '80s and the precipitous declines in 2020 from COVID-19) passenger transactions' growth for all legacy facilities was 1.4% CAGR (ranging between 0.9% and 1.8% between individual facilities). Commercial vehicles' growth was 0.8% (ranging 0.7% to 1.8%). Estimated forecasts are slightly higher than historical timeseries, at 1.5% for all passenger transactions, and 1.1% for commercial, with ranges for passenger slightly wider than historical (0.7% to 2.1%) and commercial narrower (0.3% to 1.1%). As tabulated below, the relatively fastest growth rates are forecasted for the three Baltimore bridges and tunnels (FMT, BHT, and FSK), and the slowest relative growth on the WPL Memorial Bay Bridge crossing the Chesapeake Bay.

Table 3-3
Econometric Demand Growth Forecast Summary

	Facility	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	CAGR
Passenger Cars	JFK	0.9%	0.9%	0.9%	0.9%	0.9%	0.8%	0.8%	0.8%	0.8%	0.8%	0.7%	0.8%
	TJH	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
	FMT	1.4%	1.3%	1.7%	1.6%	1.6%	1.6%	1.5%	1.5%	1.5%	1.5%	1.4%	1.5%
	BHT	2.0%	2.0%	2.3%	2.2%	2.2%	2.2%	2.1%	2.1%	2.1%	2.0%	2.0%	2.1%
	FSK	1.3%	1.3%	1.4%	1.4%	1.4%	1.4%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
	WPL	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
	HWN	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
	BHC3	1.3%	1.3%	1.6%	1.5%	1.5%	1.5%	1.5%	1.4%	1.4%	1.4%	1.4%	1.4%
Commercial Vehicles	JFK	-0.6%	-0.6%	-0.6%	1.2%	1.2%	1.2%	1.1%	1.1%	1.1%	1.0%	1.0%	0.6%
	TJH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	FMT	-1.2%	-1.3%	-1.3%	2.0%	1.9%	1.8%	1.7%	1.7%	1.7%	1.6%	1.6%	0.9%
	BHT	-1.5%	-1.5%	-1.6%	2.5%	2.3%	2.2%	2.1%	2.1%	2.0%	1.9%	1.9%	1.1%
	FSK	-0.9%	-0.9%	-0.9%	2.1%	2.0%	1.9%	1.9%	1.8%	1.8%	1.8%	1.7%	1.1%
	WPL	-0.9%	-0.9%	-0.9%	0.8%	0.8%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.3%
	HWN	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	BHC3	-1.1%	-1.1%	-1.1%	1.9%	1.8%	1.7%	1.6%	1.6%	1.5%	1.5%	1.5%	0.9%

Post-processing the econometric forecasts and revenues estimates are the last component of the forecasting analysis. Growth rates developed from this econometric regression analysis are normal baseline growth rates excluding impacts of other elements such as COVID-19, construction, and recent traffic and economic trends. These elements were considered in the growth rates that were ultimately used in the traffic and revenue forecasted that will be presented and discussed in more detail in **Chapter 4**.

Chapter 4

Forecasts by Facility

This chapter summarizes the development of the forecasts of future year transactions and toll revenue for the MDTA system. Separate sections and discussions are provided for the overall assumptions, the Legacy facilities, ICC, I-95 ETLs, and other revenue. The 10-year annual forecast results by facility through FY 2031 are included in this chapter. Monthly forecasts for FY 2023 and FY 2024 are also included.

4.1 Assumptions

Transaction and revenue forecasts were predicated upon the following basic assumptions, which are considered reasonable by CDM Smith for purposes of the forecast:

1. The MDTA toll facilities and approach roads will continue to be well-maintained and effectively signed;
2. No competing highway projects other than those identified in this report will be constructed or significantly improved during the forecast period;
3. MDTA will continue to operate within its business rules and practices;
4. For the purposes of this forecast, it is assumed that no toll rate or toll schedule adjustments will be made during the forecasting period other than those presented in **Chapter 1**;
5. Annual revenue estimates are expressed in future year dollars (nominal);
6. No major recession, natural disasters, future pandemics, or other significant exogenous events will occur that would significantly reduce travel in the region;
7. Socioeconomic growth, including related to population and employment, will occur as presented in this study; and
8. Motor fuel will remain in adequate supply, and future price increases will not significantly exceed the long-term rate of inflation.

Any significant departure from these basic assumptions could materially affect forecasted transactions and toll revenue.

Detailed Assumptions

In addition to the basic assumptions listed above, several other more specific assumptions were made as provided in **Table 4-1**.

Table 4-1
Detailed Forecast Assumptions

Assumption Category	Assumption Detail
COVID-19 Impacts	Slightly more negative impacts were assumed on the ICC, I-95 ETLs, and passenger cars on non-harbor crossing facilities based on most recent trends. A near-term positive Legacy System commercial vehicle impact was assumed to account for greater than anticipated volumes through FY 2022.
Construction	Rehabilitation of Decks at the Curtis Creek Bascule Span Approaches pushed from Spring of 2025 to Fall of 2029, duration of subgrade improvements east of Bear Creek was reduced from 24 months to 18 months, and the FSK bridge deck replacement was moved up from spring of 2026 to summer of 2025. For the I-95 ETLs, the northbound extension was included with the addition of I-695 direct connectors. The opening date for these ramps was assumed to occur simultaneously with phase 2 of the extension.
Backlogged E-ZPass Transactions	A share of remaining backlogged E-ZPass transactions and revenue will be processed by October 2022 based on information provided by MDTA on 8/23/2022.
Backlogged Video Transactions	A share of remaining backlogged video transactions and revenue will be processed and invoiced within FY 2023 based on information provided by MDTA on 8/23/2022. Reduced collection rates were assumed for backlog video transactions.
NOTD Collection Rates	Collection rates for video transactions were updated based on the latest monthly collection trends provided by MDTA through FY 2022, which accounts for potential delays in collected toll revenue due to the impacts of the customer assistance plan. Collection rates are assumed to return to historical averages by FY 2025.
Customer Assistance Plan/ Civil Penalties	On 2/24/2022, the MDTA board approved the customer assistance plan which applied a civil penalty waiver grace period and ceased referring toll bills to MVA and CCU through 11/30/22. No civil penalty collection was assumed on NOTDs issued prior to FY 2023.
Pay-by-Plate and Early Pay NOTD Payment Options	Pay-by-plate and early pay NOTD assumptions were updated based on latest trends through FY 2022. The shares were kept constant through the forecast until more data is available to identify growth potential.
New Vehicle Classifications	Assumed the new motorcycle, 3-axle light, and 4-axle light vehicle classifications and toll rates will go into effect later in FY 2023.
Toll Changes	No future toll rate changes are assumed.
Forecasting Approach	All transactions and toll revenue as well as civil penalty revenue are forecasted in the month of collection (cash accounting).

As discussed previously in **Chapter 1**, several business rules were changed in FY 2021 due to the COVID-19 pandemic that led to additional assumptions for this forecast related to the backlogged transactions and civil penalty collections in FY 2022. Assumptions related to the construction projects listed in **Table 4-1** are discussed in more detail later in this chapter.

4.2 Legacy System

This section provides an overview of the development of the traffic and toll revenue forecasts for the Legacy system. The inputs to the forecast included toll rates by payment method, traffic growth forecasts, E-ZPass® participation percentages, and the impacts associated with planned roadway improvements on the Legacy facilities.

4.2.1 Forecast Methodology

Econometric models were developed for the Legacy system traffic growth forecasts and summarized previously in **Chapter 3**. The econometric models sought to establish correlative relationships between various socioeconomic independent variables (such as population, employment, GRP, etc.) and the dependent variable, transactions. The traffic growth used in this current study is based on the growth from the econometric analysis with adjustments as

necessary to account for the most recent traffic and economic trends related to inflation and gas prices, long-term pandemic-related commuting trend changes, as well as construction impacts summarized in the subsequent section. Passenger car and commercial vehicle transactions were forecasted independently by facility using these growth rates and by benchmarking to actual pre-COVID-19 trends.

Assumptions including those related to construction impacts, the Pay-by-Plate and Early Pay NOTD payment programs, and new toll rates for some vehicle classifications were then applied to the estimated normal growth rates. The end-product of the model was a baseline 10-year forecast of transactions and revenue by facility, by vehicle class (passenger cars and commercial vehicles), and by method of payment (electronic, video, and cash) without COVID-19 impacts and without cashless tolling. These results were then processed through a “Waterfall” analysis spreadsheet model developed by CDM Smith to estimate the impacts of cashless tolling, including leakage and violation processing. Video and ITOL revenue were then adjusted using a spreadsheet model to account for the changes in MDTA business rules and NOTD mailing of the backlog transactions listed in **Table 4-1**. Finally, transactions and revenue by facility, vehicle class, and payment type from the different files were adjusted using forecasted COVID-19 impact factors to account for recovery from ongoing impacts on traffic and travel patterns related to the pandemic.

4.2.2 Construction Impacts

The major construction projects expected to impact traffic and revenue on the MDTA Legacy system are described below. In reviewing these projects and estimating the traffic impacts, it was estimated that during the construction periods, some traffic would divert to the next best alternative tolled or toll-free crossing if possible, while a small portion of more discretionary trips would be suppressed.

1. **Eastbound Span of William Preston Lane, Jr Memorial Bridge (US-50)** – This project will rehabilitate the deck of the eastbound span of the William Preston Lane (Bay) Bridge. Construction is scheduled to take three years, and the anticipated construction start time is Fall 2022. Major construction will be performed primarily during off-peak night closures which are anticipated to begin Spring of 2023. Preliminary completion is estimated for Fall 2025.
2. **Subgrade Improvements east of Bear Creek, Francis Scott Key (I-695)** - This project involves drainage repairs and replacement, major roadway subgrade improvements, and roadway paving necessary to address ongoing road and barrier settlement. The project is scheduled to begin in the Spring of 2023. Construction will require long term closure of one direction of I-695 (two lanes) and placing single lane contra flow traffic in the other travel direction. Once the improvements on the closed side are complete, traffic will be switched on to the completed roadway while the other side will be closed to perform improvements. The estimated construction duration is 18 months. For this study, construction was assumed to begin to April 2023.
3. **Rehabilitation of Decks at Curtis Creek Bascule Span, Francis Scott Key Bridge (I-695)** – This project involves replacing the deck of the approach spans of the bascule spans of both inner loop and outer loop bridges of the Curtis Creek bridge. The project is scheduled to begin in the fall of 2029. Construction will require long term closure of one direction of I-695 and placing

contra flow traffic in the other travel direction. Once the deck replacement of the closed side is complete, traffic will be switched on to the completed deck while the other side will be closed to perform deck replacement. The estimated construction duration is 18 months. For this study, this project was assumed to begin after the completion of the subgrade improvements east of Bear Creek.

4. **Francis Scott Key Bridge Deck Replacement** - This project involves replacing the deck for the entire length of the bridge as well as the installation of fiberglass jacket protection system at the water pier columns. This project is scheduled to begin the summer of 2025. Construction will require long term closure of one direction of I-695 and placing contra flow traffic in the other travel direction. Once the deck replacement of the closed side is complete, traffic will be switched on to the completed deck while the other side will be closed to perform deck replacement. The estimated construction duration is 30 months.
5. **Replacement of I-895 over I-695 Bridge** - This project proposes to replace the two existing I-895 four simple span steel stringer bridges with two span continuous steel girder bridges crossing over I-695 in Lansdowne, within Baltimore County Maryland. Additional work will include replacement of existing traffic barriers and resurfacing of the roadway within the project limits. One lane will be maintained in each direction utilizing one bridge while constructing the other bridge. Construction will occur on the I-895 southbound bridge first and then on the northbound bridge. Temporary crossovers for the traffic shift and temporary concrete barriers between the two travel directions will both be used. The ramp from the I-695 outer loop to I-895 northbound will be closed when the I-895 northbound bridge is under construction. Traffic will be detoured to continue on the I-695 outer loop, use the exit to MD 295 northbound, and then to get back on I-895 northbound. Construction is anticipated to begin in 2024 and continue for three years.
6. **Baltimore Harbor Tunnel (I-895) AET Conversion** - This project supports the recent conversion of the facility to cashless tolling by permanently removing the existing toll plaza and installing a gantry tolling system. The project scope also includes geometric improvements to the adjacent interchange ramps at Childs Street, Frankfurst Avenue, and Shell Road to comply with AASHTO standards, as well as removal and replacement of the Shell Road ramp, Frankfurst Avenue, and access road bridge structures along I-895. The project is tentatively scheduled to begin construction in 2025 with an estimated construction duration of 3 years. For this study, construction was assumed to begin April 2025.
7. **I-95 ETL Northbound Extension** - This project will involve the widening and reconstruction of I-95 northbound from MD 43 to north of MD 24 to accommodate two new ETL lanes in the northbound direction. The lane configuration from MD 43 to MD 24 will be four general purpose lanes and two ETLs. From MD 24 northbound the configuration will be three general purpose lanes and two ETLs. The ETLs will transition to a single lane ETL and then run concurrent to the three GP lanes until the four lanes transition back to three lanes in advance of the MD 136/Calvary Road Overpass approximately two miles north of MD 24. The completion of construction through the MD 152 Interchange is scheduled for the summer of 2024. The completion of construction through the MD 24 Interchange is scheduled for fall of 2027. Coinciding with the completion of the northbound extension, direct connectors from I-695 eastbound and westbound to I-95 northbound will open as well. Upon completion of the program, there will be three northbound

tolling zones on the I-95 ETLs between the I-95/895 split and MD 24: from the I-95/895 split to MD 43, MD 43 to MD 152, and MD 152 to MD 24.

Additional construction projects on the MDTA facilities and competing non-MDTA highways and arterials were also reviewed, but it was determined that the construction activity associated with these projects will result in negligible impacts on MDTA traffic and toll revenue.

4.2.3 Forecast Results

Table 4-2 presents actual collected transactions and toll revenue for the Legacy system for FY 2022 and forecasted collected transactions and toll revenue for FY 2023 through FY 2032 by passenger cars and commercial vehicles. The forecasts reflect collections after assumed reductions due to unbillable and unpaid trips. **Table 4-3** provides historical and forecasted total transactions and toll revenue for the Legacy system by facility. FY 2023 transactions and revenue are forecasted to decrease over FY 2022 due to reduced collections of backlogged transactions, as all transactions are anticipated to be invoiced by the middle of FY 2023. Transactions and revenue are forecasted to return to levels generally more consistent with pre-pandemic conditions after FY 2023. Some declines are forecasted to occur in FY 2026 to FY 2027 due to the construction planned for the I-696/Francis Scott Key Bridge and I-895/Baltimore Harbor Tunnel facilities as detailed previously in **Section 4.2.2**. These projects are forecasted to cause diversion to other MDTA Legacy facilities and some diversion off the MDTA system from customers foregoing trips or using non-tolled alternatives. These changes can be observed in **Table 4-3**. After FY 2027, transactions and revenue are not assumed to be impacted by such large construction projects and reflect expected normal growth through the end of the forecast period in FY 2032.

For purposes of budgeting and the tracking of actual versus forecasted transactions and revenue, monthly forecasts of transaction and toll revenue were developed for FY 2023 and FY 2024.

Table 4-4 provides the forecasted monthly transactions and **Table 4-5** provides the forecasted monthly toll revenue for the total Legacy system. Actual July 2022 data is shown for both transactions and revenue. All other monthly data presented in these tables is forecasted.

Table 4-2
Total Legacy System Forecasted Transactions and Toll Revenue Collected by Class

Fiscal Year	Transactions (Millions) ⁽¹⁾			Toll Revenue (\$ Millions) ⁽¹⁾		
	PC	CV	Total	PC	CV	Total
2022 ⁽²⁾	109.3	10.7	120.0	413.6	265.4	679.0
2023	101.3	9.8	111.1	371.8	242.5	614.3
2024	100.6	9.5	110.1	369.5	234.1	603.6
2025	102.0	9.5	111.5	372.3	233.6	605.9
2026	100.2	9.5	109.8	367.1	234.9	602.1
2027	101.0	9.6	110.6	369.8	236.2	606.0
2028	104.0	9.7	113.7	379.2	237.8	617.0
2029	106.9	9.8	116.7	388.0	239.6	627.6
2030	106.5	9.8	116.3	388.4	240.8	629.2
2031	107.2	9.9	117.0	391.1	241.9	633.0
2032	109.3	9.9	119.2	396.0	243.0	639.0

⁽¹⁾ Includes impacts due to leakage, including unpaid transactions.

⁽²⁾ Represents actual data.

Table 4-3
Legacy System Historical and Forecasted Transactions and Toll Revenue Collected by Facility

Fiscal Year ⁽¹⁾	Transactions (Millions) ⁽⁵⁾								Percent Growth
	JFK	Hatem	BHT	FMT	FSK	Bay	Nice	Total ⁽²⁾	
2016 ^(3,4)	15.2	5.1	28.3	42.6	11.2	13.3	3.4	119.0	2.8
2017	15.5	5.1	27.6	45.4	11.3	13.6	3.4	122.0	2.5
2018	15.5	5.1	28.0	44.7	11.4	13.5	3.3	121.5	(0.3)
2019	15.2	5.1	20.8	48.2	12.8	13.6	3.3	119.1	(2.0)
2020 ⁽³⁾	12.5	4.4	14.2	42.3	11.9	11.5	2.8	99.6	(16.4)
2021	8.8	3.1	11.9	29.0	8.4	8.5	1.7	71.5	(28.3)
2022	15.7	4.5	26.0	43.4	12.2	14.8	3.4	120.0	68.0
2023	14.2	4.7	27.5	40.8	9.0	12.1	2.7	111.1	(7.5)
2024 ⁽³⁾	14.0	4.8	30.3	41.0	5.4	12.0	2.7	110.1	(0.8)
2025	14.2	4.8	26.0	42.8	8.9	12.0	2.8	111.5	1.2
2026	14.3	4.9	21.2	46.3	8.0	12.4	2.8	109.8	(1.5)
2027	14.4	4.9	21.5	46.6	8.0	12.4	2.8	110.6	0.8
2028 ⁽³⁾	14.4	4.9	25.9	44.2	9.0	12.4	2.9	113.7	2.8
2029	14.5	4.9	29.1	42.5	10.3	12.5	2.9	116.7	2.6
2030	14.6	4.9	31.3	42.9	7.2	12.5	2.9	116.3	(0.4)
2031	14.7	4.9	31.9	43.2	6.9	12.5	2.9	117.0	0.6
2032	14.7	4.9	30.0	43.5	10.5	12.6	3.0	119.2	1.8
Fiscal Year ⁽¹⁾	Toll Revenue (\$ Millions) ⁽⁵⁾								Percent Growth
	JFK	Hatem	BHT	FMT	FSK	Bay	Nice	Total ⁽²⁾	
2016 ^(3,4)	\$171.2	\$11.8	\$89.9	\$191.3	\$43.3	\$52.8	\$21.2	\$581.4	2.8
2017	175.8	12.1	89.5	204.2	44.9	54.0	21.5	601.9	3.5
2018	177.2	11.6	91.4	205.1	45.9	53.4	20.7	605.3	0.6
2019	176.0	12.2	70.3	217.4	50.5	53.7	21.0	601.1	(0.7)
2020 ⁽³⁾	154.1	11.4	47.5	194.3	47.5	46.0	17.3	518.2	(13.8)
2021	117.2	9.2	39.8	141.5	35.7	33.0	10.8	387.4	(25.2)
2022	197.0	18.3	95.7	225.6	55.9	61.9	24.7	679.0	75.3
2023	182.7	12.7	97.3	208.8	41.9	51.4	19.5	614.3	(9.5)
2024 ⁽³⁾	179.3	11.9	107.4	207.5	27.6	50.5	19.4	603.6	(1.7)
2025	179.7	11.9	91.7	212.2	40.2	50.6	19.6	605.9	0.4
2026	180.8	12.0	75.6	225.2	36.7	52.1	19.8	602.1	(0.6)
2027	181.9	12.0	76.6	226.5	37.0	52.2	19.9	606.0	0.7
2028 ⁽³⁾	182.9	12.0	91.1	217.8	40.8	52.4	20.1	617.0	1.8
2029	183.9	12.1	101.3	211.6	46.0	52.5	20.2	627.6	1.7
2030	184.9	12.1	108.5	212.9	37.8	52.7	20.4	629.2	0.3
2031	185.9	12.1	110.3	214.1	37.2	52.8	20.5	633.0	0.6
2032	186.8	12.2	104.3	215.4	46.7	53.0	20.7	639.0	1.0

⁽¹⁾ Actual data presented for FY 2016 through FY 2022.

⁽²⁾ Summations may not equal total due to rounding.

⁽³⁾ Leap Year

⁽⁴⁾ Year of toll decrease.

⁽⁵⁾ Includes impacts due to leakage, including unpaid transactions.

Table 4-4
Monthly Collected Transactions by Method of Payment
FY 2023 and FY 2024

Month	Passenger Cars (2-Axle)					Commercial Vehicles (3+ Axle)				Total ⁽¹⁾
	Commuters & Shoppers	MD E-ZPass	Full Fare E-ZPass	Video	Official Duty	Hattem Plan A & B	Total 2-Axle	E-ZPass	Video	Total 3+ Axle
FY 2023										
July	1,661	3,440	2,607	1,168	0.152	0.263	9,290	0.833	0.065	0.898
August	2,107	2,724	2,345	1,607	0.088	0.327	9,199	0.779	0.061	0.840
September	2,045	2,622	1,887	1,709	0.092	0.315	8,670	0.761	0.066	0.826
October	2,264	2,510	2,012	1,700	0.102	0.311	8,900	0.774	0.066	0.839
November	2,025	2,575	1,998	1,319	0.086	0.293	8,296	0.754	0.052	0.805
December	1,965	2,622	2,101	1,295	0.083	0.291	8,356	0.753	0.051	0.804
January	2,111	2,335	1,562	1,215	0.088	0.284	7,595	0.724	0.048	0.772
February	1,925	2,296	1,532	1,072	0.083	0.271	7,179	0.676	0.041	0.717
March	2,226	2,334	1,926	1,162	0.102	0.329	8,078	0.773	0.044	0.817
April	2,161	2,336	2,268	1,259	0.094	0.319	8,436	0.744	0.046	0.791
May	2,156	2,467	2,202	1,337	0.091	0.333	8,586	0.795	0.049	0.844
June	2,034	2,560	2,237	1,439	0.089	0.327	8,685	0.780	0.053	0.833
FY TOTAL	24,678	30,820	24,676	16,281	1.150	3.664	101,270	9.145	0.641	9.787
FY 2024										
July	2,088	2,705	2,357	1,486	0.090	0.321	9,048	0.720	0.053	0.774
August	2,064	2,731	2,396	1,523	0.087	0.336	9,137	0.776	0.055	0.831
September	1,988	2,628	1,913	1,488	0.090	0.319	8,427	0.733	0.054	0.787
October	2,226	2,503	2,033	1,409	0.101	0.322	8,594	0.780	0.051	0.830
November	1,973	2,561	2,037	1,318	0.085	0.301	8,274	0.750	0.047	0.797
December	1,912	2,591	2,142	1,274	0.081	0.293	8,294	0.727	0.045	0.773
January	2,080	2,355	1,593	1,208	0.088	0.296	7,620	0.738	0.044	0.781
February	1,961	2,366	1,618	1,134	0.084	0.289	7,452	0.700	0.041	0.741
March	2,156	2,315	1,968	1,209	0.099	0.328	8,075	0.733	0.044	0.776
April	2,115	2,325	2,289	1,288	0.092	0.332	8,441	0.773	0.047	0.820
May	2,111	2,471	2,261	1,354	0.090	0.343	8,631	0.794	0.049	0.843
June	1,960	2,528	2,268	1,440	0.086	0.326	8,609	0.740	0.052	0.792
FY TOTAL	24,635	30,080	24,875	16,131	1.073	3.807	100,601	8.963	0.581	9.544

⁽¹⁾ Includes impacts due to leakage, including unpaid transactions. Summations may not equal total due to rounding.

Table 4-5
Monthly Collected Toll Revenue by Method of Payment
FY 2023 and FY 2024

Month	Passenger Cars (2-Axle)							Commercial Vehicles (3+ Axle)				Total ⁽¹⁾
	Commuters & Shoppers	MD E-ZPass	Full Fare E-ZPass	Video	Official Duty	Hatem Plan A & B	Total 2-Axle	E-ZPass	Video	Total 3+ Axle		
FY 2023												
July	\$ 2,539	\$ 11,134	\$ 13,410	\$ 8,050	\$ -	\$ -	\$ 35,134	\$ 20,388	\$ 2,000	\$ 22,388	\$ 57,522	
August	3,011	8,671	11,846	10,413	-	-	33,941	18,822	1,882	20,705	54,646	
September	2,999	8,484	9,764	11,275	-	-	32,523	18,428	2,084	20,512	53,034	
October	3,352	8,271	10,496	11,303	-	-	33,422	18,895	2,118	21,012	54,435	
November	2,918	8,259	10,205	8,896	-	-	30,278	18,314	1,725	20,039	50,317	
December	2,804	8,328	10,671	8,739	-	-	30,542	18,220	1,702	19,922	50,465	
January	3,176	7,748	8,223	8,216	-	-	27,363	17,544	1,584	19,128	46,492	
February	2,828	7,512	7,931	7,240	-	-	25,511	16,384	1,329	17,713	43,224	
March	3,305	7,671	9,995	7,757	-	-	28,728	18,720	1,380	20,100	48,828	
April	3,141	7,528	11,700	8,452	-	-	30,822	18,085	1,448	19,533	50,355	
May	3,128	7,951	11,310	8,994	-	-	31,383	19,370	1,542	20,912	52,295	
June	2,911	8,182	11,318	9,692	-	-	32,102	18,926	1,652	20,578	52,680	
FY TOTAL	\$ 36,111	\$ 99,741	\$ 126,871	\$ 109,027	\$ -	\$ -	\$ 371,750	\$ 222,096	\$ 20,446	\$ 242,542	\$ 614,293	
FY 2024												
July	\$ 3,011	\$ 8,682	\$ 12,033	\$ 10,079	\$ -	\$ -	\$ 33,805	\$ 17,335	\$ 1,662	\$ 18,997	\$ 52,803	
August	2,954	8,693	12,062	10,315	-	-	34,024	18,662	1,705	20,367	54,391	
September	2,921	8,511	9,896	10,069	-	-	31,397	17,612	1,665	19,277	50,674	
October	3,301	8,247	10,538	9,495	-	-	31,581	18,869	1,565	20,434	52,014	
November	2,851	8,227	10,365	8,869	-	-	30,313	18,119	1,451	19,570	49,883	
December	2,737	8,262	10,869	8,552	-	-	30,420	17,543	1,390	18,933	49,353	
January	3,133	7,806	8,335	8,123	-	-	27,397	17,757	1,343	19,100	46,497	
February	2,890	7,762	8,346	7,616	-	-	26,614	16,873	1,253	18,126	44,740	
March	3,209	7,638	10,244	8,064	-	-	29,155	17,675	1,324	18,998	48,154	
April	3,074	7,475	11,698	8,643	-	-	30,891	18,635	1,422	20,057	50,949	
May	3,070	7,980	11,600	9,111	-	-	31,761	19,255	1,502	20,757	52,518	
June	2,814	8,108	11,485	9,709	-	-	32,115	17,893	1,592	19,485	51,600	
FY TOTAL	\$ 35,967	\$ 97,392	\$ 127,470	\$ 108,645	\$ -	\$ -	\$ 369,474	\$ 216,230	\$ 17,872	\$ 234,102	\$ 603,576	

⁽¹⁾ Includes impacts due to leakage, including unpaid transactions. Summations may not equal total due to rounding.

4.3 Intercounty Connector

4.3.1 Forecast Methodology and Assumptions

Base ICC annual collected trip and toll revenue forecasts were made using a review and analysis of the most recent historical trends (pre-pandemic) and adjusting base growth rates estimated in the most recent previous ICC forecast update, as necessary. Additionally, updated COVID-19 impact factors were applied to the resulting base forecasts. Estimated trips and revenue reflects collected toll revenue by MDTA after assumed reductions due to leakage of unbillable and unpaid trips. The forecasts reflect the assumptions listed in **Section 4.1**, including those listed in **Table 4-1** related to MDTA business rules, such as NOTD invoicing, new payment methods, and new classifications.

Related to other projects that may potentially impact the ICC, previous sketch-level modeling of the impacts of the Maryland I-495 and I-270 Managed Lanes Traffic Relief Plan (TRP) on the ICC showed the potential for impacts on ICC traffic. The TRP is broken down into multiple phases. On May 12, 2021 the recommended preferred alternative (RPA) for the TRP program was announced to be American Legion Bridge I-270 to I-370 (Phase 1 South). This 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. No action was taken on the remainder of I-495 east of the I-270 eastern spur. Based on sketch-level modeling, Phase 1 South is not anticipated to have any negative impacts on the ICC forecast projections and could instead have a positive impact. In the future should other phases of the TRP program advance, the potential impacts would need to be monitored. Sketch-level modeling has shown that the ICC appeared to be negatively impacted by priced managed lanes on the I-495 north beltway between I-270 and I-95, as this section of I-495 is parallel to and serves as an alternative route to the ICC for some trips.

4.3.2 Forecast Results

Table 4-6 provides the Intercounty Connector actual collected trips and revenue for FY 2022 and the forecasted collected trips and revenue for FY 2023 through FY 2032, by ETC and video. Due to the changes in MDTA business rules discussed previously in the Legacy section, ETC and video transactions and revenue are forecasted to decrease in FY 2023 over FY 2022 but will be back to normal levels by FY 2024 and remain stable through the end of the forecast in FY 2032.

For purposes of budgeting and the tracking of actual versus forecasted transactions and revenue, monthly forecasts of transaction and toll revenue were developed for FY 2023 and FY 2024.

Table 4-7 presents the Intercounty Connector monthly forecasted trips and collected toll revenue for FY 2023 and FY 2024. Actual July 2022 data is shown for transactions and revenue. All other monthly data presented in this table is forecasted.

Table 4-6
Intercounty Connector Forecasted Collected Annual Trips and Collected Toll Revenue

Fiscal Year	Trips (Millions) ⁽¹⁾			Toll Revenue (\$ Millions) ⁽¹⁾		
	E-ZPass	Video	Total	E-ZPass	Video	Total
2022 ⁽²⁾	36.7	4.8	41.5	71.4	13.5	84.9
2023	31.3	2.6	33.9	56.0	7.6	63.5
2024	33.3	2.4	35.8	58.4	7.2	65.6
2025	34.5	2.6	37.2	60.5	7.7	68.2
2026	36.8	2.8	39.6	64.5	8.2	72.7
2027	37.6	2.8	40.4	65.8	8.4	74.2
2028	38.3	2.9	41.2	67.1	8.6	75.6
2029	39.1	3.0	42.0	68.4	8.7	77.1
2030	39.8	3.0	42.9	69.8	8.9	78.7
2031	40.5	3.1	43.5	70.8	9.0	79.9
2032	41.1	3.1	44.2	71.9	9.2	81.1

⁽¹⁾ Includes impacts due to leakage, including unpaid transactions.

⁽²⁾ Represents actual data.

Table 4-7
Intercounty Connector Forecasted Collected Monthly Trips and Collected Toll Revenue

Month	Trips (Millions) ⁽¹⁾				Toll Revenue (\$ Millions) ⁽¹⁾			
	PC E-ZPass	CV E-ZPass	Video	Total	PC E-ZPass	CV E-ZPass	Video	Total
FY 2023								
July	2.217	0.084	0.369	2.670	\$ 3.917	\$ 0.611	\$ 1.057	\$ 5.584
August	2.628	0.088	0.235	2.950	4.232	0.576	0.661	5.469
September	2.661	0.091	0.251	3.003	4.429	0.678	0.715	5.822
October	2.822	0.097	0.252	3.171	4.689	0.718	0.716	6.122
November	2.505	0.073	0.202	2.780	4.034	0.481	0.579	5.094
December	2.359	0.070	0.196	2.625	3.800	0.462	0.561	4.822
January	2.225	0.064	0.181	2.470	3.580	0.410	0.521	4.511
February	2.145	0.063	0.166	2.373	3.451	0.402	0.481	4.334
March	2.671	0.082	0.175	2.928	4.298	0.522	0.511	5.331
April	2.618	0.080	0.186	2.884	4.212	0.512	0.546	5.271
May	2.781	0.085	0.201	3.068	4.476	0.547	0.591	5.613
June	2.721	0.087	0.216	3.025	4.378	0.560	0.637	5.575
FY TOTAL	30.353	0.965	2.630	33.949	\$ 49.496	\$ 6.478	\$ 7.575	\$ 63.548
FY 2024								
July	2.677	0.085	0.222	2.984	\$ 4.307	\$ 0.545	\$ 0.625	\$ 5.478
August	2.791	0.094	0.227	3.113	4.491	0.605	0.659	5.756
September	2.658	0.078	0.226	2.961	4.276	0.500	0.669	5.446
October	2.915	0.090	0.217	3.221	4.690	0.577	0.662	5.929
November	2.664	0.079	0.201	2.944	4.287	0.506	0.617	5.410
December	2.469	0.073	0.191	2.733	3.973	0.470	0.581	5.024
January	2.401	0.071	0.180	2.652	3.863	0.456	0.542	4.861
February	2.375	0.071	0.176	2.621	3.821	0.452	0.541	4.814
March	2.754	0.082	0.183	3.020	4.432	0.528	0.529	5.489
April	2.860	0.092	0.195	3.146	4.601	0.588	0.544	5.733
May	2.954	0.092	0.208	3.254	4.754	0.588	0.590	5.932
June	2.806	0.088	0.221	3.115	4.515	0.566	0.624	5.705
FY TOTAL	32.323	0.997	2.445	35.764	\$ 52.009	\$ 6.384	\$ 7.184	\$ 65.577

⁽¹⁾ Includes impacts due to leakage, including unpaid transactions.

4.4 I-95 ETLs

4.4.1 Forecast Methodology and Assumptions

The I-95 ETL forecasts were made using a spreadsheet modeling methodology. The spreadsheet model was calibrated to actual pre-COVID-19 I-95 ETL traffic and revenue performance and was then used to forecast future traffic and revenue for the existing ETL section and the future ETL extensions.

To develop the I-95 ETL forecast spreadsheet model, a series of counts were first obtained from the Maryland ITMS count monitoring site to produce a 2019 average weekday traffic profile. The profile was balanced to 2019 levels so to provide a “normal” traffic profile excluding any impacts of the COVID-19 pandemic. The balanced traffic profile and speed data from INRIX were used to calibrate the tolling algorithms built into the spreadsheet model and to recognize the different peaking patterns by time of day and direction. Similar to a full travel demand model for a priced managed lane forecast, the spreadsheet model tolling algorithm considered value of time, toll rates, travel time savings, and travel time reliability to estimate demand for the ETL.

Once the spreadsheet model was calibrated, it was used to develop the 10-year forecast. The I-95 ETL forecast used the assumptions described in **Section 4.1**, including the detailed assumptions related to methods of payment and vehicle classifications. Also included for the I-95 ETL forecast was the assumption of the future northbound extension. This project will include widening and construction of the I-95 ETLs northbound from MD 43 to beyond MD 24 to accommodate two ETL lanes and I-695 direct connectors as detailed in the construction impacts discussion within **Section 4.2**. A schematic showing the I-95 ETL extensions is included in **Chapter 1**. A baseline growth forecast was applied to estimate future volumes on the corridor. Based on the calibrated settings within the model, the future year models estimated what percent of traffic will choose to use the ETLs based on capacity, estimated future speeds within the corridor, value of time, toll rates, and travel time reliability. The spreadsheet model was developed without COVID-19 impacts which were then applied to the forecast results as a post-processing adjustment.

4.4.2 Forecast Results

Table 4-8 provides the forecasted annual trips and toll revenue for the total of the existing section and planned extensions of the I-95 ETLs, including the I-695 direct connectors. Access changes to and from the ETLs are planned with the opening of the extensions

Table 4-8
I-95 ETL Total with Extensions Forecasted Collected Annual Trips and Toll Revenue

Fiscal Year	Trips (Millions) ⁽¹⁾			Toll Revenue (\$ Millions) ⁽¹⁾		
	E-ZPass	Video	Total	E-ZPass	Video	Total
2022 ⁽²⁾	8.6	0.4	9.0	13.2	0.9	14.1
2023	10.9	0.3	11.1	15.7	0.4	16.1
2024	11.6	0.3	11.9	16.8	0.4	17.2
2025 ⁽³⁾	12.0	0.3	12.3	18.9	0.5	19.4
2026	12.2	0.3	12.5	21.0	0.5	21.5
2027	12.8	0.3	13.1	22.2	0.6	22.8
2028 ⁽⁴⁾	14.7	0.4	15.1	26.5	0.7	27.2
2029	16.7	0.4	17.2	31.3	0.8	32.1
2030	17.6	0.5	18.0	33.0	0.8	33.9
2031	18.5	0.5	18.9	34.8	0.9	35.7
2032	19.4	0.5	19.9	36.7	0.9	37.7

⁽¹⁾ Includes impacts due to leakage, including unpaid transactions.

⁽²⁾ Represents actual data.

⁽³⁾ Phase 1 of northbound extension assumed opening on Jan 1, 2025.

⁽⁴⁾ Phase 2 of northbound extension and I-695 DCs assumed opening on Jan 1, 2028.

For purposes of budgeting and the tracking of actual versus forecasted trips and revenue, monthly forecasts of collected trips and toll revenue were developed for FY 2023 and FY 2024. **Table 4-9** provides the monthly forecasted collected trips and toll revenue for the I-95 ETLs by passenger car and commercial vehicle. Actual July 2022 data is shown for transactions and revenue. All other monthly data presented in this table is forecasted.

Table 4-9
I-95 ETL Forecasted Monthly Collected Trips and Toll Revenue

Month	Trips (Millions) ⁽¹⁾			Toll Revenue (\$ Millions) ⁽¹⁾		
	E-ZPass	Video	Total	E-ZPass	Video	Total
FY 2022						
July	0.739	0.038	0.777	1.124	0.090	1.214
August	0.985	0.025	1.010	1.400	0.054	1.454
September	0.845	0.022	0.867	1.201	0.046	1.248
October	0.990	0.025	1.015	1.407	0.054	1.461
November	0.951	0.024	0.975	1.352	0.052	1.404
December	0.948	0.024	0.973	1.348	0.052	1.400
January	0.710	0.018	0.728	1.009	0.039	1.048
February	0.819	0.021	0.840	1.164	0.045	1.209
March	0.860	0.022	0.882	1.222	0.047	1.269
April	1.021	0.026	1.047	1.451	0.056	1.506
May	0.997	0.026	1.023	1.418	0.055	1.472
June	0.983	0.025	1.009	1.398	0.054	1.451
FY TOTAL	10.848	0.297	11.145	\$ 15.492	\$ 0.643	\$ 16.135
FY 2023						
July	1.068	0.027	1.095	1.519	0.059	1.577
August	1.031	0.026	1.058	1.466	0.057	1.523
September	0.877	0.022	0.899	1.247	0.048	1.295
October	1.033	0.026	1.060	1.470	0.057	1.526
November	0.993	0.025	1.019	1.412	0.054	1.467
December	0.987	0.025	1.012	1.404	0.054	1.458
January	0.755	0.019	0.774	1.074	0.041	1.115
February	0.888	0.023	0.911	1.264	0.049	1.312
March	0.889	0.023	0.912	1.265	0.049	1.313
April	1.055	0.027	1.082	1.501	0.058	1.558
May	1.055	0.027	1.082	1.500	0.058	1.558
June	1.017	0.026	1.043	1.447	0.056	1.503
FY TOTAL	11.649	0.299	11.948	\$ 16.567	\$ 0.638	\$ 17.206

⁽¹⁾ Includes impacts due to leakage, including unpaid transactions.

4.5 Other Revenue

4.5.1 Forecast Methodology and Assumptions

In addition to collected toll revenue, MDTA also collects “Other Revenue” associated with the operation of its facilities. These have been summarized into the following categories:

1. Unused Commuter and Shoppers Plan Trips
2. Transponder Fees and Sales
 - a. Transponder sales
 - b. Monthly Service Fees
3. Hatem E-ZPass® program
4. Violation Recovery
5. Commercial Vehicle Fees and Discounts
 - a. Post-Usage Discount
 - b. Supplemental Rebate Plan
 - c. Over-Size Permit Fee

The following sub-sections provide a description of each of the other revenue categories that are considered in this forecast. Not that previously CDM Smith also included another category called concession revenue in the annual forecast update. At the direction of MDTA, in this forecast concession revenue is no longer included in other revenue.

Unused Commuter and Shoppers Plan Trips

MDTA provides customers the option to enroll in commuter plans which provide discounts for frequent trips. As discussed previously in **Chapter 1**, MDTA offers three different Commuter Plans based on the facilities included in the plan as well as a Shoppers Plan. All plans allow customers to purchase a large number of discounted trips that must be used in a specific time period. Any remaining balance after the time periods have expired is included in other revenue as “unused pre-paid trip revenue”.

Transponder Fees and Sales

As of May 23, 2018, the \$7.50 cost for the Standard E-ZPass® transponder was eliminated, while costs for the Exterior and Fusion transponders remained unchanged at \$15.00 and \$50.00, respectively. The Standard is the more typical windshield mounted transponder, the Exterior is mounted to a passenger car’s front license plate, and the Fusion is for commercial vehicles such as trucks and RVs.

Prior to July 1, 2015, account holders were subject to a monthly account fee of \$1.50. Accounts making three-or-more transactions per month were exempt from this fee, but any user with less than three transactions were charged. As of July 1, 2015, this monthly account fee was eliminated for Maryland E-ZPass® account holders. Monthly fees are still assessed on Maryland E-ZPass® accounts for out-of-state customers but were temporarily paused in FY 2022 as part of customer focused business rule changes. These fees were resumed in FY 2023 on August 10th, 2022.

Hatem E-ZPass® Program

The Hatem Bridge E-ZPass® Program provides drivers with two possible plan options. Choice A allows drivers with a two-axle vehicle to pay \$20 per year for unlimited trips plus a transponder fee without any additional fees or prepaid toll deposits. However, this plan allows the E-ZPass® to only be used on the Hatem Bridge, and cannot be used at other toll facilities or with other E-ZPass® discount plans. Choice B is an add-on to a standard Maryland E-ZPass® account. This allows drivers to pay \$20 per year for unlimited trips at the Hatem Bridge. There are associated account maintenance fees for non-Maryland accounts as well as a pre-paid toll balance, but this plan also gives drivers a discount off the base toll rate for two-axle vehicles at all Maryland toll facilities, excluding the Intercounty Connector and I-95 Express Toll Lanes, and can be combined with other discount plans. The discount provided is 37.5 percent for the Bay Bridge and 25 percent for all other facilities. Revenue associated with purchasing these plans is included in the other revenue.

Violation Recovery

Historical violation recovery data through FY 2022 have been provided by MDTA. Prior to FY 2016, “violation fees” were charged to drivers who chose not to initially pay their toll. Since video customers are no longer assessed “violations fees” but are instead assessed civil penalties if they do not pay their video tolls within 45 days, no estimates of future “violation fee” revenue for the Legacy facilities, the ICC and I-95 Express Toll Lanes are included in the other revenue forecast. Future forecasts of civil penalty revenue are based on the following assumptions:

- Civil penalties were reduced from \$50 to \$25 in FY 2021 for all transactions with civil penalties and will remain at \$25 for the duration of the forecast.
- Civil penalty collections in FY 2022 were impacted due to the MDTA customer assistance program which was initiated in February 2022 and will remain in place through November 2022. Civil penalty collections are assumed to be reduced in FY 2023 due to the delay in the assessment and payment of civil penalties after the customer assistance program expires.

Commercial Vehicles Fees and Discounts

There are two available discount programs for commercial vehicles with five-or-more-axles. The first plan is the post-usage plan, which is account specific and can be used on all eligible facilities. With this plan, each account is assessed after 30 days and the post-usage discount is calculated based on the total toll usage. The fee estimates for this program were developed from existing data and historical trends.

The other available discount plan is similar in that it is account specific and can be used on all eligible facilities. With this plan however, the account assessment after 30 days calculates the discount based on the total trips per transponder.

In addition to the two discount plans available to commercial vehicles, there is a fee for over-sized and/or overweight vehicles. As of May 1, 2009, a \$25 permit fee was charged and covered all MDTA maintained roadways along the vehicle’s route. This fee is a one-time charge and is not applied at any specific tolling location.

4.5.2 Forecast Results

Table 4-10 provides the historical and forecasted other revenue for the Legacy facilities, ICC, and I-95 ETLs. Historical data is shown for FY 2016 through FY 2022. Due to COVID-19 and the associated business rule changes, other revenue increased by 43 percent from FY 2021 to FY 2022. This is due to an increase in processing of the backlogged video transactions, leading to an increase in civil penalty collections in FY 2022 prior to the initiation of the customer assistance program. Other revenue is forecasted to decrease slightly in FY 2023 due to ongoing grace period for civil penalty collections from the customer assistance program. By FY 2024, civil penalties are forecasted to increase significantly as normal violation procedures are expected to be in place for the entire year.

Table 4-11 provides the FY 2023 and FY 2024 monthly other revenue forecast for the combined Legacy facilities, ICC, and I-95 ETLs.

Table 4-10
Other Revenue by Facility

Fiscal Year ⁽¹⁾	Legacy Facilities										Intercounty Connector & I-95 ETLs					Total Other Revenue ⁽³⁾
	Service Fees and Sales					Violation Recovery		Commercial Vehicles			Service Fees and Sales		Violation Recovery			
	Unused Pre-Paid Trip Revenue	Transponder Sales	Monthly Account Fees	Hatem E-Z Pass Program	Civil Penalties	Violation Fees	Post-Usage Discount	High Frequency Discount	Over-size Permit Fee	Transponder Sales	Monthly Account Fees	Violation Fees	Civil Penalties			
2016 ⁽²⁾	17.36	1.66	1.29	1.60	10.00	-	(6.39)	(1.06)	1.13	0.27	0.22	-	8.28	34.36		
2017	14.04	2.00	1.42	1.62	20.65	-	(6.79)	(1.16)	1.16	0.22	0.24	-	21.04	54.46		
2018	13.64	1.40	1.51	1.67	16.13	-	(7.91)	(1.29)	1.16	0.35	0.26	-	13.61	40.52		
2019	14.00	(0.60)	1.59	1.68	21.27	-	(8.58)	(1.20)	1.26	(0.10)	0.27	-	10.19	39.78		
2020	10.64	0.22	2.05	1.69	16.93	-	(8.63)	(1.30)	1.06	0.04	0.34	-	11.93	34.96		
2021	4.49	(0.12)	2.01	1.57	13.66	-	(6.76)	(0.84)	1.05	(0.00)	0.05	-	3.58	18.70		
2022	11.41	0.33	(0.32)	1.76	18.03	-	(10.87)	(1.02)	1.19	0.04	(0.04)	-	6.17	26.68		
2023	11.78	0.05	1.35	1.76	13.41	-	(8.84)	(1.02)	1.17	0.04	0.28	-	2.60	22.58		
2024	11.79	0.05	1.62	1.80	33.67	-	(8.77)	(1.01)	1.16	0.04	0.28	-	5.80	46.42		
2025	11.90	0.05	1.63	1.77	38.67	-	(8.93)	(1.03)	1.18	0.04	0.28	-	4.99	50.56		
2026	11.96	0.05	1.64	1.78	37.72	-	(8.98)	(1.04)	1.19	0.04	0.28	-	5.36	50.01		
2027	12.02	0.05	1.65	1.78	37.90	-	(9.02)	(1.04)	1.19	0.04	0.29	-	5.73	50.59		
2028	12.08	0.05	1.66	1.79	39.58	-	(9.07)	(1.05)	1.20	0.04	0.29	-	5.89	52.46		
2029	12.14	0.05	1.67	1.79	40.01	-	(9.11)	(1.05)	1.21	0.04	0.29	-	6.05	53.08		
2030	12.20	0.05	1.67	1.80	40.09	-	(9.16)	(1.06)	1.21	0.04	0.29	-	6.22	53.35		
2031	12.26	0.05	1.68	1.80	40.39	-	(9.20)	(1.06)	1.22	0.04	0.29	-	6.29	53.75		
2032	12.32	0.05	1.69	1.80	40.75	-	(9.25)	(1.07)	1.22	0.04	0.29	-	6.35	54.21		

Source: Historical data from MDTA

(1) FY 2016 - 2021 represents actual data.

(2) Year of select toll rate reductions.

(3) Summations may not match total due to rounding.

Table 4-11
Forecasted Monthly Other Revenue

Month	Total Other Revenue
FY 2023	
July	0.660
August	0.632
September	0.565
October	0.587
November	0.529
December	0.535
January	2.433
February	2.449
March	2.290
April	3.905
May	3.588
June	4.404
FY TOTAL	\$ 22.579
FY 2023	
July	3.787
August	3.882
September	3.907
October	4.579
November	4.479
December	4.525
January	3.557
February	3.404
March	3.675
April	3.404
May	3.372
June	3.853
FY TOTAL	\$ 46.423

Chapter 5

Total Forecast Results

This chapter provides a summary of the total MDTA system collected transactions/trips and revenue for all facilities. **Table 5-1** provides the total annual collected transactions for the Legacy system and total trips for the Intercounty Connector (ICC) and I-95 ETLs for FY 2022 actual and the FY 2023 to FY 2032 forecast.

Table 5-1
Total System Collected Transactions/Trips

Fiscal Year	Transactions (millions)				Percent Change
	Legacy	ICC	I-95 ETL	Total ⁽¹⁾	
2022 ⁽²⁾	120.0	41.5	9.0	170.5	-
2023	111.1	33.9	11.1	156.1	(8.4)
2024	110.1	35.8	11.9	157.9	1.1
2025	111.5	37.2	12.3	161.0	2.0
2026	109.8	39.6	12.5	161.9	0.6
2027	110.6	40.4	13.1	164.2	1.4
2028	113.7	41.2	15.1	170.0	3.6
2029	116.7	42.0	17.2	175.9	3.5
2030	116.3	42.9	18.0	177.2	0.7
2031	117.0	43.5	18.9	179.5	1.3
2032	119.2	44.2	19.9	183.3	2.1

⁽¹⁾ Summations may not equal total due to rounding.

⁽²⁾ Represents actual data.

Table 5-2 provides the total system collected revenue, summarized by Legacy system toll revenue, ICC toll revenue, I-95 ETL toll revenue, and other revenue for all MDTA facilities for FY 2022 actual and the FY 2023 to FY 2032 forecast.

Figure 5-1 provides a graphical representation of the share of transactions/trips by facility for the first year and last year of the 10-year forecast, FY 2023 and 2032. In FY 2023, the Legacy system is forecasted to account for 71 percent of total transactions and trips, and the I-95 ETLs are forecasted to account for the smallest share at seven percent. By FY 2032, due to comparatively higher growth rates on the ICC and I-95 ETLs, more significant recovery from the COVID-19 impacts, and the I-95 ETL extension, the Legacy system is forecasted to account for 65 percent of total transactions. ICC trips are forecasted to increase slightly from 22 to 24 percent, and the I-95 ETL trips are forecasted to increase to 11 percent by FY 2032.

Table 5-2
Total System Collected Toll and Other Revenue

Fiscal Year	Revenue (\$ millions)					Percent Change
	Legacy	ICC	I-95 ETL	Other ⁽¹⁾	Total ⁽²⁾	
2022 ⁽³⁾	679.0	84.9	14.1	26.7	804.7	-
2023	614.3	63.5	16.1	22.6	716.6	(10.9)
2024	603.6	65.6	17.2	46.4	732.8	2.3
2025	605.9	68.2	19.4	50.6	744.1	1.5
2026	602.1	72.7	21.5	50.0	746.3	0.3
2027	606.0	74.2	22.8	50.6	753.5	1.0
2028	617.0	75.6	27.2	52.5	772.3	2.5
2029	627.6	77.1	32.1	53.1	789.9	2.3
2030	629.2	78.7	33.9	53.4	795.1	0.7
2031	633.0	79.9	35.7	53.8	802.3	0.9
2032	639.0	81.1	37.7	54.2	812.0	1.2

⁽¹⁾ Includes Other Revenue from Legacy, ICC, and I-95 ETL. Does not include concession revenue.

⁽²⁾ Summations may not equal total due to rounding.

⁽³⁾ Represents actual data.

Figure 5-1
Share of Collected Transactions/Trips, FY 2023 and FY 2032

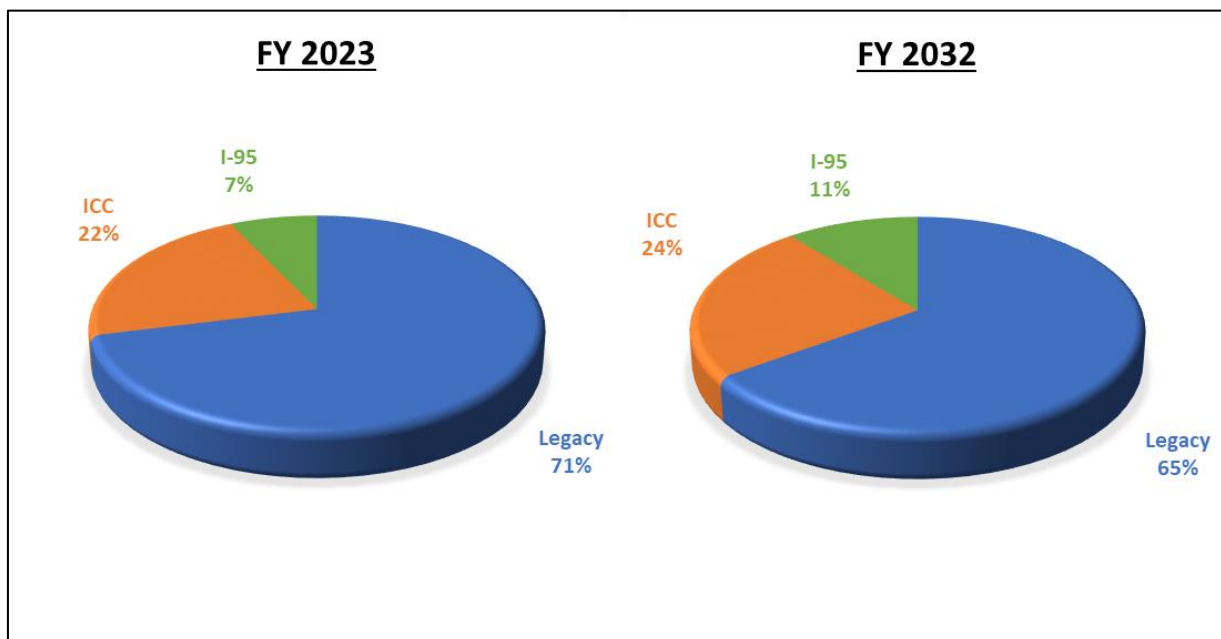


Figure 5-2 provides the same graphical representation for collected total revenue, separated by facility toll revenue and other revenue. Due to the higher share of transactions, the Legacy system also provides the highest share of total revenue and is forecasted to decrease from 86 percent in FY 2023 to 79 percent by FY 2032 for the same reasons as the transaction share changes. The ICC and I-95 ETLs will increase slightly from FY 2023 to FY 2032, while other revenue is forecasted to have the biggest increase in share of total revenue from three percent in FY 2023 to seven percent in FY 2032 due to the conversion to all cashless-tolling and forecasted corresponding increase in civil penalty revenue. However, it should be taken into account that FY 2023 other revenue will be lower than a typical year due to the customer assistance program which reduced the potential civil penalties that could be collected.

Figure 5-2
Share of Collected Total Revenue, FY 2023 and FY 2032

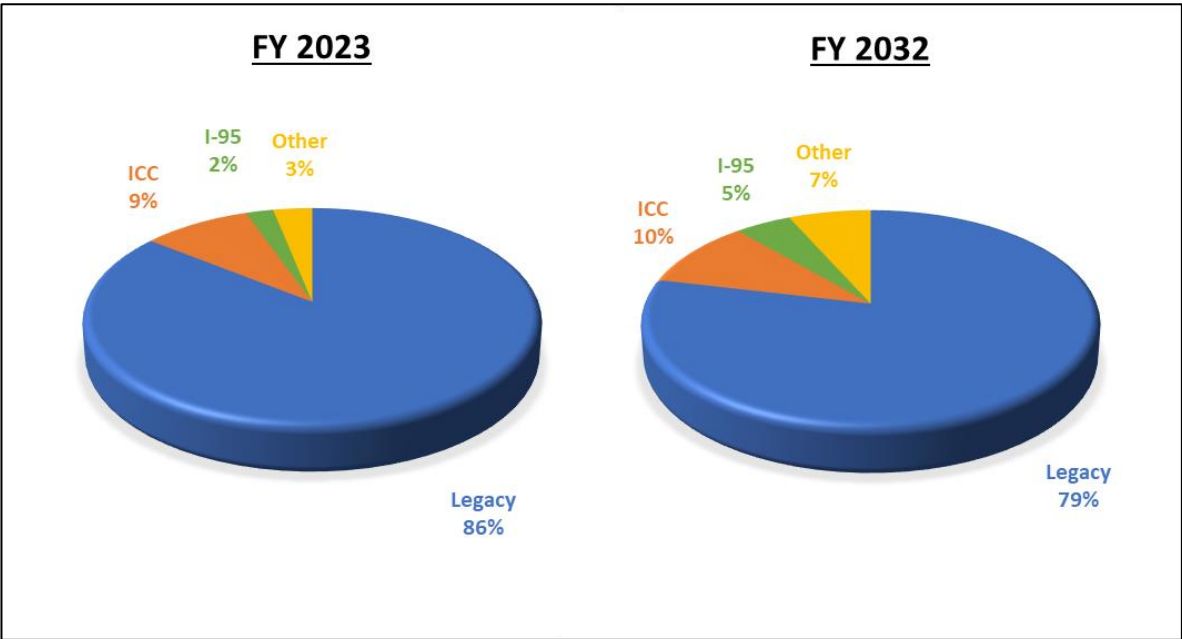


Table 5-3 summarizes the FY 2023 and FY 2024 monthly forecasted transactions, toll revenue, and other revenue for the combined Legacy system, ICC, and I-95 ETL's.

Table 5-3
Total System Collected Monthly Transactions, Toll Revenue, and Other Revenue

Month	Transactions (Millions) ⁽¹⁾	Revenue (\$ Millions) ⁽¹⁾⁽²⁾		
		Toll	Other	Total
FY 2023				
July	13.635	64.320	0.660	64.980
August	13.999	61.568	0.632	62.200
September	13.366	60.104	0.565	60.669
October	13.925	62.018	0.587	62.605
November	12.858	56.815	0.529	57.344
December	12.759	56.686	0.535	57.222
January	11.565	52.051	2.433	54.484
February	11.110	48.766	2.449	51.215
March	12.705	55.429	2.290	57.719
April	13.157	57.133	3.905	61.038
May	13.521	59.380	3.588	62.969
June	13.551	59.707	4.404	64.111
FY TOTAL	156.150	\$ 693.976	\$ 22.579	\$ 716.555
FY 2024				
July	13.900	59.857	3.787	63.645
August	14.138	61.670	3.882	65.552
September	13.073	57.414	3.907	61.320
October	13.706	59.470	4.579	64.049
November	13.033	56.760	4.479	61.239
December	12.813	55.835	4.525	60.360
January	11.827	52.473	3.557	56.030
February	11.725	50.866	3.404	54.270
March	12.783	54.956	3.675	58.631
April	13.490	58.240	3.404	61.644
May	13.809	60.008	3.372	63.381
June	13.559	58.808	3.853	62.661
FY TOTAL	157.857	\$ 686.359	\$ 46.423	\$ 732.782

⁽¹⁾ Includes impacts due to leakage, including unpaid transactions.

⁽²⁾ Other revenue does not include concession revenue.

Chapter 6

Forecast Comparisons

This chapter provides comparisons of the current forecasts for the Legacy system, Intercounty Connector, and I-95 ETL's against the previous forecasts from the September 2021 annual update in the report "Maryland Transportation Authority FY 2022 Traffic and Toll Revenue Forecast Update."

Table 6-1 provides the forecast comparison for the Legacy system, with actual revenue shown for FY 2021 and FY 2022 in the current forecast. Passenger car revenue is forecasted to be lower than the previous forecast in FY 2023 due to tapering of the collected backlogged transactions, compounded by higher gas prices and inflation causing reduced travel in recent months. After FY 2023, the current forecast is generally higher than the September 2021 forecast due to updated growth rates and construction impacts. In the current forecast construction schedules were updated, as detailed in **Section 4.2.2**, with certain start dates and project durations being affected. This is the reason for the variability of the 2.7 percent increase in FY 2025 as well as the 0.9 percent decrease in FY 2027, compared to the previous forecast.

Commercial vehicles have performed well during the pandemic and have shown growth even over pre-pandemic levels. In the current forecast, the overperformance from FY 2022 of 5.2 percent is expected to taper in the next few years as pandemic induced trends start to wane, and to account for economic uncertainty with high inflation, gas prices, and cost of goods. In the outer years of the forecast from FY 2025 through FY 2031, the current forecast is generally 0.6 percent lower than the previous forecast due to lower growth rates. The variations seen in FY 2026 through FY 2028 are due to the construction impacts previously noted for passenger cars.

Table 6-1
Legacy System Toll Revenue Comparison

Fiscal Year	Passenger Cars			Commercial Vehicles			Total Vehicles		
	Sept. 2021	% Diff - Current vs. Sept. 2021	Current ⁽¹⁾	Sept. 2021	% Diff - Current vs. Sept. 2021	Current ⁽¹⁾	Sept. 2021	% Diff - Current vs. Sept. 2021	Current ⁽¹⁾
2021	\$ 209.5	0.7%	\$ 211.0	\$ 178.0	0.1%	\$ 178.2	\$ 387.5	0.4%	\$ 389.2
2022	448.1	-7.7%	413.6	252.2	5.2%	265.4	700.3	-3.0%	679.0
2023	376.0	-1.1%	371.8	234.1	3.6%	242.5	610.0	0.7%	614.3
2024	367.4	0.6%	369.5	233.2	0.4%	234.1	600.6	0.5%	603.6
2025	362.5	2.7%	372.3	235.0	-0.6%	233.6	597.5	1.4%	605.9
2026	365.9	0.3%	367.1	236.6	-0.7%	234.9	602.4	-0.1%	602.1
2027	373.3	-0.9%	369.8	237.1	-0.4%	236.2	610.4	-0.7%	606.0
2028	380.4	-0.3%	379.2	237.9	0.0%	237.8	618.3	-0.2%	617.0
2029	384.8	0.8%	388.0	241.0	-0.6%	239.6	625.8	0.3%	627.6
2030	388.2	0.0%	388.4	242.1	-0.6%	240.8	630.4	-0.2%	629.2
2031	390.8	0.1%	391.1	243.3	-0.6%	241.9	634.0	-0.2%	633.0
2032	-	-	396.0	-	-	243.0	-	-	639.0

⁽¹⁾ Actual revenue shown for 2021 and 2022.

Table 6-2 provides the forecast comparison for the Intercounty Connector. The current forecast is lower than the September 2021 forecast by 10.7 percent in FY 2023, tapering down to 4.2 percent by FY 2026. This reduction is due to revised forecast assumptions that some portion of the impacts of the pandemic on commuting and travel patterns will persist throughout the forecast period. Trips on the ICC, I-95 ETLs, and other congestion-based facilities in the region have had higher lingering COVID-19 impacts than traditional toll roads or the bridges and tunnels that comprise the Legacy system. The increase in telecommuting is having an ongoing impact of work-related trips, and there is uncertainty on when and if those trips will return in the future as various sectors of the workforce adapt to working from home.

Table 6-2
Intercounty Connector Comparison

Fiscal Year	Sept. 2021	% Diff - Current vs. Sept. 2021	Current ⁽¹⁾
2021	\$ 20.0	6.6%	\$ 21.3
2022	83.9	1.2%	84.9
2023	71.2	-10.7%	63.5
2024	72.9	-10.1%	65.6
2025	74.4	-8.3%	68.2
2026	75.9	-4.2%	72.7
2027	77.4	-4.2%	74.2
2028	78.9	-4.2%	75.6
2029	80.5	-4.2%	77.1
2030	82.1	-4.2%	78.7
2031	83.3	-4.2%	79.9
2032	-	-	81.1

⁽¹⁾ Actual revenue shown for 2021 and 2022.

Table 6-3 provides the forecast comparison for the I-95 ETLs. In the current forecast, near-term projections were revised to account for lingering COVID-19 impacts, similar to the ICC. Baseline growth was updated based on the growth for JFK and FMT since these facilities are also on I-95, producing a positive 0.3% change in FY 2026 and FY 2027. In FY 2028, the I-695 direct connector ramps are assumed to open mid-fiscal year which was not an assumption in the September 2021 forecast.

Table 6-3
I-95 ETLs Comparison

Fiscal Year	Sept. 2021	% Diff - Current vs. Sept. 2021	Current ⁽¹⁾
2021	\$ 7.7	1.2%	\$ 7.8
2022	14.9	-5.6%	14.1
2023	16.7	-3.2%	16.1
2024	17.8	-3.2%	17.2
2025	19.6	-0.8%	19.4
2026	21.5	0.3%	21.5
2027	22.7	0.3%	22.8
2028	24.8	9.8%	27.2
2029	26.9	19.0%	32.1
2030	28.5	19.0%	33.9
2031	30.0	19.0%	35.7
2032	-	-	37.7

⁽¹⁾ Actual revenue shown for 2021 and 2022.

Table 6-4 provides the forecast comparison for other revenue. Actual FY 2022 other revenue came in higher than forecast, due to overperformance in civil penalty collections. FY 2023 other revenue is forecasted to be nearly 41 percent lower than the previous forecast due to the delay in civil penalty collections from the customer assistance plan which was not assumed in the previous study. For all remaining years of the forecast, the current forecast is slightly higher than the previous forecast due to higher passenger car transactions leading to higher civil penalty collections.

Table 6-5 provides the forecasted total revenue comparison for the entire MDTA system.

Table 6-4
Other Revenue Comparison⁽¹⁾

Fiscal Year	Sept. 2021	% Diff - Current vs. Sept. 2021	Current ⁽²⁾
2021	\$ 18.7	2.8%	\$ 19.2
2022	23.8	12.1%	26.7
2023	38.2	-40.6%	22.7
2024	44.4	4.8%	46.5
2025	49.1	3.2%	50.6
2026	49.4	1.3%	50.1
2027	50.8	-0.2%	50.7
2028	52.4	0.3%	52.6
2029	52.1	2.0%	53.2
2030	52.4	2.0%	53.4
2031	52.7	2.2%	53.8
2032	-	-	54.3

⁽¹⁾ Other revenue forecasts do not include concession revenue.

⁽²⁾ Actual revenue shown for 2021 and 2022.

Table 6-5
Total System Revenue Comparison

Fiscal Year	Total System		
	Sept. 2021	% Diff - Current vs. Sept. 2021	Current ⁽¹⁾
2021	\$ 433.9	0.8%	\$ 437.5
2022	822.9	-2.2%	804.7
2023	736.0	-2.6%	716.6
2024	735.7	-0.4%	732.9
2025	740.6	0.5%	744.2
2026	749.2	-0.4%	746.4
2027	761.3	-1.0%	753.6
2028	774.4	-0.3%	772.4
2029	785.3	0.6%	790.0
2030	793.3	0.2%	795.2
2031	800.1	0.3%	802.4
2032	-	-	812.1

⁽¹⁾ Actual revenue shown for 2021 and 2022.

Disclaimer

CDM Smith used currently-accepted professional practices and procedures in the development of the traffic and revenue estimates in this report. However, as with any forecast, it should be understood that differences between forecasted and actual results may occur, as caused by events and circumstances beyond the control of the forecasters. In formulating the estimates, CDM Smith reasonably relied upon the accuracy and completeness of information provided (both written and oral) by the MDTA. CDM Smith also relied upon the reasonable assurances of independent parties and is not aware of any material facts that would make such information misleading.

CDM Smith made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue estimates that must be considered as a whole; therefore, selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit of partial information extracted from this report.

All estimates and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple agencies, including MDTA. These estimates and projections may not be indicative of actual or future values, and are therefore subject to substantial uncertainty. Certain variables such as future developments, economic cycles, pandemics, government actions, climate change related events, or impacts related to advances in automotive technology etc. cannot be predicted with certainty and may affect the estimates or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any estimate or projection contained within this report.

While CDM Smith believes that the projections and other forward-looking statements contained within the report are based on reasonable assumptions as of the date of the report, such forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

The report and its contents are intended solely for use by the MDTA and designated parties approved by MDTA and CDM Smith. Any use by third-parties, other than as noted above, is expressly prohibited. In addition, any publication of the report without the express written consent of CDM Smith is prohibited.

CDM Smith is not, and has not been, a municipal advisor as defined in Federal law (the Dodd Frank Bill) to MDTA and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to MDTA with respect to the information and material contained in this report. CDM Smith is not recommending and has not recommended any action to MDTA. MDTA should discuss the information and material contained in this report with any and all internal and external advisors that it deems appropriate before acting on this information.

TAB 7



Board Members:

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
FROM: Director of Budget Jeffrey Brown
SUBJECT: Fiscal Year 2024 Preliminary Operating Budget
DATE: November 17, 2022

PURPOSE OF MEMORANDUM

The purpose of this memorandum is to advise you of the proposed Preliminary Fiscal Year (FY) 2024 Operating Budget.

SUMMARY

FY 2024 Preliminary Operating Budget Request

Summary of Major Changes (\$ millions)

FY 2024 Preliminary Operating Budget Request	\$391.4
FY 2023 Final Operating Budget	387.2
\$ Change FY 2024 vs FY 2023	4.2
% Change FY 2024 vs FY 2023	1.1%

The proposed FY 2024 operating budget of \$391.4 million represents a \$4.2 million, or a 1.1%, increase versus the FY 2023 Final Budget. When comparing the FY 2024 Preliminary Operating Budget to the MDTA Board-approved June 2022 financial forecast, the FY 2024 budget is \$4.5 million, or 1.2%, more than projected. The key driver for the increase in projected spending is the mandatory 4.5% cost of living adjustment (COLA) for all State employees effective November 1, 2022.

ANALYSIS

To better understand the budgetary changes and their associated drivers, the changes have been analyzed by mandated expenses, discretionary additions, and discretionary reductions.

FY 2023 Final Operating Budget
Page Two

FY 2023 Operating Budget	\$387.2
Mandated Increases	13.8
Additions	8.9
Reductions	(18.5)
FY 2024 Prelim Operating Budget	\$391.4

The mandated changes increased the budget by \$13.8 million due to:

- A 4.5% COLA for all State employees effective November 1 plus a 5% COLA for the police in FY 2024 account for a \$8.4 million increase. At the authority of the MDOT Secretary, MDTA follows suit with any actions taken by DBM for all other State employees.
- Employee, LEOPS, and MSP (0161, 0169, 0165) retirement costs account for a \$3.4 million increase.
- Step and Grade changes account for \$1.0 million.
- Social Security (0151) increased \$1.0 million primarily due to increased salaries.

The operating budget includes \$8.9 million in additional discretionary spending. The key variances are:

- Engineering (0807) accounts for a \$3.0 million increase. Increases are due to on-call consultant salary and inspection cost increases, the alignment of the budget with actual cost design activity, and increased environmental asset construction.
- Building Road Repairs & Maintenance (0812) accounts for a \$2.2 million increase. This budget is in line with normal operations as we gradually return to pre-pandemic levels.
- Turnover (0189) decreased (smaller credit, larger expense) by \$1.6 million. This is the net effect of higher salaries offset by a reduction in the turnover rate as we continue to fill vacancies.
- Management Studies & Consultants (0821) increases \$0.7 million for several reasons. Operations is acquiring A/E contracts for the Asset Management & Support Services Division, which will require additional consultant support. Also, additional studies are requested such as a workforce optimization model and a customer experience mapping.
- Salt/Snow Materials (0906) increased \$0.3 million. The budget is more in line with typical winter spending levels.
- Insurance (1309 -non STO payments) increases \$0.2 million because of increasing rates.

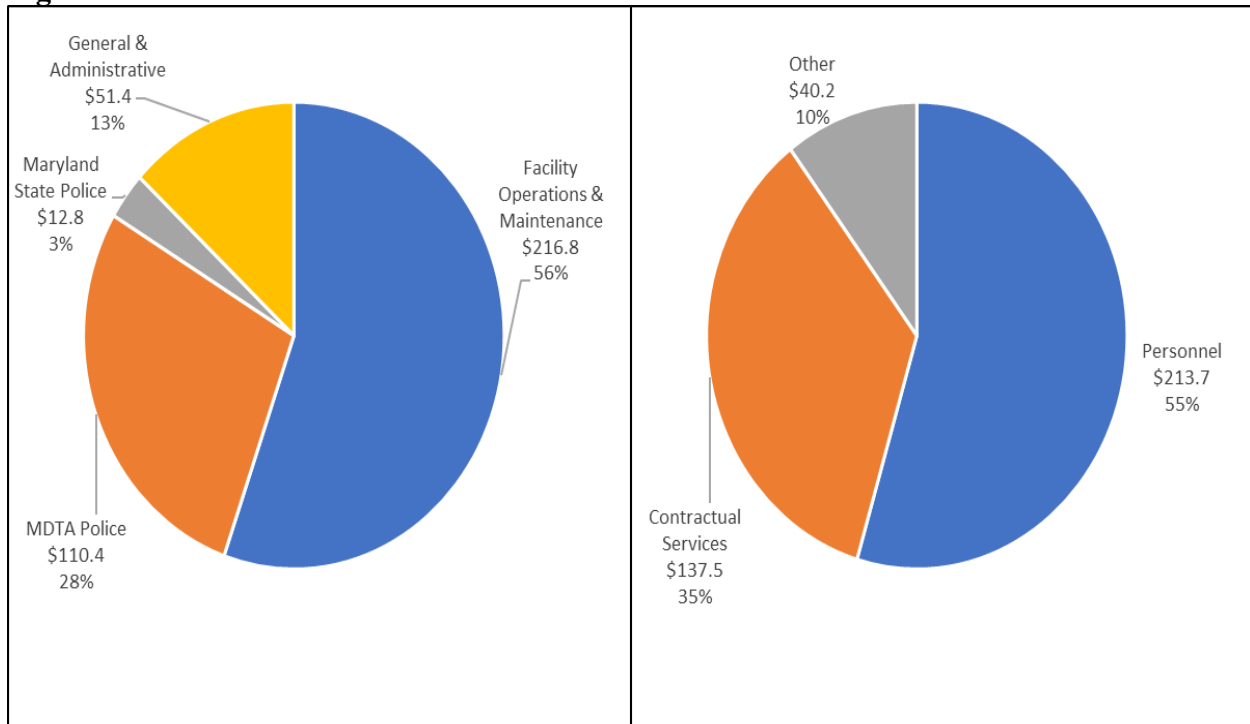
- The Maryland State Police (9910) increases \$0.2 million primarily due to the overhead rate applied to the COLA increases.
- Vehicle Maintenance (0731) accounts for a \$0.1 million increase from rising diesel costs.
- Replacement Maintenance & Building Equipment (1013) accounts for a \$0.1 million increase due to a tire balancer replacement, a fluids management system replacement, and two walk behind mowers.
- Various other increases (each one no more than \$0.1 million) for audits, association dues, gas, and contractual rate increases account for \$0.5 million

The key variances for the \$18.5 million reduction in operating budget spending are:

- A reduction of *E-ZPass*® Service Center Costs (0873) of \$11.2 million. The decrease occurs due to the removal of the backlog, reduced staffing requirements, and lower contractual rates.
- Purchased Vehicles (0701) decreases \$4.5 million as vehicle purchases return to normal levels following collective bargaining vehicle purchases for the police in FY 2023.
- Miscellaneous Payroll Adjustments (0110) is \$1.3 million lower due to the elimination of COVID-19 premium pay.
- Other Replacement Equipment (1099) is lower by \$0.6 million as the purchase of PPE equipment (10-year life) is complete.
- Additional Maintenance & Building Equipment (1113) is reduced by \$0.4 million. Key purchases for equipment such as a heavy truck-lift are to be completed in FY 2023.
- Additional Software Maintenance (0862) is lower by \$0.3 million due to cost savings from converting two contractual employees to regular permanent employees.
- Advertising (0801) is reduced by \$0.2 million. The two-year contract renewal for the prime marketing contract was extended for time only.

Figure 1 graphically displays the FY 2024 budget by division and purpose.

Figure 1



ATTACHMENTS

- Attachment 1 – FY 2024 Summary of Major Changes
- Attachment 2 - FY 2024 Summary By Object

Summary of Major Changes

	FY23 VS FY24
FY 2024 Prelim Operating Budget	\$391.4
FY 2023 Final Operating Budget	387.2
\$ Increase FY 2024 over FY 2023	\$4.2
% Increase FY 2024 over FY 2023	1.1%
FY 2023 Final Operating Budget	\$387.2
Mandated Increases	13.8
Additions	8.9
Reductions	(18.5)
FY 2024 Prelim Operation Budget Request	\$391.4
<u>Mandated</u>	
4.5% and 5.0% COLA	\$8.4
LEOPS/State Police Retirement	2.7
Social Security	1.0
Step/Reclass	1.0
Employee Retirement System	0.7
Total Mandated	\$13.8
<u>Additions</u>	
Engineers	\$3.0
Building Repair & Maintenance	2.2
Turnover	1.6
Management Studies	0.7
Salt/Snow Materials	0.3
Insurance - NonStd	0.2
Maryland State Police	0.2
Vehicle Maintenance	0.1
Replacement Maintenance & Building Equipment	0.1
Outside Services	0.1
Association Dues	0.1
Other	0.3
Total Additions	\$8.9
<u>Reductions</u>	

Summary of Major Changes

	FY23 VS FY24
E-ZPass® Service Center	(\$11.2)
Purchase Vehicles - Car/Light Truck	(4.5)
Misc. Payroll	(1.3)
Other Replacement Equipment	(0.6)
Add'l Maintenance & Building Equipment	(0.4)
Application Software Maintenance	(0.3)
Advertising	(0.2)
Total Reductions	<u>(\$18.5)</u>

Total Change	\$4.2
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ATTACHMENT 2

Object	Description	Final FY 2023 Budget	Prelim FY 2024 Budget	FY24 Prelim- FY23 \$ Inc/Dec	FY24 Prelim- FY23 % Inc/Dec
OBJECT 01 Salaries and Wages					
101	REGULAR EARNINGS	120,475,029	129,965,259	9,490,230	7.9%
102	ADDITIONAL ASSISTANCE	194,092	194,092	0	0.0%
104	OVERTIME EARNINGS	4,955,951	4,977,896	21,945	0.4%
104	OVERTIME EARNINGS - SNOW	1,339,686	1,338,168	(1,518)	-0.1%
105	SHIFT DIFFERENTIAL	993,334	978,410	(14,924)	-1.5%
110	MISCELLANEOUS P/R ADJUSTMENTS	1,421,356	94,068	(1,327,288)	-93.4%
111	ANNUAL LEAVE PAYOUTS	192,471	196,471	4,000	2.1%
112	RECLASSIFICATIONS	410,058	410,058	0	0.0%
151	SOCIAL SECURITY CONTRIBUTIONS	8,594,673	9,594,423	999,750	11.6%
152	HEALTH INSURANCE	19,173,822	19,129,208	(44,614)	-0.2%
154	RETIREE'S HLTH INSURANCE PREM	10,257,987	10,234,118	(23,869)	-0.2%
161	EMPLOYEES RETIREMENT SYSTEM	14,507,714	15,221,130	713,416	4.9%
165	STATE POLICE RETIREMENT SYSTEM	3,078,695	3,538,864	460,169	14.9%
169	LAW ENFORCEMNT OFF PENSION SYS	20,014,531	22,270,383	2,255,852	11.3%
171	BURDEN EXPENSE	0	0	0	
174	UNEMPLOYMENT COMPENSATION	337,343	352,393	15,051	4.5%
175	WORKERS COMPENSATION	3,923,031	3,923,031	0	0.0%
189	TURNOVER	(12,047,501)	(10,397,964)	1,649,537	-13.7%
199	OTHER FRINGE BENE - CLOTH ALLOW	853,363	856,750	3,387	0.4%
		198,675,634	212,876,757	14,201,123	7.1%
Object 02 Technical and Special Fees					
202	PER DIEM PAYMENTS	150,000	150,000	0	0.0%
211	EMPLOYEE AWARDS	1,000	1,000	0	
220	SPECIAL PAYMENTS PAYROLL	748,548	702,189	(46,359)	-6.2%
		899,548	853,189	(46,359)	-5.2%
Object 03 Communications					
301	POSTAGE	71,118	81,151	10,033	14.1%
302	TELEPHONE	228,558	251,569	23,011	10.1%
303	TELECOMMUNICATIONS	770,517	810,982	40,465	5.3%
305	STATE PAID TELECOMMUNICATIONS	1,725,000	1,725,000	0	0.0%
306	CELL PHONE EXPENDITURES	410,706	410,657	(49)	0.0%
		3,205,899	3,279,359	73,460	2.3%
Object 04 Travel					
401	IN STATE/ROUTINE OPERTN TRAVEL	31,363	37,820	6,457	20.6%
402	INSTATE/CONF/SEMNR/TRNG TRAVEL	57,229	87,579	30,350	53.0%
403	OUTSTATE/ROUTINE OPERTN TRAVEL	55,193	67,393	12,200	22.1%
404	OUTSTATE/CONF/SEMNR/TRNG TRAVL	269,937	297,737	27,800	10.3%
		413,722	490,529	76,807	18.6%
Object 06 Fuel and Utilities					
603	FUEL-OIL #2	139,100	130,200	(8,900)	-6.4%
606	FUEL-NATURAL GAS/PROPANE	197,146	271,113	73,967	37.5%
620	UTILITIES-ELECTRICITY	3,445,787	3,440,116	(5,671)	-0.2%
621	UTILITIES-WATER/SEWAGE	318,758	327,206	8,448	2.7%
		4,100,791	4,168,635	67,844	1.7%
Object 07 Motor Vehicle Operations and Maintenance					
701	PURCH VEH-CAR,LIGHT TRUCK	7,981,882	3,416,900	(4,564,982)	-57.2%
702	VEHICLE GAS & OIL	3,765,454	3,765,454	0	0.0%
703	VEHICLE MAINTENANCE & REPAIR	1,777,957	1,794,664	16,707	0.9%
704	INSURANCE	407,863	407,863	0	0.0%
721	VEHICLE GAS & OIL-WATERCRAFT	44,347	44,347	0	0.0%
722	VEHICLE MAINTENANCE & REPAIR-WATERCRAFT	61,431	61,431	0	0.0%
724	BOAT SLIP RENTAL/LAUNCHING FEES	4,200	4,200	0	0.0%
731	LG VEHICLE GAS & OIL	990,000	1,100,000	110,000	11.1%
732	LG VEHICLE MAINT & REPAIR	2,000,000	2,000,000	0	0.0%
789	COMMUTE CHARGES	(5,000)	(5,000)	0	0.0%
799	OTHER MOTOR VEHICLE CHARGES	50,000	50,000	0	0.0%
		17,078,134	12,639,859	(4,438,275)	-26.0%
Object 08 Contractual Services					
801	ADVERTISING/LEGAL PUBLICATION	3,250,353	3,050,353	(200,000)	-6.2%
802	APPLICATIONS SOFTWARE MAINTENANCE	100,000	100,000	0	0.0%

ATTACHMENT 2

Object	Description	Final	Prelim	FY24 Prelim-	FY24 Prelim-
		FY 2023	FY 2024	FY23	FY23
		Budget	Budget	\$	%
				Inc/Dec	Inc/Dec
804	PRINTING/REPRODUCTION SERVICE	22,000	32,000	10,000	45.5%
807	ENGINEERS	28,905,000	31,900,000	2,995,000	10.4%
808	EQUIPMENT RENTAL	502,101	493,631	(8,470)	-1.7%
809	EQUIPMENT REPAIRS & MAINT	1,610,607	1,655,264	44,657	2.8%
810	EXTERMINATION SERVICE	16,771	16,771	0	0.0%
812	BUILDING/ROAD REPAIRS & MAINT	14,608,242	16,829,158	2,220,916	15.2%
813	JANITORIAL SERVICES	1,431,411	1,458,540	27,129	1.9%
814	GROUNDS MAINTENANCE	46,490	45,482	(1,008)	-2.2%
815	LAUNDRY SERVICE	3,199	3,199	0	0.0%
817	LEGAL SERVICES	204,381	203,300	(1,081)	-0.5%
819	EDUCATION/TRAINING CONTRACTS	1,355,688	1,363,988	8,300	0.6%
820	MEDICAL CARE	271,720	271,720	0	0.0%
821	MGMT STUDIES AND CONSULTANTS	3,448,658	4,098,658	650,000	18.8%
823	SECURITY SERVICES	981,190	890,773	(90,417)	-9.2%
824	LABORATORY SERVICES	47,736	45,736	(2,000)	-4.2%
825	VETERINARY SERVICES	31,565	31,565	0	0.0%
826	FREIGHT AND DELIVERY	18,720	14,987	(3,733)	-19.9%
827	TRASH AND GARBAGE REMOVAL	446,051	449,894	3,843	0.9%
828	OFFICE ASSISTANCE	61,244	61,244	0	0.0%
829	FISCAL SERVICES	309,000	410,250	101,250	32.8%
829	E-ZPASS RETAIL FEES	18,550,000	18,550,000	0	0.0%
841	DP CENTRAL PROCESS SVC	1,100,000	1,150,000	50,000	4.5%
843	DP COMMUNICATIONS CONTROLLERS SVC	480,000	480,000	0	0.0%
849	TELECOMM LINES, MODEMS & CONTRLLR	98,453	95,704	(2,749)	-2.8%
854	COMPUTER MAINTENANCE CONTRACTS	183,160	185,000	1,840	1.0%
858	SOFTWARE LICENSES	146,302	146,402	100	0.1%
862	APPL SOFTWARE MAINTENANCE	2,218,082	1,901,200	(316,882)	-14.3%
864	SYSTEMS SOFTWARE MAINTENANCE	500,000	500,000	0	0.0%
865	OUTSIDE SVCS-SYS ANALYSIS&DSGN	7,317,000	7,465,000	148,000	2.0%
866	OUTSIDE SVCS-PROGRAMMING	415,000	415,000	0	0.0%
869	OUTSIDE SVCS-COMPUTER USAGE	762,000	775,000	13,000	1.7%
873	OUTSIDE SVC - E-Z PASS SVC CENTER	50,154,944	39,000,000	(11,154,944)	-22.2%
874	OFFICE OF ATTORNEY GENERAL FEE	44,265	44,265	0	0.0%
875	RETIREMENT AGENCY ADMIN FEE	204,565	204,542	(23)	0.0%
876	STATEWIDE DOIT SERVICES	80,604	85,000	4,396	5.5%
894	STATEWIDE PERSONNEL SYS ALLOC	55,433	55,590	157	0.3%
897	STATEWIDE ENTERPRISE BUDGET SYSTEM	27,574	27,574	0	0.0%
899	OTHER CONTRACTUAL SVC-NON DP	2,668,679	2,986,244	317,565	11.9%
		142,678,188	137,493,034	(5,185,154)	-3.6%
Object 09 Supplies and Materials					
901	AGRICULTURE	30,740	34,379	3,639	11.8%
902	OFFICE SUPPLIES	396,672	399,783	3,111	0.8%
903	ELECTRICAL MATERIALS	428,043	390,509	(37,534)	-8.8%
904	BUILDING & HOUSEHOLD SUPPLIES	403,664	388,011	(15,653)	-3.9%
905	ROADWAY MAINT MATERIALS	670,774	619,613	(51,161)	-7.6%
906	SALT/SNOW MELTING MATERIALS	1,566,823	1,884,363	317,540	20.3%
908	HOUSEKEEPING SUPPLIES	76,069	74,537	(1,532)	-2.0%
909	MEDICAL SUPPLIES	40,314	40,314	0	0.0%
912	WEARING APPAREL-UNIFORMS EMPL	1,110,734	1,136,880	26,146	2.4%
915	LIBRARY SUPPLIES	23,675	23,675	0	0.0%
917	SMALL TOOLS	384,798	372,809	(11,989)	-3.1%
918	VETERINARY SUPPLIES	29,381	28,500	(881)	-3.0%
920	FOOD	185,414	176,776	(8,638)	-4.7%
926	DATA PROCESSING SUPPLIES	41,774	42,522	748	1.8%
934	AMMO GUNS FIRING RNGE SUPPLIES	576,321	575,549	(772)	-0.1%
951	E-ZPASS TRANSPONDERS	4,365,000	4,365,000	0	0.0%
999	OTHER SUPPLIES AND MATERIALS	307,428	254,413	(53,015)	-17.2%
		10,637,624	10,807,633	170,009	1.6%
Object 10 Replacement Equipment					
1013	REPL MAINTENANCE & BUILDING EQUIP	496,500	605,500	109,000	22.0%
1015	REPL OFFICE EQUIPMENT	74,907	45,050	(29,857)	-39.9%

ATTACHMENT 2

Object	Description	Final	Prelim	FY24 Prelim-	FY24 Prelim-
		FY 2023	FY 2024	FY23	FY23
		Budget	Budget	\$	%
				Inc/Dec	Inc/Dec
1019	REPL RADIOS & ELECTRONIC EQUIPMENT	206,000	226,000	20,000	9.7%
1031	REPL DP EQUIP-MAINFRAME	75,000	80,000	5,000	6.7%
1033	REPL DP EQUIP-MICROCOMPUTER	1,250,000	1,250,000	0	0.0%
1099	OTHER REPLACEMENT EQUIPMENT	978,900	334,900	(644,000)	-65.8%
		3,081,307	2,541,450	(539,857)	-17.5%
Object 11 Additional Equipment					
1102	ADDT'L AUDIO-VISUAL EQUIP	12,500	14,500	2,000	16.0%
1103	ADDT'L CLEANING EQUIPMENT	10,000	10,000	0	
1109	ADDT'L HUMAN ENVIRONMENTAL EQUIPMENT	1,000	1,000	0	0.0%
1113	ADDT'L MAINTENANCE & BUILDING EQUIP	501,000	92,000	(409,000)	-81.6%
1115	ADDT'L OFFICE EQUIPMENT	35,000	27,500	(7,500)	-21.4%
1133	ADDT'L DP EQUIP-MICROCOMPUTER	100,000	100,000	0	
1199	OTHER ADDITIONAL EQUIPMENT	472,085	459,835	(12,250)	-2.6%
		1,131,585	704,835	(426,750)	-37.7%
Object 13 Fixed Charges					
1302	INSURANCE COVERAGE PAID TO STO	468,408	488,333	19,925	4.3%
1303	RENT PAID TO DGS	1,100	1,100	0	
1304	SUBSCRIPTIONS	53,160	26,938	(26,222)	-49.3%
1305	ASSOCIATION DUES	254,605	380,945	126,340	49.6%
1308	LICENSES	9,770	7,270	(2,500)	-25.6%
1309	INSURANCE (NON STO PAYMENTS)	4,463,488	4,667,231	203,743	4.6%
		5,250,531	5,571,817	321,286	6.1%
Total					
		387,152,964	391,427,098	4,274,134	1.1%

TAB 8



Maryland Transportation Authority

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
James F. Ports, Jr., Chairman

Board Members:

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
FROM: Capital Program Manager Jeanne Marriott
SUBJECT: Final Fiscal Year (FY) 2023-2028 Consolidated Transportation Program (CTP)
DATE: November 17, 2022

PURPOSE OF MEMORANDUM

The purpose of this presentation is to seek your approval of the proposed Final Fiscal Year (FY) 2023-2028 Consolidated Transportation Program (CTP). The Final CTP was recommended for approval by the Capital Committee on November 3, 2022, and by the Finance Committee on November 10, 2022.

SUMMARY

The six-year FY 2023-2028 budget in the proposed CTP is \$2.7 billion. The proposed CTP reflects a net increase in the six-year FY 2023-2028 budget of \$52.6 million (Attachment #1 – Line 6). The net FY 2023-2028 increase is the result of the following:

- Increase in the six-year CTP budget by \$15.8 million for the Nice/Middleton Bridge (Attachment #1 – Line 1).
- Increase in the six-year CTP budget by \$9.2 million for the I-95 ETL Northern Extension (Attachment #1 – Line 2).
- Increase in the six-year CTP budget by \$107.9 million for all projects except Nice/Middleton Bridge, I-95 ETL Northern Extension, and reserves (Attachment #1 – Line 3).
- Decrease in the Allocated and Unallocated Reserves by \$80.3 million (Attachment #1 – Line 4).

FY 2022 expenditures were \$496.2 million vs. \$548.6 million in the Draft FY 2023-2028 CTP (Attachment #1 – Line 6). FY 2022 underspending was \$52.4 million and has been rolled over into the Final FY 2023-2028 CTP.

Highlights of project and reserve changes incorporated in the proposed Final FY 2023-2028 CTP are shown in Attachment #2.

Added New Projects

Added three system preservation projects and one enhancement project for an increase of \$6.3 million in the FY 2023-2028 period.

Modified Budgets to Reflect Bids Received

Adjusted one project to reflect bids received that were lower than Engineer's Estimate and one project to reflect bids received that were higher than Engineer's Estimate for a net increase of \$15.9 million.

Added Construction Phase

The construction phase of two projects was funded for a total of \$45.7 million transferred from the reserves as design reached 60% level and cost estimates were developed on fully developed scopes.

Modified Budgets to Reflect Completed Projects

One project was completed and one project was deleted for a total decrease of \$15.0 million in the FY 2023-2028 period.

Modified Active Projects Due to Cost Changes and Cash Flow Adjustments

Adjusted cash flows and funded changes in engineering and/or construction budgets for 112 projects for a net budget increase of \$80.1 million.

Reserve Changes

The allocated reserves decreased by \$80.3 million, and the unallocated reserves remained the same at \$25.0 million.

ATTACHMENTS

- Attachment #1 – CTP Comparison Tables – Draft v Final FY 2023-2028 CTP
- Attachment #2 – Changes from Draft to Final FY 2023-2028 CTP
- Attachment #3 – Where are the Projects?
- Attachment #4 – What are the Categories of Projects?

	CTP Comparison Tables - Final v Draft FY 2023-2028 CTP															
Line									Total 2022-2027	Total 2023-2028					Total 2023-2032	
	2022	2023	2024	2025	2026	2027	2028	2029			2030	2031	2032			
1	Nice/Middleton Bridge	Draft 23-28	\$210,706	\$116,240	\$30,363	\$15,026	\$0	\$0	\$0	\$372,335	\$161,629	\$0	\$0	\$0	\$0	\$161,629
		Final 23-28	\$194,858	\$92,088	\$40,363	\$45,026	\$0	\$0	\$0	\$372,335	\$177,477	\$0	\$0	\$0	\$0	\$177,477
		Change	(\$15,848)	(\$24,152)	\$10,000	\$30,000	\$0	\$0	\$0	(\$0)	\$15,848	\$0	\$0	\$0	\$0	\$15,848
2	I-95 ETL Northern Extension (Including Reserves)	Draft 23-28	\$105,987	\$214,800	\$191,176	\$136,722	\$109,202	\$81,433	\$53,818	\$839,320	\$787,151	\$21,454	\$0	\$0	\$0	\$808,605
		Final 23-28	\$90,796	\$204,853	\$219,164	\$128,822	\$108,258	\$81,433	\$53,818	\$833,326	\$796,347	\$27,448	\$0	\$0	\$0	\$823,796
		Change	(\$15,191)	(\$9,947)	\$27,988	(\$7,900)	(\$944)	(\$0)	\$0	(\$5,994)	\$9,196	\$5,994	\$0	\$0	\$0	\$15,191
3	Remainder of CTP (Excluding Reserves)	Draft 23-28	\$231,899	\$215,628	\$283,356	\$191,812	\$61,426	\$18,888	\$2,003	\$1,003,009	\$773,113	\$0	\$0	\$0	\$0	\$773,113
		Final 23-28	\$210,516	\$237,490	\$339,493	\$184,410	\$78,570	\$37,925	\$3,113	\$1,088,403	\$881,000	\$0	\$0	\$0	\$0	\$881,000
		Change	(\$21,383)	\$21,862	\$56,137	(\$7,402)	\$17,144	\$19,037	\$1,110	\$85,394	\$107,887	\$0	\$0	\$0	\$0	\$107,887
4	Allocated and Unallocated Reserves	Draft 23-28	\$0	\$9,334	\$39,172	\$170,895	\$230,821	\$223,298	\$237,660	\$673,520	\$911,180	\$318,450	\$323,275	\$328,100	\$332,925	\$2,213,930
		Final 23-28	\$0	\$0	\$28,905	\$134,078	\$214,148	\$215,550	\$238,213	\$592,681	\$830,894	\$318,450	\$323,275	\$328,100	\$332,925	\$2,133,644
		Change	\$0	(\$9,334)	(\$10,267)	(\$36,817)	(\$16,673)	(\$7,748)	\$553	(\$80,839)	(\$80,286)	\$0	\$0	\$0	\$0	(\$80,286)
5	Remainder of CTP (3+4) (Including Reserves)	Draft 23-28	\$231,899	\$224,962	\$322,528	\$362,707	\$292,247	\$242,186	\$239,663	\$1,676,529	\$1,684,293	\$318,450	\$323,275	\$328,100	\$332,925	\$2,987,043
		Final 23-28	\$210,516	\$237,490	\$368,398	\$318,488	\$292,718	\$253,475	\$241,326	\$1,681,084	\$1,711,894	\$318,450	\$323,275	\$328,100	\$332,925	\$3,014,644
		Change	(\$21,383)	\$12,528	\$45,870	(\$44,219)	\$471	\$11,289	\$1,663	\$4,555	\$27,601	\$0	\$0	\$0	\$0	\$27,601
6	Total (1+2+5)	Draft 23-28	\$548,592	\$556,002	\$544,067	\$514,455	\$401,449	\$323,619	\$293,481	\$2,888,184	\$2,633,073	\$339,904	\$323,275	\$328,100	\$332,925	\$3,957,277
		Final 23-28	\$496,170	\$534,431	\$627,925	\$492,336	\$400,976	\$334,908	\$295,144	\$2,886,745	\$2,685,719	\$345,898	\$323,275	\$328,100	\$332,925	\$4,015,917
		\$ Change	(\$52,422)	(\$21,571)	\$83,858	(\$22,119)	(\$473)	\$11,289	\$1,663	(\$1,439)	\$52,646	\$5,994	\$0	\$0	\$0	\$58,640
		% Change	-10%	-4%	15%	-4%	0%	3%	1%	0%	2%	2%	0%	0%	0%	0%
Cumulative Change			(\$52,422)	(\$73,993)	\$9,865	(\$12,255)	(\$12,728)	(\$1,439)	\$223	(\$1,439)	\$52,646	\$6,218	\$6,218	\$6,218	\$6,218	\$6,218

Changes from Draft to Final FY 2023-2028 CTP

New Projects Added (\$000)				
Facility	Project Name	TEC Change	FY 2023-2028 Budget Change	
KH	2582 - MD 695 Ramps to I-95 Northbound Express Toll Lanes (Engineering only)	5,425	5,425	
HT	2587 - Baltimore Harbor Tunnel (BHT) Lane Use Signals (LUS) Extension (Engineering only)	400	400	
MA	2584 - Replace Dynamic Messaging Signs (DMS) and Toll Rate Signs (TRS) at Various Facilities (Engineering only)	300	300	
MA	2585 - Replace Closed Circuit Televisions (CCTVs) at Various Facilities (Engineering only)	150	150	
Total - New Projects Added (4)		6,275	6,275	

Projects Modified to Reflect Bids Received (\$000)				
Facility	Project Name	TEC Change	FY 2023-2028 Budget Change	
HT	2306 - Envelope Repair and Switchgear Replacements at BHT Vent Buildings	16,198	16,083	
HT	2506 - Baltimore Harbor Tunnel In-Tunnel Fiber Improvements	(320)	(218)	
Total - Projects Modified to Reflect Bids Received (2)		15,878	15,865	

Projects Modified to Add Construction Phase (\$000)				
Facility	Project Name	TEC Change	FY 2023-2028 Budget Change	
KH	0202 - I-95 Southbound Hard Shoulder Running	32,300	33,093	
HT	0240 - Resurfacing North and South of Baltimore Harbor Tunnel	12,533	12,566	
Total - Projects Modified to Add Construction Phase (2)		44,833	45,660	

Projects Completed (\$000)				
Facility	Project Name	TEC Change	FY 2023-2028 Budget Change	Notes
MA	2418 - On-Call Electrical and Intelligent Transportation Systems (ITS) - #3	20	27	Completed.
MA	2574 - On-Call Structural Repairs	(15,000)	(15,000)	Deleted, funds transferred to Project 2573 - On-Call Structural Repairs.
Total - Projects Completed (2)		(14,980)	(14,973)	

Active Projects Modified Due to Cost Changes and Cash Flow Adjustments (\$000)				
Facility	Project Name	TEC Change	FY 2023-2028 Budget Change	Notes
MA	2573 - On-Call Structural Repairs	14,250	14,250	Increased CO to merge two on-call structural repair projects (funds transferred from Project 2574).
KB	0219 - Francis Scott Key (FSK) Bridge Deck Replacement (Engineering only)	5,600	6,021	Increased PE to advance from initial study into main design.
HT	2487 - All Electronic Tolling (AET) Conversion with Frankfur Avenue Interchange Modifications	5,854	5,647	Increased PE for additional design activities.
KH	2570 - JFK Highway Wash Bay, Salt Barn, and Fueling Facilities at Perryville (Engineering only)	1,300	1,395	Increased PE to advance to full design.
FT	0200 - Rehabilitate Fort McHenry Tunnel (FMT) Area-Wide Lighting	1,172	1,130	Increased PE and CO for scope changes due to work added.
BB	2470 - Project Management Office and Maintenance Equipment Storage Building	1,160	1,596	Increased CO for revised cost based on final Procurement Review Group (PRG) estimate.
BB	2317 - Rehab Decks of Eastbound (EB) Span - Phase I Deck Widening & Replacement of Deck Truss Spans	901	1,250	Increased CO for Construction Management at Risk (CMAR) Construction Package 1.
Active Projects Modified Due to Cost Changes and Cash Flow Adjustments - continued on Page 2				

Changes from Draft to Final FY 2023-2028 CTP

Active Projects Modified Due to Cost Changes and Cash Flow Adjustments (\$000) - continued				
Facility	Project Name	TEC Change	FY 2023-2028 Budget Change	Notes
FT	2508 - Bridge Deck Rehabilitation and Miscellaneous Repairs to FMT South	900	18	Increased CO for additional Construction Management Inspection (CMI), Phase V services, and Maintenance and Police support.
HT	2437 - Mill and Overlay Bridge Decks (HOY013 and HOY014)	900	1,029	Increased CO for additional CMI, Phase V services, and Maintenance and Police support.
FT	2449 - Superstructure Repairs of Various Bridges North and South of Fort McHenry Tunnel	800	53	Increased CO for additional work, Phase 5 services, and CMI.
KH	2544 - Tydings Bridge Interim High Speed AET Conversion	621	63	Increased PE and CO for additional design project completion.
MA	2480 - On-Call Structural Repairs & Miscellaneous Modifications	601	421	Increased PE and CO for supplemental agreement.
KB	2521 - MDTA Police Training Academy	595	(17)	Increased PE for full Phase 2 design.
FT	2499 - MDTA Police Vehicle Storage Garage (Engineering only)	542	678	Increased PE for full design.
KH	2484 - JFK Substation and Electrical Equipment Replacement	517	121	Increased CO for Extra Work Authorization (EWA) and Phase V services.
BB	2369 - Deck Rehabilitation and Miscellaneous Modifications to BB WB Span	505	679	Increased CO for additional CMI.
KB	2304 - Convert Key Bridge to All Electronic Tolling (AET)	500	153	Increased CO for redlines.
BB	2459 - Rehabilitate Maintenance Access Facilities of EB and WB Spans of the Bay Bridge	480	1,056	Increased CO for additional CMI.
BB	2412 - Bay Bridge Priority Structural Repairs and Misc. Modifications	459	300	Increased CO for additional CMI costs.
KB	2450 - I-695 Subgrade Improvements at Bear Creek	452	382	Increased PE for design/scope change
KB	2438 - Police Headquarters Building Envelope Renovations	436	608	Increased CO based on latest cost estimate reflecting current market condition.
MA	2479 - On-Call Structural Repairs & Miscellaneous Modifications	408	903	Increased CO funds due to supplemental agreement
BB	2476 - Bay Bridge Crossover Automated Lane Closure System	400	1,748	Increased CO for additional CMI.
HT	2527 - Replace Bridges on I-895 over I-695 (Engineering only)	360	742	Increased PE to cover the revised design as well as the review of SHA.
HB	2512 - Cleaning and Painting of the Hatem Bridge (Engineering only)	360	(58)	Increased PE for scope change to include additional structural repairs.
HB	2273 - Convert Hatem Bridge to All Electronic Tolling (AET) and Rehabilitate Approach Roadways	300	140	Increased CO for redlines.
HT	2560 - BHT Maintenance/Auto Building HVAC and Roof Replacement (Engineering only)	250	284	Increased PE to advance from study to full design.
MA	2489 - Drainage Rehabilitation - Phase III - Outfalls	222	265	Increased PE for Extra Work Order (EWO) #6.
HT	2447 - Replace Baltimore Harbor Tunnel 15KV Feeders	176	44	Increased CO for time extension.
MA	2497 - Radio Rebroadcast and Radiax in BHT & FMT (Engineering only)	152	201	Increased PE to revise Request for Proposal (RFP) to new template.
HT	2454 - I-895 BHT TMDL Stream Restoration Upstream of BY052X01	150	41	Increased CO for resubmittal of Maryland Department of the Environment (MDE) as-builts.
BB	2469 - Miscellaneous Rehabilitation of the Bay Bridge Suspension Spans	116	0	Increased CO for revised estimate.
MA	2404 - Bay Total Maximum Daily Load (TMDL) Stormwater Retrofits - Phase IV	100	69	Increased CO for close out Phase V services.
MA	2083 - Evaluate Condition of Deck, Superstructure & Substructures - All Facilities (Engineering only)	94	0	Increased PE for additional work.
HT	2439 - Administration Building Roof Replacement and Envelope Rehabilitation	50	24	Increased CO for Phase V Services.
KH	2393 - Resurface Northbound I-95 from the Tydings Bridge to the Maryland/Delaware State Line	32	0	Increased CO for Phase V services.
MA	2524 - On-Call Building Systems Rehabilitation/Replacement	(1,848)	(1,312)	Decreased CO to revise capital/operating split to 70% capital/30% operating.
MA	2235 - Program Management Services for System Preservation (Engineering Only)	(3,000)	2,000	Decreased PE for expenses distributed to other projects.
NB	1024 - Replace Nice/Middleton Bridge	0	15,848	Cash flow adjustment.
KH	Various - I-95 Express Toll Lanes Northbound Extension	0	9,196	Cash flow adjustment.
BB	2516 - William Preston Lane Jr. Memorial Bridge AET Conversion	0	2,087	Cash flow adjustment.
MA	2498 - On-Call Electrical/Intelligent Transportation Systems (ITS)	0	2,083	Cash flow adjustment.

Active Projects Modified Due to Cost Changes and Cash Flow Adjustments - continued on Page 3

Changes from Draft to Final FY 2023-2028 CTP

Active Projects Modified Due to Cost Changes and Cash Flow Adjustments (\$000) - continued				
Facility	Project Name	TEC Change	FY 2023-2028 Budget Change	Notes
MA	2538 - On-Call Structural Repairs & Miscellaneous Modifications	0	1,974	Cash flow adjustment.
FT	2458 - Rehabilitate Tunnel 13 KV Cable, Conduit, and Concrete Wall	0	1,339	Cash flow adjustment.
FT	2517 - Convert to Cashless Tolling at the Fort McHenry Tunnel	0	1,144	Cash flow adjustment.
MA	2496 - On-Call Drainage and Stormwater BMP Remediation III	0	1,060	Cash flow adjustment.
MA	2553 - DYNAC Maintenance Contract (BHT, FMT, and ICC)	0	1,036	Cash flow adjustment.
MA	2147 - Replace Electronic Toll Collection and Operating System - 3rd Generation	0	1,008	Cash flow adjustment.
BB	2501 - On-Call Structural Repairs & Miscellaneous Modifications for Bay Bridge	0	841	Cash flow adjustment.
FT	2543 - Replace Superstructure of Moravia Road Ramp Bridge to I-95 Southbound	0	789	Cash flow adjustment.
MA	2523 - On-Call Facility/Building Repairs	0	734	Cash flow adjustment.
KH	1116 - Kennedy Highway I-95 Improvements with Express Toll Lanes	0	568	Cash flow adjustment.
MA	2549 - On-Call Miscellaneous Paving Repair	0	513	Cash flow adjustment.
BB	2504 - Bay Bridge Queue Detection System	0	443	Cash flow adjustment.
KH	2436 - Replace I-95 Kennedy Highway Bridge over CSXT (Engineering only)	0	421	Cash flow adjustment.
FT	2513 - Structural Rehabilitation of Various Bridges on I-95	0	414	Cash flow adjustment.
MA	0231 - On-Call Signs, Sign Lights, and Sign Structures	0	361	Cash flow adjustment.
MA	2456 - Replace Police In Car Digital Video System	0	360	Cash flow adjustment.
HT	2529 - Rehabilitate BHT Tunnel Lighting System (Engineering only)	0	340	Cash flow adjustment.
FT	0237 - Rehabilitate Substructure of I-95 Bridges over Race Street (Engineering only)	0	326	Cash flow adjustment.
MA	2421 - Mainline Small Drainage System Preservation	0	160	Cash flow adjustment.
KH	2428 - Deck Replacement on I-95 Kennedy Highway Bridge over Little Northeast Creek	0	143	Cash flow adjustment.
KH	2500 - Raphael Road Maintenance Facility - Phase 1 (Engineering only)	0	112	Cash flow adjustment.
KH	2394 - Resurface Southbound I-95 from the Maryland/Delaware State Line to the Tydings Bridge	0	110	Cash flow adjustment.
MA	0228 - On-Call Electrical/ITS	0	100	Cash flow adjustment.
MA	2545 - Civil Rights Compliance Information Management System (PRISM)	0	100	Cash flow adjustment.
MA	2559 - On-Call Civil Repairs (Engineering only)	0	100	Cash flow adjustment.
KH	2569 - JFK MSP Building Remodeling (Engineering only)	0	100	Cash flow adjustment.
FT	0218 - FMT South Traffic Relief Improvements (Planning only)	0	96	Cash flow adjustment.
MA	2466 - Clean and Paint Bridges on BHT Thruway and JFK Memorial Highway	0	88	Cash flow adjustment.
MA	2444 - Bay TMDL Stormwater Retrofits - Phase VI	0	78	Cash flow adjustment.
MA	2360 - Furnish and Install License Plate Recognition Systems (LPR)	0	66	Cash flow adjustment.
HT	2263 - Replace Baltimore Harbor Tunnel (BHT) Vent Fans	0	61	Cash flow adjustment.
MA	2507 - On-Call Signs, Sign Lights, and Sign Structures	0	58	Cash flow adjustment.
MA	2502 - MDTA Enterprise Budget Planning and Management System (Software)	0	50	Cash flow adjustment.
MA	2551 - Environmental On-Call Phase IV	0	50	Cash flow adjustment.
ICC	2563 - Replace ICC Deck Over Lighting (Engineering only)	0	50	Cash flow adjustment.
FT	2571 - FMT Campus Fuel Oil Conversion (Engineering only)	0	50	Cash flow adjustment.
HT	2578 - BHT NB Overheight Vehicle Detection System (OHVDS) Improvements (Engineering Only)	0	48	Cash flow adjustment.
FT	2565 - FMT East Vent Building Facade and Roof Replacement (Engineering only)	0	47	Cash flow adjustment.

Active Projects Modified Due to Cost Changes and Cash Flow Adjustments - continued on Page 4

Changes from Draft to Final FY 2023-2028 CTP

Active Projects Modified Due to Cost Changes and Cash Flow Adjustments (\$000) - continued				
Facility	Project Name	TEC Change	FY 2023-2028 Budget Change	Notes
MA	2583 - Generator Replacement at Various Facilities (Engineering Only)	0	41	Cash flow adjustment.
BB	2260 - Clean and Paint Structural Steel Westbound Span - Phase IV	0	41	Cash flow adjustment.
HT	2292 - Replace Deck and Superstructure of Bridge over Patapsco Flats	0	35	Cash flow adjustment.
BB	2342 - Rehabilitate Suspension Spans on Westbound Span	0	32	Cash flow adjustment.
FT	2580 - FMT Box Girder Preservation (Engineering only)	0	25	Cash flow adjustment.
MA	2411 - On-Call Facility/Building Repairs	0	25	Cash flow adjustment.
FT	0239 - Holding Tank Replacement at the S. FMT Vent Building (Engineering only)	0	25	Cash flow adjustment.
MA	2289 - Remove, Replace and Upgrade Sign Structures	0	21	Cash flow adjustment.
PB	2400 - On-Call Facility and Building Repairs	0	20	Cash flow adjustment.
FT	0217 - FMT Facility-wide Zone Paint Program	0	19	Cash flow adjustment.
FT	2414 - I-95 Moravia Road to Tunnel - Phases 1 & 2 NB/Phase 2 SB	0	15	Cash flow adjustment.
BB	2481 - Police and Automotive Maintenance Building Generator Replacement	0	12	Cash flow adjustment.
BB	2228 - BB Cable Rewrapping & Dehumidification of Cables and Anchorages	0	11	Cash flow adjustment.
FT	2269 - Replace FMT Tunnel Lighting Systems	0	9	Cash flow adjustment.
KB	2319 - Building Renovations at FSK Campus	0	8	Cash flow adjustment.
ICC	2482 - ICC Fiber Optic Utility Tracer Wire	0	6	Cash flow adjustment.
FT	2442 - Port Covington Access I-95	0	5	Cash flow adjustment.
MA	2433 - Update Phone System to NECSV9500	0	4	Cash flow adjustment.
KH	2440 - Kennedy Highway Maintenance Facility 2 Building Renovations	0	2	Cash flow adjustment.
HT	2423 - Replacement of Concrete Median Barrier along I-895	0	(5)	Cash flow adjustment.
MA	2471 - 10-Year Equipment Budget - FY 2018 through FY 2027	0	(10)	Cash flow adjustment.
MA	2483 - Small Drainage Rehabilitation	0	(31)	Cash flow adjustment.
HT	2380 - Repair Slopes and Drainage	0	(35)	Cash flow adjustment.
BB	2329 - Replace 5KV Feeder and Add Redundant Cable to EB & WB Spans	0	(43)	Cash flow adjustment.
ICC	1982 - Intercounty Connector (ICC)/MD 200	0	(103)	Cash flow adjustment.
MA	2546 - Purchase Card Information System (PCARD)	0	(197)	Cash flow adjustment.
KB	0199 - Maintenance and Repairs of the I-695 Curtis Creek Drawbridges at FSK	0	(276)	Cash flow adjustment.
HT	0280 - Baltimore Harbor Tunnel I-895 Bridge Replacement	0	(540)	Cash flow adjustment.
FT	2251 - Rehabilitate FMT Vent Fans	0	(794)	Cash flow adjustment.
KH	2509 - Structural Rehabilitation of the Millard E. Tydings Memorial Bridge	0	(1,301)	Cash flow adjustment.
MA	2537 - On-Call Structural Repairs & Miscellaneous Modifications	0	(1,352)	Cash flow adjustment.
KH	2477 - I-95/Belvidere Road Interchange	0	(2,040)	Cash flow adjustment.
Total - Active Projects Modified Due to Cost Changes and Cash Flow Adjustments (112)		0	80,105	

Changes from Draft to Final FY 2023-2028 CTP

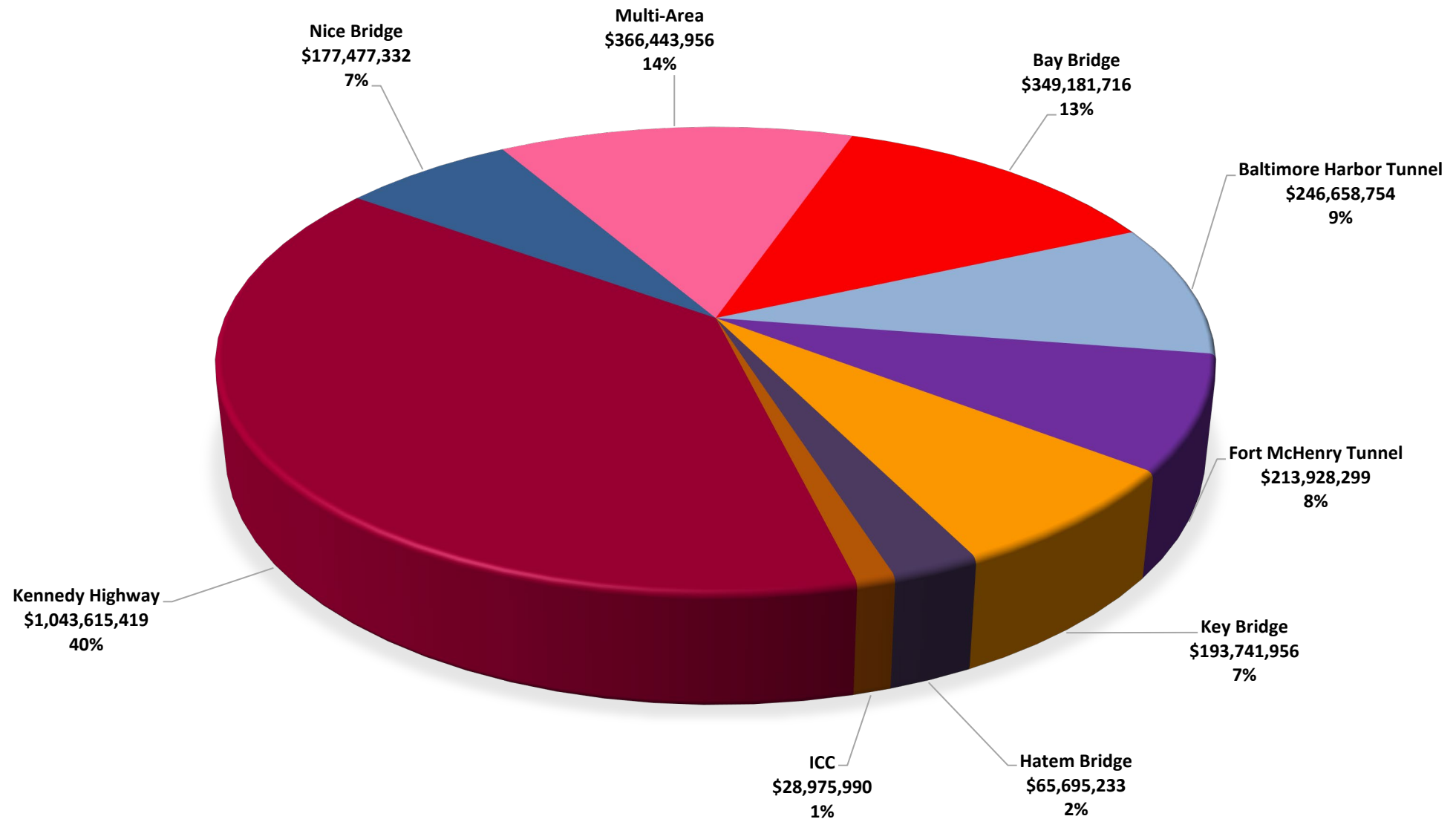
Reserves (\$000)		
	FY 2023-2028 Budget Change	
Allocated Reserve - Enhancement Projects	(51,482)	
Allocated Reserve - System Preservation Projects	(28,804)	
Total Reserve Changes	(80,286)	

Changes from Draft to Final FY 2023-2028 CTP (\$000)		
	FY 2023-2028 Budget Change	
Budget Changes - Projects	132,932	
Budget Changes - Reserves	(80,286)	
Net Changes	52,646	

FY 2023-2028 Final Consolidated Transportation Program

Where are the Projects?

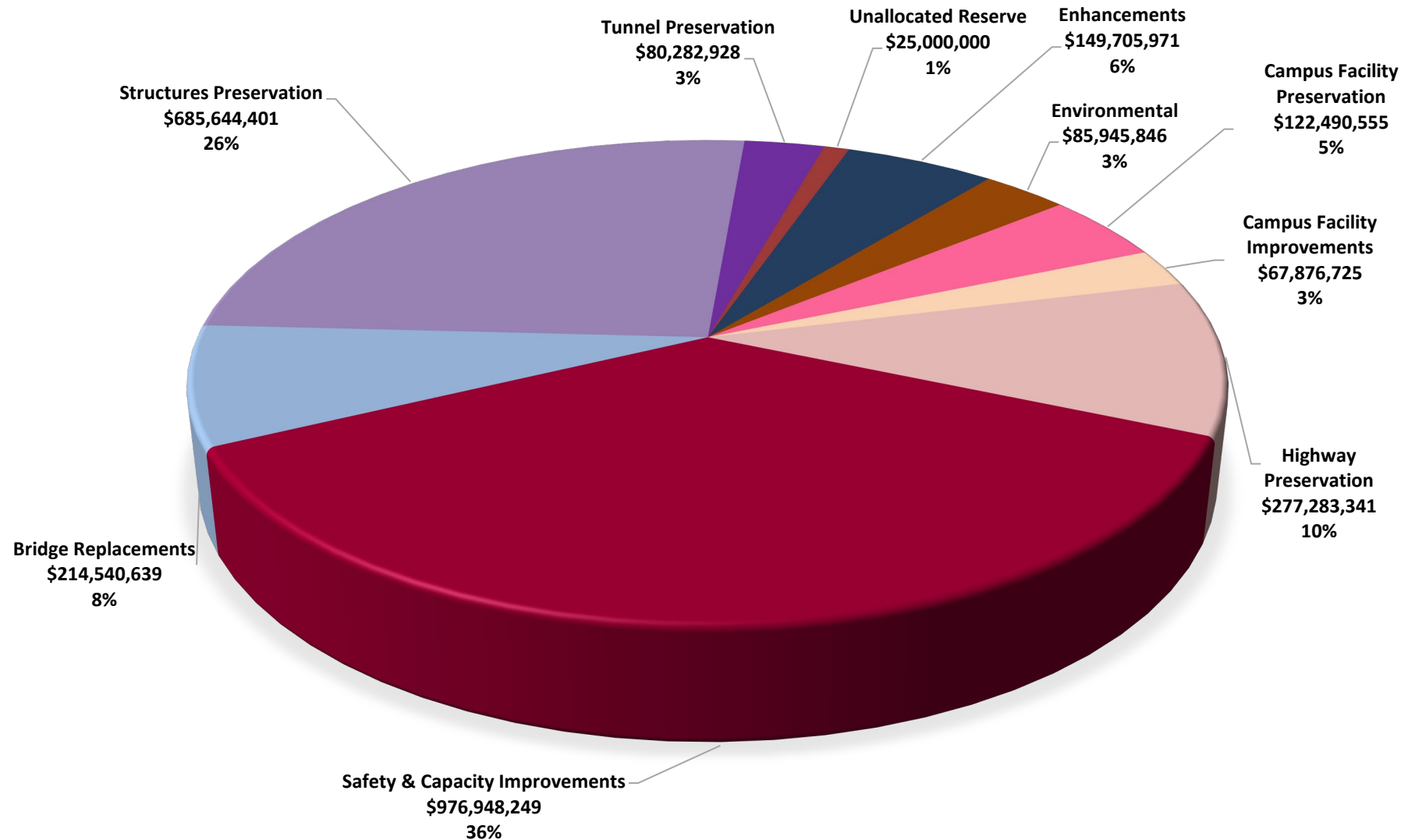
FY 2023-2028 CTP = \$2.7 Billion



FY 2023-2028 Final Consolidated Transportation Program

What are the Categories of Projects?

FY 2023-2028 CTP = \$2.7 Billion



TAB 9



Maryland Transportation Authority

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
James F. Ports, Jr., Chairman

Board Members:

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
PRESENTED BY: Director of Finance Chantelle Green
SUBJECT: Fiscal Year 2023-2028 Financial Forecast
DATE: November 17, 2022

PURPOSE OF MEMORANDUM

To request a recommendation of approval of the Fiscal Year (FY) 2023-2028 Financial Forecast.

SUMMARY

This forecast includes the November T&R forecast, the Final FY 2023 - 2028 Consolidated Transportation Program (CTP), and the Preliminary FY 2024 Operating budget.

For the forecast period (FY 2023 – 2028), MDTA remains in compliance with its financial goals and legal standards.

- Throughout the forecast period (FY 2023 – 2028), the MDTA meets its financial goals:
 - \geq \$350 million in unencumbered cash, and
 - \geq 2.0 debt service coverage.
- MDTA remains above its trust agreement rate covenant (net revenues \geq 1.0 x sum of 120% debt service + deposits to M&O account).
- No systemwide toll increases are needed in the near-term.
- Debt to be issued during the forecast period totals \$908.3 million. This amount includes \$708.3 million in revenue bonds and a \$200.0 million TIFIA Loan from the United States Department of Transportation.
- Maximum outstanding indebtedness within the forecast period remains below the statutory cap of \$3.0 billion.
- Debt service paid over the forecast period is \$962.2 million.

ANALYSIS

The primary differences between the current forecast and the June 2022 forecast are:

- Reduced total revenue of \$33.2 million throughout the forecast period. The \$31.6 million reduction in toll revenue is primarily due to the tapering of collected backlogged transactions, lingering effects of COVID-19, and the near-term impact of the Customer Assistance Plan.
- Increased operating budget expenses of \$26.4 million, mostly due to salary increases effective November 1, 2022, that are compounded throughout the forecast period.
- Increased capital budget expenses of \$52.6 million which is primarily due to the rollover of unexpended funds from FY 2022 into subsequent fiscal years.
- Increased debt issuances: Over the forecast period, revenue bond issuances (including TIFIA) increase by \$35.8 million. Higher debt issuances are the result of anticipated operating budget increases and lower toll revenues that reduce the amount of projected net revenue available for PAYGO capital spending.

Assumptions

- Traffic and Toll Revenue Forecast: CDM Smith November 2022
- Final FY 2023 – 2028 CTP
- Preliminary FY 2024 Operating Budget
- Postponement of TIFIA loan draw to January 2024 (FY 2024)

Evaluation Criteria

Adhere to MDTA goals and policies:

- \geq \$350 million unrestricted cash
- \geq 2.0 debt service coverage
- Rate covenant ratio \geq 1.0 sum of 120% debt service plus deposits to M&O account
- Debt outstanding \leq \$3 billion
- Forecast tests the need for potential future system-wide toll increases. (None needed in the near-term)

ATTACHMENT

- Financial Forecast

MARYLAND TRANSPORTATION AUTHORITY
CASH FLOW FORECAST
FY 2022 - 2028

In Millions \$	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Revenues							
Toll Revenues	\$806.9	\$716.6	\$732.8	\$744.1	\$746.3	\$753.5	772.3
Concessions Revenue	5.8	3.9	3.9	3.9	3.9	3.9	3.9
Investment Income & Other Revenue	(16.8)	48.0	7.1	6.3	6.3	6.3	6.3
MDOT Loan Repayment - Interest	0.5	1.0	0.2	0.2	0.2	0.2	0.2
BWI/Port Police Reimbursement	31.4	35.2	38.9	38.9	40.5	42.1	43.8
Total Revenues	\$827.8	\$804.6	\$782.9	\$793.4	\$797.2	\$806.0	\$826.5
Operating Expenses							
Operating Account Budget	\$356.6	\$387.2	\$391.4	\$407.4	\$423.7	\$440.6	458.2
Debt Service	105.0	137.8	145.7	150.8	166.6	176.8	184.5
Total Operating Expenses	\$461.6	\$525.0	\$537.1	\$558.1	\$590.3	\$617.4	\$642.7
Operating Revenue Net of Expenses	\$366.2	\$279.6	\$245.7	\$235.3	\$206.9	\$188.6	\$183.8
Capital Expenses							
2023-2028 Total CTP	\$496.2	\$534.4	\$627.9	\$492.3	\$401.0	\$334.9	\$295.1
Total Expenses (Operating + Capital)	\$957.8	\$1,059.5	\$1,165.0	\$1,050.5	\$991.2	\$952.3	\$937.8
Capital Funding Source / (Uses) and Intergovernmental							
Revenue Bonds	\$0.0	\$0.0	\$0.0	\$257.1	\$194.4	\$146.1	\$110.7
TIFIA	-	-	200.0	-	-	-	-
Surety Policy	(1.2)	-	(0.5)	(0.5)	(0.3)	(0.3)	(0.2)
MDOT Loan Repayment - Principal	4.7	49.9	1.5	1.5	1.5	1.5	1.6
Less: VDOT Contribution	7.7	3.8	-	-	-	-	-
Less: I-95 Interchange Partner Contribution	-	-	20.0	-	-	-	-
Accrual Accounting Reconciliation	25.4	-	-	-	-	-	-
Total Current Year Sources (Uses) Available	36.5	53.8	220.9	258.1	195.5	147.4	112.1
Annual Cash Requirements	921.2	1,005.7	944.1	792.4	795.7	805.0	825.7
Annual Cash Surplus/Deficit	(\$93.4)	(\$201.1)	(\$161.2)	\$1.0	\$1.4	\$1.1	\$0.8
Total Cash Balance	\$745.7	\$544.6	\$383.3	\$384.4	\$385.8	\$386.9	\$387.6
Bonds Outstanding (≤\$3.0 b.)	\$2,083.6	\$2,061.6	\$2,203.9	\$2,400.8	\$2,532.4	\$2,606.2	\$2,638.2
Financial Coverage Ratios							
Unencumbered Cash (\$350MM minimum)	\$489.5	\$511.5	\$350.3	\$351.3	\$352.8	\$353.8	\$354.6
Debt Service Coverage (≥2.0x)	4.6	3.0	2.7	2.6	2.2	2.1	2.0
Rate Covenant Compliance (Legal - 1.0x)	3.8	2.4	2.2	2.1	1.8	1.7	1.6

TAB 10



Maryland
Transportation
Authority

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
James F. Ports, Jr., Chairman

Board Members:
Dontae Carroll
William H. Cox, Jr.
William C. Ensor, III
W. Lee Gaines, Jr.

Mario J. Gangemi, P.E.
Cynthia D. Penny-Ardinger
Jeffrey S. Rosen
John F. von Paris

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
FROM: Director of Finance Chantelle Green
SUBJECT: Bi-annual Review of Revenue Sufficiency
DATE: November 17, 2022

PURPOSE OF MEMORANDUM

To provide the Maryland Transportation Authority (MDTA) Board with a bi-annual review of revenue sufficiency for the Fiscal Year (FY) 2023-2028 financial forecast period.

SUMMARY

The MDTA Board Operating Policy requires a bi-annual review of revenue sufficiency to determine if current rate and fee levels are appropriate based on levels of expected spending. The most recent financial forecast shows that current toll rates, fees, and discounts provide enough revenue over the near-term to meet forecasted spending and meet all legal and policy requirements.

ANALYSIS

The Board Operating Policy requires that the Executive Director or designee perform a bi-annual review of the adequacy of forecasted revenue as a function of forecasted traffic volumes, projected operating and capital budgets, and debt service obligations. Per the policy, the revenue review should include toll rates, service and administrative fees, and frequency of use and commuter discount programs. The results must be reported to the Board at a public meeting. This bi-annual test was last completed in June 2022.

If approved, the November 2022 financial forecast shows that the MDTA will meet all financial goals and legal requirements over the six-year forecast period. The table below shows the results for the FY 2023-2028 timeframe.

Bi-annual Review of Revenue Sufficiency
Page Two

	Required	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Rate Covenant	≥ 1.0	2.4	2.2	2.1	1.8	1.7	1.6
Debt Service Coverage	≥ 2.0	3.0	2.7	2.6	2.2	2.1	2.0
Unencumbered Cash	$\geq \$350\text{M}$	\$633M	\$362M	\$351M	\$353M	\$354M	\$355M

Adherence to Financial Goals and Requirements

Source: November 2022 Financial Forecast

Given that the Agency meets its financial coverage ratios and targeted unencumbered cash position, the MDTA's current toll rates, fees, and discounts provide enough revenue in the near-term to meet forecasted spending as well as all legal and policy requirements.

TAB 11



Board Members:

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
FROM: Director of Budget Jeffrey Brown
SUBJECT: Fiscal Year (FY) 2023 Operating Budget vs. Actual Spending Review
DATE: November 17, 2022

PURPOSE

The purpose of the memorandum is to advise the Maryland Transportation Authority Board on the status of the 1st Quarter Year-To-Date (YTD) spending against the Fiscal Year (FY) 2023 Operating Budget.

KEY TAKEAWAYS

Key takeaways regarding YTD spending against the FY 2023 Operating Budget:

- As of September 30, 2022, 11% of the budget was spent compared to a target of 23%.
- All objects are at or below the targeted spending level.
- The primary drivers for the reduced spending are personnel vacancies, seasonality of expenses, and 1st quarter accruals.

SUMMARY

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

- Salaries & Wages/Technical & Special Fees (Objects 01 & 02) are below budget at 19% spent. Object 01 is at 19% spent and Object 02 is at 2% spent. Employee vacancies account for the performance in Objects 01 & 02.
- Communications (Object 03) is below budget at a 7% spend.
 - State Paid Telecommunications (0305) is at a 0% spend and accounts for the performance in object 03. This line item contains the State Radio System (\$1.8 million budget), which invoices the MDTA once per year.

- Travel (Object 4) is below budget at a 13% spend.
- Fuel and Utilities (Object 06) is below budget at a 10% spend. This is typically heavier during the winter months.
 - Electricity (0620) is below budget at a 9% spend. This will increase with the opening of the Nice Bridge and the expected catch up in delayed billing at other facilities (Baltimore & Ft. McHenry Tunnels, Key Bridge).
- Motor Vehicle Operations and Maintenance (Object 07) is below budget at an 14% spend. The cost is dependent upon when the vehicle orders are filled.
- Contractual Services (Object 08) are below budget target with an -2% spend. Significant spending variances include:
 - Advertising (0801) is at a 1% spend. Underspend is due to the timing of invoices and activity.
 - Engineers (0807) is at a 3% spend – this is due to a billing timing.
 - Equipment Repairs & Maintenance (0809) is over budget at a 91% spend. This is due to the IT storage and blade service maintenance billing, which occurs once a year.
 - Building/Road Repairs & Maintenance (0812) is below budget at a 9% spend. This is expected to be on budget.
 - Janitorial Services (0813) is over budget with a 31% spend. Billing delays account for the higher than budget spend, as FY 22 bills are being paid in FY 23.
 - Education & Training (0819) is below budget with a 4% spend. Expenses do not occur evenly by month, but this is expected to be on budget
 - Management Studies (0821) is below budget with a 5% spend. This will come back to budget when the studies are enacted.
 - The Primarily IT Objects (0841 through 0869) are collectively at a 16% spend compared to the budget, which is close to the expected spend.
 - *E-ZPass*® Service Center Costs (0873) is at a -27% spend due to the reversal of an accrual. The actual expenses have not yet been paid.
 - Other Contractual Services (0899) is at a 2% spend. There was a coding error for MSP indirect costs and a billing lag.
- Supplies & Materials (Object 09) is at an 13% spend:
 - Roadway Maintenance Materials (0905) is at an 8% spend – this is a seasonal item.
 - Salt (0906) is 0% spend.
 - Ammunition (0934) is 61% spend. The annual taser contract payment (\$312k) account for most of the variance. Also, partial shipments of back ordered ammunition were received.

- *E-ZPass* Transponders (0951) are at a 10% spend but it is expected to be on budget for the full year.
- Replacement Equipment (Object 10) is on budget at a 21% spend.
 - Replacement Equipment (Object 1033) is at a 1% spend due to timing. This is expected to be on budget.
 - Other Replacement Equipment (1099) drives the variance with 63% spent. PPE equipment has been received and this is expected to be on budget.
- Additional Equipment (Object 11) is at a 7% spend.
 - Additional Maintenance & Building Equipment (1113) drives the variance with a 3% spend rate. This is expected to be on budget.
- Fixed Costs (Object 13) is under budget at a 1% spend.
 - Insurance (1309) is a one-time invoice of \$4.5 million that has not occurred.

ATTACHMENT

- Budget vs Actual by Object 1st Qtr. FY 23

MDTA OPERATING FUND
Bgt vs. Actual by Obj and RC Detail
Summary of All Units
For the Three Months Ending Friday, September 30, 2022

	<u>Expenditures</u>		<u>YTD</u>		<u>%</u>
	<u>This Month</u>	<u>Budget</u>	<u>Expense</u>	<u>Balance</u>	<u>Spent</u>
OBJECT 01 Salaries and Wages					
0101 REGULAR EARNINGS	\$6,389,395	\$120,475,029	\$18,912,503	\$101,562,526	15.70%
0102 ADDITIONAL ASSISTANCE		194,092		194,092	0.00%
0104 OVERTIME EARNINGS	439,702	4,955,951	1,258,780	3,697,171	25.40%
0104 OVERTIME EARNINGS - SNOW		1,339,686	3,091	1,336,595	0.23%
0105 SHIFT DIFFERENTIAL		993,334	2,380	990,954	0.24%
0110 MISCELLANEOUS P/R ADJUSTMENTS		1,421,356	29,287	1,392,069	2.06%
0111 ACCRUED LEAVE PAYMENTS		192,471	93,433	99,038	48.54%
0112 RECLASSIFICATIONS		410,058		410,058	0.00%
0151 SOCIAL SECURITY CONTRIBUTIONS		8,594,673	3,141	8,591,532	0.04%
0152 HEALTH INSURANCE		19,173,822	(3,125)	19,176,947	(0.02%)
0154 RETIREE'S HLTH INSURANCE PREM		10,257,987	(412)	10,258,398	(0.00%)
0161 EMPLOYEES RETIREMENT SYSTEM		14,507,714	2,706	14,505,008	0.02%
0165 STATE POLICE RETIREMENT SYSTEM		3,078,695	85,320	2,993,375	2.77%
0169 LAW ENFORCEMENT OFF PENSION SYS		20,014,531		20,014,531	0.00%
0171 BURDEN EXPENSE	6,167,229		18,069,443	(18,069,443)	0.00%
0174 UNEMPLOYMENT COMPENSATION		337,343	457	336,886	0.14%
0175 WORKERS COMPENSATION		3,923,031		3,923,031	0.00%
0189 TURNOVER		(12,047,501)		(12,047,501)	0.00%
0199 OTHER FRINGE BENE - CLOTH ALLOW		853,363	172,892	680,471	20.26%
Total Object 01	12,996,327	198,675,634	38,629,897	160,045,738	19.44%
Object 02 Technical and Special Fees					
0202 PER DIEM PAYMENTS		150,000	19,544	130,456	13.03%
0211 EMPLOYEE AWARDS		1,000		1,000	0.00%
0220 SPECIAL PAYMENTS PAYROLL		748,548		748,548	0.00%
Total Object 02		899,548	19,544	880,004	2.17%
Object 03 Communications					
0301 POSTAGE	1,274	71,118	2,410	68,708	3.39%
0302 TELEPHONE	25,721	228,558	44,912	183,646	19.65%
0303 TELECOMMUNICATIONS	56,682	770,517	97,791	672,726	12.69%
0305 STATE PAID TELECOMMUNICATIONS		1,725,000		1,725,000	0.00%
0306 CELL PHONE EXPENDITURE	32,842	410,706	74,413	336,294	18.12%
Total Object 03	116,518	3,205,899	219,526	2,986,373	6.85%
Object 04 Travel					
0401 IN STATE/ROUTINE OPERATIONS	345	31,363	1,517	29,846	4.84%
0402 IN STATE/CONF/SEMINARS	2,078	57,229	5,702	51,527	9.96%
0403 OUTSTATE/ROUTINE OPERATIONS	1,585	55,193	1,739	53,454	3.15%
0404 OUTSTATE/CONF/SEMINARS	30,026	269,937	43,950	225,987	16.28%
Total Object 04	34,033	413,722	52,907	360,815	12.79%
Object 06 Fuel and Utilities					
0603 FUEL-OIL #2	4,953	139,100	9,587	129,514	6.89%
0606 FUEL-NATURAL GAS/PURCHASE	4,266	197,146	11,798	185,349	5.98%
0620 UTILITIES-ELECTRICITY	151,336	3,445,787	326,029	3,119,758	9.46%
0621 UTILITIES-WATER/SEWERAGE	43,990	318,758	78,856	239,902	24.74%
Total Object 06	204,545	4,100,791	426,269	3,674,522	10.39%
Object 07 Motor Vehicle Operations and Maintenance					
0701 PURCHASE VEHICLE-CAR, LIGHT	446,245	7,981,882	1,329,287	6,652,595	16.65%

MDTA OPERATING FUND
Bgt vs. Actual by Obj and RC Detail
Summary of All Units
For the Three Months Ending Friday, September 30, 2022

		Expenditures		YTD		%
		This Month	Budget	Expense	Balance	Spent
0702	VEHICLE GAS & OIL	277,432	3,765,454	385,649	3,379,805	10.24%
0703	VEHICLE MAINTENANCE	118,789	1,777,957	250,274	1,527,683	14.08%
0704	INSURANCE		407,863		407,863	0.00%
0721	VEHICLE GAS & OIL - W	6,911	44,347	7,429	36,918	16.75%
0722	VEHICLE MAINT & REPA	5,290	61,431	6,566	54,865	10.69%
0724	BOAT SLIP RENTAL/LAUNCHING FEES		4,200		4,200	0.00%
0730	PURCH VEH-OTHER LAND VEH - DUMP, TRACTOR			80	(80)	0.00%
0731	GAS & OIL - OTHER LAN	109,458	990,000	150,070	839,930	15.16%
0732	LG VEHICLE MAINT & R	144,311	2,000,000	342,049	1,657,951	17.10%
0789	COMMUTER CHARGE	(1,341)	(5,000)	(3,822)	(1,178)	76.44%
0799	OTHER MOTOR VEHICLE CHARGES		50,000		50,000	0.00%
Total Object 07		1,107,095	17,078,134	2,467,581	14,610,553	14.45%
Object 08 Contractual Services						
0801	ADVERTISING/LEGAL PR	5,063	3,250,353	32,263	3,218,090	0.99%
0802	APPLICATIONS SOFTWARE	3,245	100,000	40,663	59,337	40.66%
0804	PRINTING/REPRODUCTION		22,000	146	21,854	0.67%
0807	ENGINEERS	224,498	3,750,000	316,564	3,433,436	8.44%
0807	ENGINEERS - Environmental	185,178	2,600,000	220,129	2,379,871	8.47%
0807	ENGINEERS - Highways (M	233	245,000	233	244,767	0.10%
0807	ENGINEERS - Architectura	36,590	260,000	(9,951)	269,951	(3.83%)
0807	ENGINEERS - ITS/Electric	106,056	650,000	104,964	545,036	16.15%
0807	ENGINEERS - Structural (M	46,153	1,500,000	37,949	1,462,052	2.53%
0807	ENGINEERS - Traffic (MA	145,321	1,500,000	123,979	1,376,021	8.27%
0807	ENGINEERS - Asset Mgmt	31,565	700,000	31,565	668,435	4.51%
0807	ENGINEERS - On-Call (All	816,379	2,700,000	10,999	2,689,001	0.41%
0807	ENGINEERS - Annual Insp	196,205	15,000,000	(4,318)	15,004,318	(0.03%)
0808	EQUIPMENT RENTAL	40,782	502,101	74,179	427,922	14.77%
0809	EQUIPMENT REPAIRS & MAINT		1,610,607	1,467,799	142,808	91.13%
0810	EXTERMINATION		16,771		16,771	0.00%
0812	BUILDING/ROAD REPAIR	295,271	14,608,242	581,943	14,026,299	3.98%
0812	BUILDING/ROAD REPAIR	638,335		726,939	(726,939)	0.00%
0813	JANITORIAL SERVICES	162,269	1,431,411	443,684	987,727	31.00%
0814	GROUNDS MAINTENANCE		46,490		46,490	0.00%
0815	LAUNDRY	243	3,199	302	2,897	9.45%
0817	LEGAL SERVICES	3,935	204,381	7,685	196,696	3.76%
0819	EDUCATION/TRAINING (26,689	1,355,688	56,476	1,299,212	4.17%
0820	MEDICAL CARE		271,720	13,919	257,801	5.12%
0821	MGMT STUDIES AND CC	218,298	3,448,658	164,399	3,284,259	4.77%
0823	SECURITY SERVICES	31,228	981,190	193,755	787,435	19.75%
0824	LABORATORY SERVICES		47,736		47,736	0.00%
0825	VETERINARIAN	107	31,565	7,075	24,490	22.41%
0826	FREIGHT AND DELIVER'	287	18,720	528	18,192	2.82%
0827	TRASH AND GARBAGE F	18,099	446,051	97,559	348,492	21.87%
0828	OFFICE ASSISTANCE		61,244	1,392	59,852	2.27%
0829	FISCAL SERVICES	1,484,591	18,859,000	3,621,310	15,237,690	19.20%
0841	DP CENTRAL PROCESS S	72,283	1,100,000	135,998	964,002	12.36%
0843	DP COMMUNICATIONS (68,644	480,000	68,644	411,356	14.30%
0849	TELECOMM LINES, MOE	18,066	98,453	30,906	67,547	31.39%
0854	COMPUTER MAINTENANCE CONTRACT		183,160		183,160	0.00%
0858	SOFTWARE LICENSES	950	146,302	6,350	139,952	4.34%

MDTA OPERATING FUND
Bgt vs. Actual by Obj and RC Detail
Summary of All Units
For the Three Months Ending Friday, September 30, 2022

	Expenditures		YTD	Balance	%
	This Month	Budget	Expense		Spent
0862 APPL SOFTWARE MAINT	307,480	2,218,082	728,519	1,489,563	32.84%
0864 SYSTEMS SOFTWARE M	27,424	500,000	28,861	471,139	5.77%
0865 OUTSIDE SVCS-SYS ANA	801,517	7,317,000	981,097	6,335,903	13.41%
0866 OUTSIDE SVCS-PROGRA	48,535	415,000	51,238	363,762	12.35%
0869 OUTSIDE SVCS-COMPUT	11,088	762,000	11,088	750,912	1.46%
0873 OUTSIDE SVC - E-Z PASS	332,492	50,154,944	(13,554,725)	63,709,669	(27.03%)
0874 OFFICE OF ATTORNEY GENERAL FEE		44,265		44,265	0.00%
0875 RETIREMENT AGENCY ADMIN FEE		204,565		204,565	0.00%
0876 STATEWIDE DOIT SERVICES		80,604		80,604	0.00%
0894 STATEWIDE PERSONNEL SYS ALLOC		55,433		55,433	0.00%
0897 STATE ENTERPRISE BUDGET SYSTEM		27,574		27,574	0.00%
0899 OTHER CONTRACTUAL	35,008	2,668,679	65,879	2,602,800	2.47%
Total Object 08	6,440,106	142,678,187	(3,082,018)	145,760,206	(2.16%)

Object 09 Supplies and Materials

0901 AGRICULTURE	90	30,740	6,246	24,494	20.32%
0902 OFFICE SUPPLIES	15,187	396,672	43,248	353,424	10.90%
0903 ELECTRICAL MATERIAL	5,474	428,043	46,278	381,765	10.81%
0904 BUILDING & HOUSEHOL	27,974	403,664	60,266	343,399	14.93%
0905 ROADWAY MAINT MATI	27,637	670,774	53,215	617,559	7.93%
0906 SALT/SNOW MELTING MATERIALS		1,566,823		1,566,823	0.00%
0908 HOUSEKEEPING SUPPLI	248	76,069	5,548	70,520	7.29%
0909 MEDICAL SUPPLIES	370	40,314	2,122	38,192	5.26%
0912 WEARING APPAREL-UNI	40,936	1,110,734	199,944	910,790	18.00%
0915 LIBRARY SUPPLIES	2,713	23,675	2,713	20,962	11.46%
0917 SMALL TOOLS	13,897	384,798	27,117	357,682	7.05%
0918 VETERINARY SUPPLIES	1,062	29,381	3,053	26,328	10.39%
0920 FOOD	4,500	185,414	20,921	164,494	11.28%
0926 DATA PROCESSING SUP	224	41,774	1,188	40,586	2.84%
0934 AMMO GUNS FIRING RA	11,272	576,321	348,944	227,377	60.55%
0951 E-ZPASS TRANSPONDER	401,546	4,365,000	438,799	3,926,202	10.05%
0999 OTHER SUPPLIES AND M	5,093	307,428	84,248	223,180	27.40%
Total Object 09	558,223	10,637,624	1,343,847	9,293,777	12.63%

Object 10 Replacement Equipment

1002 REPL AUDIO-VISUAL EQ	1,308		1,308	(1,308)	0.00%
1013 REPL MAINTENANCE & BUILDING EQU		496,500	7,516	488,984	1.51%
1015 REPL OFFICE EQUIPMEN	1,112	74,907	1,699	73,208	2.27%
1019 REPL RADIOS & ELECTRONIC EQUIPME		206,000	242	205,758	0.12%
1031 REPL DP EQUIP-MAINFRAME		75,000		75,000	0.00%
1033 REPL DP EQUIP-MICROC	6,483	1,250,000	9,547	1,240,453	0.76%
1036 REPL DP EQUIP-PERIPHERALS			14,044	(14,044)	0.00%
1099 OTHER REPLACEMENT I	594,093	978,900	613,193	365,707	62.64%
Total Object 10	602,995	3,081,307	647,550	2,433,757	21.02%

Object 11 Additional Equipment

1102 ADDT'L AUDIO-VISUAL	195	12,500	195	12,305	1.56%
1103 ADDT'L CLEANING EQUIPMENT		10,000		10,000	0.00%
1109 ADDT'L HUMAN ENVIRC	1,847	1,000	1,847	(847)	184.74%
1113 ADDT'L MAINTENANCE & BUILDING EC		501,000	14,999	486,001	2.99%
1115 ADDT'L OFFICE EQUIPMENT		35,000	15,933	19,067	45.52%

MDTA OPERATING FUND
Bgt vs. Actual by Obj and RC Detail
Summary of All Units
For the Three Months Ending Friday, September 30, 2022

	Expenditures		YTD	Balance	%
	This Month	Budget	Expense		Spent
1133 ADDT'L DP EQUIP-MICROCOMPUTER		100,000		100,000	0.00%
1199 OTHER ADDITIONAL EQ	23,696	472,085	41,705	430,380	8.83%
Total Object 11	25,738	1,131,585	74,679	1,056,905	6.60%
Object 13 Fixed Charges					
1302 INSURANCE COVERAGE PAID TO STO		468,408		468,408	0.00%
1303 RENT PAID TO DGS		1,100		1,100	0.00%
1304 SUBSCRIPTIONS	1,121	53,160	1,218	51,942	2.29%
1305 ASSOCIATION DUES	2,034	254,605	5,031	249,574	1.98%
1308 LICENSES	626	9,770	1,543	8,227	15.80%
1309 INSURANCE (NON STO PAYMENTS)		4,463,488		4,463,488	0.00%
1320 BAD DEBT EXPENSE			32,361	(32,361)	0.00%
Total Object 13	3,781	5,250,531	40,154	5,210,378	0.76%
Total All Objects	22,089,360	387,152,963	40,839,935	346,313,028	10.55%

TAB 12



Maryland Transportation Authority

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
James F. Ports, Jr., Chairman

Board Members:

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
FROM: Capital Program Manager Jeanne Marriott
SUBJECT: First Quarter Review of Fiscal Year 2023 Capital Budget vs. Actual Spending
DATE: November 17, 2022

PURPOSE OF MEMORANDUM

The purpose of the memorandum is to update the MDTA Board on the status of actual Fiscal Year (FY) 2023 capital spending against the FY 2023 capital budget in the FY 2023-2028 Draft Consolidated Transportation Program (CTP). This information was presented to the MDTA Finance Committee on November 10, 2022.

SUMMARY

As of September 30, 2022, 11.9% of the FY 2023 budget was spent as compared to the targeted spending level of 25%. The total budget for FY 2023 is \$556.0 million. The actual spending through the first quarter was \$65.9 million. The first quarter percentage is low because there are outstanding accruals for work completed in FY 2022.

ANALYSIS

Eighty-two of the 91 projects budgeted in FY 2023 were within the acceptable spending limits of 0% to 50% (plus or minus 25% of the 25% 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 first quarter for ten projects budgeted for more than \$11 million each in FY 2023 was \$51.6 million. The ten projects are detailed in Attachment A.

ATTACHMENT

- Attachment A – FY 2023 Capital Program Spending – Projects with FY 2023 Budget Over \$11 Million

**FY 2023 Capital Program Spending
Compared to Draft FY 2023-2028 CTP Budget
Projects with FY 2023 Budget Over \$11 Million**

Project Name	FY 2023 Budget Draft FY23-28 CTP (\$ Million)	FY 2023 Actual thru 9/30/2022 (\$ Million)	Q1 Spend Rate	FY 2023 Amount Remaining (\$ Million)
Replace Nice/Middleton Bridge	\$116.2	\$23.2	20%	\$93.0
I-95 ETL Northbound Extension - Express Toll Lanes to MD 152	\$80.0	\$7.3	9%	\$72.7
I-95 ETL Northbound Extension - MD 152 Interchange Reconstruction	\$68.1	\$11.8	17%	\$56.3
I-95 ETL Northbound Extension - MD 24 to Bynum Run	\$18.0	\$0.0	0%	\$18.0
Rehabilitate Decks of Eastbound Span - Phase I	\$17.6	\$0.2	1%	\$17.4
I-95/Belvidere Road Interchange	\$17.3	\$1.4	8%	\$15.9
Rehabilitate Fort McHenry Tunnel Vent Fans	\$15.5	\$2.8	18%	\$12.7
Replace Electronic Toll Collection and Operating System - 3rd Generation	\$12.6	\$4.9	39%	\$7.7
10-Year Equipment Budget - FY 2018 - FY 2027	\$11.9	\$0.0	0%	\$11.9
I-95 ETL Northbound Extension - Eccelston Mitigation	\$11.8	\$0.0	0%	\$11.8
Total	<u>\$369.0</u>	<u>\$51.6</u>	<u>14%</u>	<u>\$317.4</u>

TAB 13



Maryland Transportation Authority

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
James F. Ports, Jr., Chairman

Board Members:

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
PREPARED BY: Director of Revenue Cheryl Lewis-Orr
PRESENTED BY: Chief Financial Officer Deborah Sharpless
SUBJECT: First Quarter Fiscal Year 2023 Traffic and Revenue Performance Report
DATE: November 17, 2022

PURPOSE

To provide the Maryland Transportation Authority Board with a quarterly and year-to-date update regarding traffic and toll revenue trends compared to the previous year and the forecast.

SUMMARY

Each quarter, an independent quarterly review of traffic and revenue is prepared by CDM Smith, Inc. (MDTA's traffic and revenue consultant). The quarterly review looks at traffic and toll revenue trends and compares actual system-wide experience with traffic and toll revenue forecasts. CDM Smith continues to track and evaluate the performance of traffic at the lane level and traffic and revenue collected on a cash basis.

The key takeaways regarding (year-to-date) traffic and revenue performance are as follows:

- Passenger vehicle traffic levels continue to track closely to pre-pandemic levels which can be seen in Figure 1 on Page 2 of the attached First Quarter Fiscal Year (FY) 2023 Traffic and Revenue Performance Report.
- Commercial vehicle traffic levels continue to outperform pre-pandemic levels which can also be seen in Figure 1 on Page 2 of the attached First Quarter FY 2023 Traffic and Revenue Performance Report.
- Systemwide, transactions and revenue exceeded the forecast by 2.8 percent and 7.7 percent, respectively. When adjusting for timing differences, systemwide revenue exceeded the forecast by \$4.3 million, or 2.3 percent.

First Quarter Fiscal Year 2023 Traffic and Revenue Performance Report
Page Two

ANALYSIS

As shown in the Table below, for the quarter ended September 30, 2022, systemwide transactions totaled 42.2 million and corresponding collected revenue totaled \$202.3 million. This represents a decrease of 0.5 million transactions, or 1.3 percent, compared to the quarter ended September 30, 2021. Revenue increased by \$5.4 million, or 2.7 percent, compared to the same period last year.

Actual transactions were above forecast by 1.2 million, or 2.8 percent, and revenue was above forecast by \$14.5 million, or 7.7 percent, for the quarter ended September 30, 2022. When adjusting for timing differences, systemwide revenue exceeded the forecast by \$4.3 million, or 2.3%. The deviation in actual performance compared to the forecast (adjusted for timing differences) was due to a combination of factors, including the back-office processing of 6 more days during the first quarter than forecasted and 1.1 million more NOTDs than forecasted.

**FY 2023 Actuals compared to FY 2022 Actuals
and FY 2023 Forecast versus FY2023 Actuals**

Combined Facilities														
TRANSACTIONS (in Millions)								REVENUE (in Millions)						
	FY22	FY23			FY22			FY22	FY23			FY23		
	Actual	Actual	Diff	% Change	Forecast	Diff	% Diff	Actual	Actual	Diff	% Change	Forecast	Diff	% Diff
Qtr. 1	42.7	42.2	(0.5)	-1.3%	41.0	1.2	2.8%	\$ 197.0	\$ 202.3	\$ 5.4	2.7%	\$ 187.8	\$ 14.5	7.7%
YTD Totals	42.7	42.2	(0.5)	-1.3%	41.0	1.2	2.8%	\$ 197.0	\$ 202.3	\$ 5.4	2.7%	\$ 187.8	\$ 14.5	7.7%

*Note: Numbers may not sum due to rounding

ATTACHMENTS

- Attachment A: Summary of Revenue Adjusted for Timing Differences
- Attachment B: Comparison of Official Forecast to Actual Toll Revenue Performance
- Attachment C: Analysis of Actual Toll Revenue Performance & Financial Forecast Differences
- Attachment D: FY 2023 Forecast vs Actual Revenue – by Facility
- Attachment E: FY 2023 Forecast vs. Actual Revenue – By Payment Method
- First Quarter FY 2023 Traffic and Revenue Performance Report

First Quarter Fiscal Year 2023 Traffic and Revenue Performance Report
Page Three

Attachment A

Summary of Revenue – Adjusted for Timing Differences
FY 2023 Forecasted and Actual Revenue Comparison

	E-ZPass®	Video, Administrative ¹ & Pay-By-Plate	Total
Forecast Revenue	\$147,665,022	\$40,184,388	\$187,849,410
<i>less</i> Actual Revenue	169,358,894	32,970,595	202,329,489
Unadjusted Difference	21,693,872	(7,213,792)	14,480,079
<i>plus</i> Timing Differences	(8,179,953)	(2,029,267)	(10,209,220)
Adjusted Difference	\$13,513,918	(\$9,243,059)	\$4,270,859

¹ Includes items such as Hatem Bridge discount plan (\$20.00 annual plan), oversize permit fees, transponder sales, civil penalties, unused trips, commercial post-usage discount & monthly account fees (non-Maryland addresses).

Attachment B

Comparison of Official Forecast to Actual Toll Revenue Performance
(In millions)

July 1, 2022 to Sep 30, 2022		
Toll Revenue Forecast:		\$187,849,410
Actual Revenue:		
<i>E-ZPass</i>	169,358,894	
Pay-By-Plate	850,261	
Video Toll	27,846,727	
Administrative Toll	4,273,606	
Total Actual Revenue		202,329,488
Unadjusted Actual Revenue <i>less</i> Forecasted Revenue		14,480,078
Timing Difference Estimates:		
<u>E-ZPass FY2023 (Current) Transaction Timing Differences</u>		
Posted More Days than Forecasted, as of Sep 30, 2022		
▪ All Facilities: <i>E-ZPass</i> AVI Maryland & Non-Maryland (6 days)	(8,392,977)	
▪ All Facilities: <i>E-ZPass</i> I-Tolls Maryland and Non-Maryland Behind (1 day)	213,024	
Total Posted More Days than Forecasted, net	(8,179,953)	
Total <i>E-ZPass</i> FY2023 Transaction Timing Differences		(8,179,953)
<u>Video Toll Timing Differences:</u>		
Mailed 1.1M more Transactions than Forecasted (Jul-Sep 2022)	(2,029,266)	
Total Video Tolls Timing Differences		(2,029,266)
Total Timing Difference Estimates		(10,209,219)
Adjusted Actual Revenue <i>less</i> Forecasted Revenue		\$4,270,859

First Quarter Fiscal Year 2023 Traffic and Revenue Performance Report
Page Four

Attachment C

Analysis of Actual Toll Revenue Performance & Financial Forecast Differences

Adjusted Difference (Forecast less Adjusted Actual Revenue)	\$4,270,859
Forecast Assumption Differences:	
<i>E-ZPass</i> Transactions not included in the Forecast (FY 2021 & 2022)	4,569,795
<i>E-ZPass</i> Daily Average Revenue Higher than Forecast (FY2023)	8,588,983
Pay-By-Plate Usage Lower than Forecasted	368,125
Video Toll Average Toll Rate Lower than Forecast	(437,437)
Video Toll and Central Collection Unit Collection Rate Lower than Forecasted	(11,473,331)
Administrative Toll Revenue Higher than Forecasted	2,416,606
Total Forecast Assumption Differences	4,032,742
Unreconciled/Analyzed Difference	(\$238,117)

Attachment D

FY 2023 Forecast vs. Actual Revenue – By Facility

Legacy Facilities						
Video, Pay-By- Plate & Other	E-ZPass		July	August	September	Total
		Forecast	\$ 47,471,718	\$ 42,351,028	\$ 39,675,474	\$ 129,498,220
		Actual	47,471,718	42,866,442	60,776,297	\$ 151,114,457
	Difference	(0)	515,414	21,100,823	\$ 21,616,236	
		Forecast	10,625,199	12,844,763	13,851,285	\$ 37,321,248
		Actual	11,319,714	9,739,499	7,627,937	\$ 28,687,151
		Difference	694,515	(3,105,264)	(6,223,348)	\$ (8,634,097)
	Total	Forecast	58,096,917	55,195,791	53,526,759	\$ 166,819,468
		Actual	58,791,432	52,605,941	68,404,234	\$ 179,801,607
		Difference	\$ 694,515	\$ (2,589,850)	\$ 14,877,475	\$ 12,982,139
Intercounty Connector						
Video, Pay-By- Plate & Other	E-ZPass		July	August	September	Total
		Forecast	\$ 4,527,768	\$ 4,807,871	\$ 5,106,502	\$ 14,442,141
		Actual	4,527,768	4,198,483	5,908,850	\$ 14,635,101
	Difference	-	(609,388)	802,348	\$ 192,960	
		Forecast	1,142,044	742,716	788,290	\$ 2,673,049
		Actual	1,284,443	1,193,724	1,579,033	\$ 4,057,200
		Difference	142,400	451,008	790,743	\$ 1,384,151
	Total	Forecast	5,669,811	5,550,587	5,894,791	\$ 17,115,190
		Actual	5,812,211	5,392,207	7,487,883	\$ 18,692,301
		Difference	\$ 142,400	\$ (158,380)	\$ 1,593,091	\$ 1,577,111
I-95 Express Toll Lanes						
Video, Pay-By- Plate & Other	E-ZPass		July	August	September	Total
		Forecast	\$ 1,123,818	\$ 1,399,619	\$ 1,201,225	\$ 3,724,661
		Actual	1,123,818	908,165	1,577,354	\$ 3,609,337
	Difference	0	(491,453)	376,129	\$ (115,324)	
		Forecast	89,882	53,927	46,283	\$ 190,091
		Actual	89,882	73,923	62,439	\$ 226,245
		Difference	-	19,997	16,157	\$ 36,154
	Total	Forecast	1,213,699	1,453,545	1,247,508	\$ 3,914,752
		Actual	1,213,699	982,088	1,639,794	\$ 3,835,581
		Difference	\$ 0	\$ (471,457)	\$ 392,286	\$ (79,171)
All Facilities						
		July	August	September	Total	
	Forecast	\$ 64,980,428	\$ 62,199,923	\$ 60,669,058	\$ 187,849,410	
	Actual	65,817,342	58,980,237	77,531,910	\$ 202,329,489	
	Difference	\$ 836,914	\$ (3,219,687)	\$ 16,862,852	\$ 14,480,079	

Attachment E

FY 2022 Forecast vs. Actual Revenue – By Payment Method

E-ZPass						
Forecast		July	August	September		Total
	Legacy	\$ 47,471,718	42,351,028	39,675,474	✓ \$	129,498,220
	ICC	4,527,768	4,807,871	5,106,502	✓ \$	14,442,141
	ETL	1,123,818	1,399,619	1,201,225	✓ \$	3,724,661
	Total	53,123,304	48,558,518	45,983,201	\$	147,665,022
Actual	Legacy	47,471,718	42,866,442	60,776,297	\$	151,114,457
	ICC	4,527,768	4,198,483	5,908,850	\$	14,635,101
	ETL	1,123,818	908,165	1,577,354	\$	3,609,337
	Total	53,123,303	47,973,090	68,262,500		169,358,894
	Difference	\$ (0)	\$ (585,427)	\$ 22,279,299	\$	21,693,872

Video, Pay-By-Plate & Other						
Forecast		July	August	September		Total
	Legacy	\$ 10,625,199	\$ 12,844,763	\$ 13,851,285	\$	37,321,248
	ICC	1,142,044	742,716	788,290	\$	2,673,049
	ETL	89,882	53,927	46,283	✓ \$	190,091
	Total	11,857,125	13,641,406	14,685,857	\$	40,184,388
Actual	Legacy	\$ 11,319,714	\$ 9,739,499	\$ 7,627,937	\$	28,687,151
	ICC	1,284,443	1,193,724	1,579,033	\$	4,057,200
	ETL	89,882	73,923	62,439	\$	226,245
	Total	12,694,039	11,007,146	9,269,410		32,970,595
	Difference	\$ 836,915	\$ (2,634,259)	\$ (5,416,448)	\$	(7,213,792)

All Revenue						
		July	August	September		Total
Forecast	\$	64,980,428	\$ 62,199,923	\$ 60,669,058	\$	187,849,410
Actual		65,817,342	58,980,237	77,531,910	\$	202,329,489
Difference	\$	836,914	\$ (3,219,687)	\$ 16,862,852	\$	14,480,079



Ms. Deborah Sharpless
November 2, 2022
Page 1

FINAL

Ms. Deborah Sharpless
Chief Financial Officer
Maryland Transportation Authority
2310 Broening Highway
Suite 150
Baltimore, MD 21224

Subject: **FINAL** First Quarter Fiscal Year 2023 Traffic and Revenue Performance Report

Dear Ms. Sharpless:

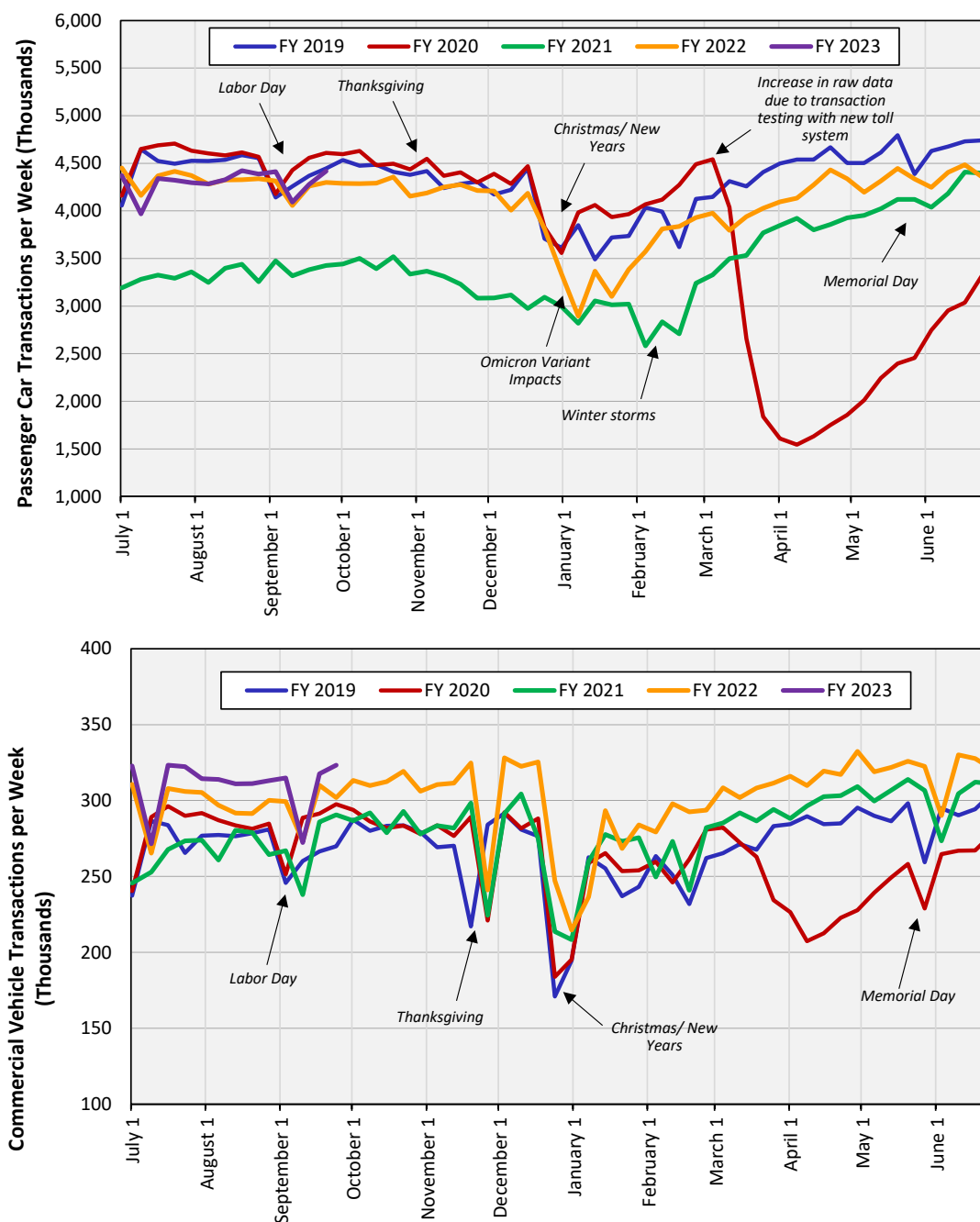
This letter report provides a summary of historical monthly transaction and toll revenue performance on the MDTA system using available data through the first quarter of Fiscal Year (FY) 2023, ending September 30, 2022. The historical performance is also compared to the most recent forecast developed by CDM Smith and summarized in the “FY 2023 Traffic and Toll Revenue Forecast Update”, (November 2022 forecast report) dated November 2, 2022. This comparison is provided separately for the Legacy system, Intercounty Connector (ICC), and I -95 Express Toll Lanes (ETLs), as well as for the total system. An analysis of the variations in actual experience compared to forecast is also provided.

Recent Trends

Similar to FY 2022, FY 2023 transactions and revenue have been impacted by recovery from the COVID-19 pandemic and the customer focused business rule changes implemented by MDTA during that timeframe. Due to this, CDM Smith has continued to track the performance on the system through two sources: the Kapsch 3G toll collection system data reports and the Traffic Volume Income (TVI) reports. The 3G reports provide the raw, in-lane data which records the daily traffic at the roadside, independent of toll collections. TVI reports provide collected transactions and revenue on the system on a cash basis, where a transaction and the associated revenue is reported in the month the toll is paid.

Figure 1 shows the systemwide traffic on the total MDTA system for passenger cars and commercial vehicles from July 2019 through September 2022 using the daily in-lane data. The figure shows that passenger car traffic was negatively impacted in FY 2020 and 2021 from COVID-19, followed by strong recovery in late FY 2021. Traffic volumes in the first half of FY 2022 were close to FY 2019 levels but softened during the second half of FY 2022 due to the impacts of the Omicron variant in January, followed by the impacts of high fuel prices and inflation. Passenger car transaction volumes in the first quarter of FY 2023 are similar to FY 2022 in both volume and weekly variations and have not yet returned to pre-pandemic levels. Commercial vehicle traffic also declined initially due to impacts from COVID-19 but recovered to pre-pandemic levels by August 2020, and through September 2022 continue to outperform growth trends observed prior to the pandemic.

Figure 1 – Total Systemwide Traffic Per Week by Fiscal Year



Source: Maryland Transportation Authority E-ZPass Operations, Daily Transactions

Monthly transactions for FY 2022 and FY 2023 for the total system are presented in **Table 1** by vehicle type and payment method. This table and the remaining tables in this report will present TVI report data and represent transactions and associated revenue in the month the toll is paid. Significant monthly variations can be observed in transaction totals, and the distribution of transactions by payment method. These variations are the result of the timing of transaction processing in the back office, and not reflective of variations in traffic on MDTA system facilities. Total passenger car transactions for the first quarter in FY 2023 were 1.1 percent below the same period in 2022. Commercial vehicle transaction totals in the first quarter of FY 2023 were 3.3 percent lower than Q1 2022. Overall, total system transactions in Q1 2023 were 1.3 percent lower than Q1 2022.

Monthly collected toll revenue for FY 2022 and FY 2023 for the total system are provided in **Table 2**. **Figure 2** is a graphical depiction of the share of toll revenue by method of payment and vehicle class for the same period. Systemwide toll revenue trends for passenger cars are up 3.3 percent in the first quarter of FY 2023 when compared to the same quarter in FY 2022. Revenue for commercial vehicles were also up by 1.8 percent for the same time frame. Overall, first quarter FY 2023 revenue increased 2.7 percent compared with Q1 FY 2022. Monthly variations in revenue totals and the distribution of revenue by payment method parallel those observed in transaction totals.

Lastly, **Table 3** provides the same monthly trend comparison for other revenue. Other revenue is non-toll revenue collected by the agency that is associated with operations. This revenue comes from unused commuter and shopper plan trips, E-ZPass transponder sales, Hatem E-ZPass programs, civil penalties from violation recovery, and commercial vehicle fees and discounts. The commercial vehicle revenue comes from post-usage discounts, high frequency discounts, and over-size permit fees. Since this revenue is associated with collected transactions and revenue, and therefore the delayed NOTDs, year-over-year trends vary greatly on a monthly basis. Overall, other revenue declined by 0.6 percent for the first quarter of FY 2023 when compared to the first quarter of FY 2022. This is the combined result of decreases in violation recovery and commercial vehicle other revenue, and a nearly 300 percent increase in service fees and sales.

Table 1 - Systemwide Collected Transactions by Month

Passenger Car Transactions								
Month	ETC			Video (1)			Total	
	FY 2022	FY 2023	% Change	FY 2022	FY 2023	% Change	FY 2022	FY 2023
July	15,890,063	10,932,349	(31.2)	216,710	1,581,951	630.0	16,106,772	12,514,300
August	11,547,095	9,636,162	(16.5)	526,446	1,435,272	172.6	12,073,541	11,071,434
September	9,933,446	14,153,851	42.5	1,164,573	1,107,514	(4.9)	11,098,019	15,261,364
October	11,762,032	-	-	1,523,444	-	-	13,285,476	-
November	11,122,911	-	-	1,680,798	-	-	12,803,710	-
December	9,908,315	-	-	1,779,346	-	-	11,687,660	-
January	11,194,490	-	-	2,366,321	-	-	13,560,811	-
February	12,229,668	-	-	2,819,346	-	-	15,049,014	-
March	9,095,987	-	-	2,172,697	-	-	11,268,684	-
April	5,592,198	-	-	2,008,917	-	-	7,601,115	-
May	12,673,036	-	-	1,483,362	-	-	14,156,398	-
June	16,183,395	-	-	1,619,242	-	-	17,802,637	-
Q1 Total	37,370,604	34,722,361	(7.1)	1,907,729	4,124,737	116.2	39,278,332	38,847,098
FY Total	137,132,635	-	-	19,361,201	-	-	156,493,836	-
Commercial Vehicle Transactions								
Month	ETC			Video (1)			Total	
	FY 2022	FY 2023	% Change	FY 2022	FY 2023	% Change	FY 2022	FY 2023
July	1,542,993	971,874	(37.0)	4,559	75,556	1,557.3	1,547,552	1,047,430
August	977,866	888,580	(9.1)	19,917	83,576	319.6	997,783	972,156
September	825,232	1,242,309	50.5	40,908	41,611	1.7	866,140	1,283,920
October	1,004,144	-	-	43,127	-	-	1,047,271	-
November	944,843	-	-	45,330	-	-	990,173	-
December	806,059	-	-	55,668	-	-	861,727	-
January	924,797	-	-	71,542	-	-	996,339	-
February	1,127,716	-	-	79,228	-	-	1,206,943	-
March	873,275	-	-	105,128	-	-	978,403	-
April	493,121	-	-	85,450	-	-	578,570	-
May	1,138,558	-	-	44,060	-	-	1,182,618	-
June	1,455,673	-	-	113,063	-	-	1,568,736	-
Q1 Total	3,346,090	3,102,763	(7.3)	65,384	200,743	207.0	3,411,475	3,303,507
FY Total	12,114,274	-	-	707,981	-	-	12,822,255	-
Total Transactions								
Month	ETC			Video (1)			Total	
	FY 2022	FY 2023	% Change	FY 2022	FY 2023	% Change	FY 2022	FY 2023
July	17,433,056	11,904,223	(31.7)	221,269	1,657,508	649.1	17,654,324	13,561,731
August	12,524,961	10,524,742	(16.0)	546,363	1,518,848	178.0	13,071,324	12,043,590
September	10,758,678	15,396,160	43.1	1,205,481	1,149,125	(4.7)	11,964,159	16,545,284
October	12,766,176	-	-	1,566,571	-	-	14,332,747	-
November	12,067,754	-	-	1,726,129	-	-	13,793,883	-
December	10,714,374	-	-	1,835,014	-	-	12,549,388	-
January	12,119,287	-	-	2,437,862	-	-	14,557,149	-
February	13,357,384	-	-	2,898,574	-	-	16,255,958	-
March	9,969,261	-	-	2,277,825	-	-	12,247,086	-
April	6,085,318	-	-	2,094,367	-	-	8,179,685	-
May	13,811,594	-	-	1,527,422	-	-	15,339,016	-
June	17,639,067	-	-	1,732,305	-	-	19,371,373	-
Q1 Total	40,716,694	37,825,125	(7.1)	1,973,113	4,325,480	119.2	42,689,807	42,150,605
FY Total	149,246,909	-	-	20,069,182	-	-	169,316,091	-

⁽¹⁾ Pay-by-plate transactions are included with video transactions.



Ms. Deborah Sharpless
November 2, 2022
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FINAL

Table 2 - Systemwide Collected Toll Revenue by Month

Passenger Car Toll Revenue									
Month	ETC			Video (1)			Total		
	FY 2022	FY 2023	% Change	FY 2022	FY 2023	% Change	FY 2022	FY 2023	% Change
July	\$49,235,597	\$31,841,940	(35.3)	\$ 1,183,201	\$ 9,151,963	673.5	\$50,418,798	\$40,993,903	(18.7)
August	32,805,852	28,158,615	(14.2)	3,078,648	8,202,247	166.4	35,884,500	36,360,862	1.3
September	27,169,087	41,026,423	51.0	6,952,731	5,989,285	(13.9)	34,121,819	47,015,708	37.8
October	32,514,945	-	-	9,057,896	-	-	41,572,841	-	-
November	30,154,657	-	-	10,141,698	-	-	40,296,355	-	-
December	27,125,564	-	-	10,563,313	-	-	37,688,877	-	-
January	31,882,436	-	-	13,438,438	-	-	45,320,873	-	-
February	32,626,281	-	-	15,679,222	-	-	48,305,503	-	-
March	25,428,270	-	-	12,732,098	-	-	38,160,368	-	-
April	14,865,928	-	-	11,373,047	-	-	26,238,975	-	-
May	36,134,398	-	-	8,168,043	-	-	44,302,441	-	-
June	46,605,598	-	-	9,094,060	-	-	55,699,658	-	-
Q1 Total	109,210,537	101,026,979	(7.5)	11,214,580	23,343,495	108.2	120,425,117	124,370,474	3.3
FY Total	386,548,614	-	-	111,462,394	-	-	498,011,008	-	-
Commercial Vehicle Toll Revenue									
Month	ETC			Video (1)			Total		
	FY 2022	FY 2023	% Change	FY 2022	FY 2023	% Change	FY 2022	FY 2023	% Change
July	\$33,671,097	\$21,281,363	(36.8)	\$ 98,037	\$ 2,083,976	2,025.7	\$33,769,134	\$23,365,339	(30.8)
August	20,179,396	19,814,475	(1.8)	607,270	2,218,608	265.3	20,786,666	22,033,083	6.0
September	16,623,164	27,236,078	63.8	1,208,327	1,050,910	(13.0)	17,831,490	28,286,987	58.6
October	20,737,327	-	-	1,198,806	-	-	21,936,133	-	-
November	19,843,452	-	-	1,220,859	-	-	21,064,312	-	-
December	17,413,995	-	-	1,484,747	-	-	18,898,742	-	-
January	19,915,598	-	-	1,824,934	-	-	21,740,531	-	-
February	24,737,926	-	-	2,100,956	-	-	26,838,882	-	-
March	19,539,032	-	-	3,203,955	-	-	22,742,987	-	-
April	10,559,499	-	-	2,483,834	-	-	13,043,333	-	-
May	24,878,346	-	-	1,186,671	-	-	26,065,017	-	-
June	31,421,485	-	-	2,923,537	-	-	34,345,022	-	-
Q1 Total	70,473,657	68,331,916	(3.0)	1,913,633	5,353,493	179.8	72,387,290	73,685,409	1.8
FY Total	259,520,317	-	-	19,541,933	-	-	279,062,250	-	-
Total Toll Revenue									
Month	ETC			Video (1)			Total		
	FY 2022	FY 2023	% Change	FY 2022	FY 2023	% Change	FY 2022	FY 2023	% Change
July	\$82,906,694	\$53,123,304	(35.9)	\$ 1,281,238	\$11,235,938	777.0	\$84,187,932	\$64,359,242	(23.6)
August	52,985,249	47,973,090	(9.5)	3,685,918	10,420,855	182.7	56,671,166	58,393,945	3.0
September	43,792,251	68,262,501	55.9	8,161,058	7,040,194	(13.7)	51,953,309	75,302,695	44.9
October	53,252,272	-	-	10,256,702	-	-	63,508,974	-	-
November	49,998,109	-	-	11,362,558	-	-	61,360,667	-	-
December	44,539,558	-	-	12,048,060	-	-	56,587,619	-	-
January	51,798,033	-	-	15,263,372	-	-	67,061,405	-	-
February	57,364,207	-	-	17,780,177	-	-	75,144,385	-	-
March	44,967,302	-	-	15,936,053	-	-	60,903,355	-	-
April	25,425,427	-	-	13,856,881	-	-	39,282,308	-	-
May	61,012,744	-	-	9,354,714	-	-	70,367,458	-	-
June	78,027,083	-	-	12,017,597	-	-	90,044,680	-	-
Q1 Total	179,684,194	169,358,895	(5.7)	13,128,213	28,696,988	118.6	192,812,407	198,055,883	2.7
FY Total	646,068,931	-	-	131,004,326	-	-	777,073,257	-	-

⁽¹⁾ Pay-by-plate revenue is included with video revenue.

Figure 2 – Total System Collected Revenue by Payment Type and Vehicle Class

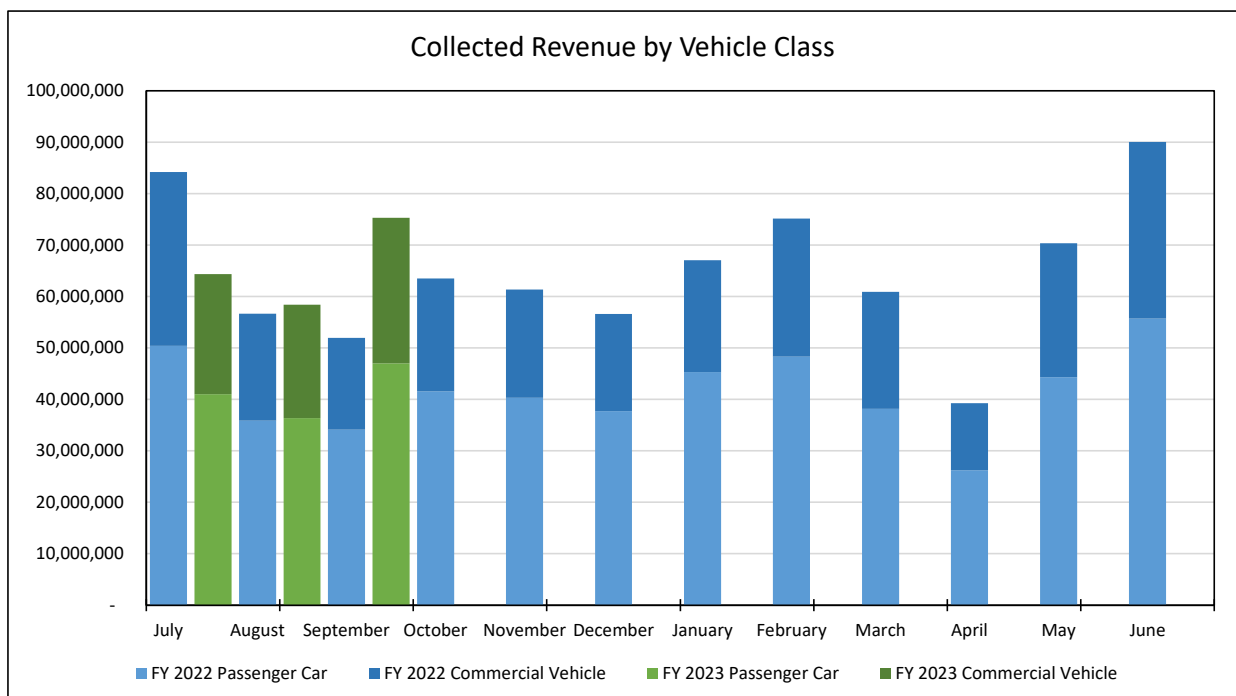
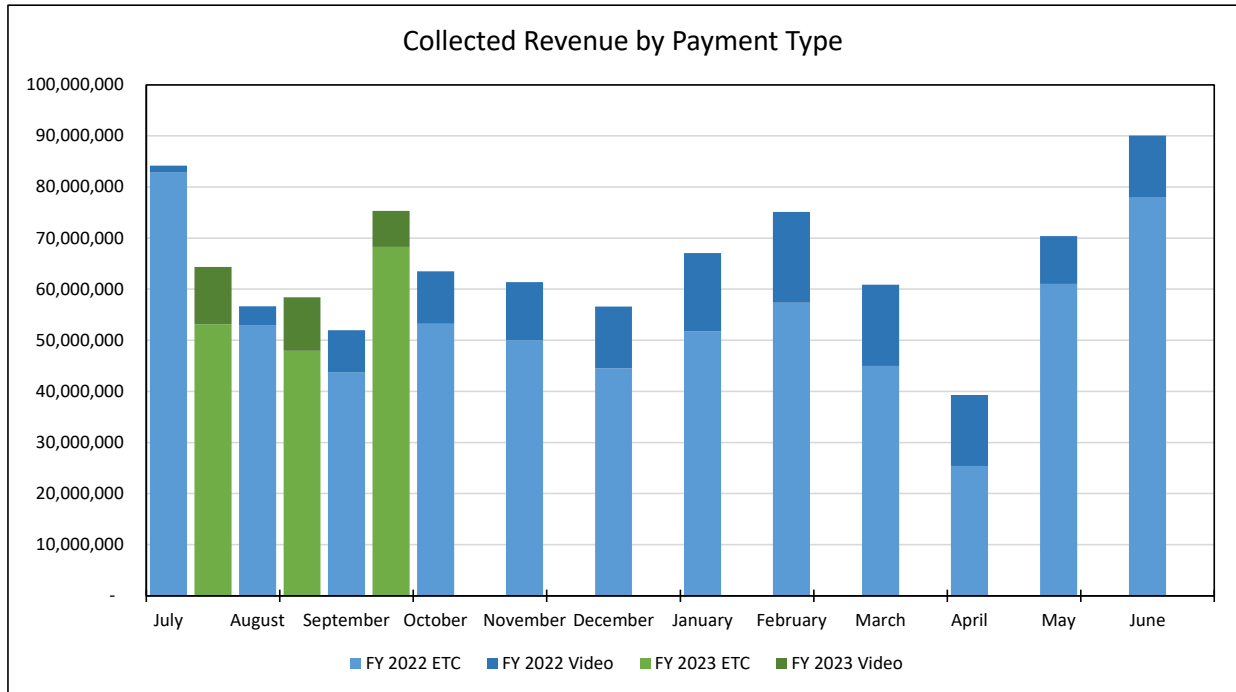


Table 3 – Other Revenue Trends by Month

Month	Service Fees and Sales ⁽¹⁾			Violation Recovery ⁽²⁾			Commercial Vehicles ⁽³⁾			Total Other Revenue		
	FY 2022	FY 2023	% Change	FY 2022	FY 2023	% Change	FY 2022	FY 2023	% Change	FY 2022	FY 2023	% Change
July	\$ 140,056	\$ 2,213,317	1,480.3	\$ 1,997,861	\$ 34,164	(98.3)	\$ 57,633	\$ (789,381)	(1,469.7)	\$ 2,195,550	\$ 1,458,100	(33.6)
August	124,052	1,304,985	952.0	1,122,871	\$ 42,198	(96.2)	(1,114,191)	\$ (760,892)	31.7	132,732	586,291	341.7
September	1,209,421	2,363,096	95.4	846,086	\$ 912,009	7.8	(84,677)	\$ (1,045,889)	(1,135.1)	1,970,829	2,229,215	13.1
October	1,445,585	-	-	1,489,347	-	-	(2,503,394)	-	-	431,538	-	-
November	1,491,780	-	-	3,024,869	-	-	(1,715,748)	-	-	2,800,901	-	-
December	1,389,602	-	-	3,602,653	-	-	(772,320)	-	-	4,219,935	-	-
January	1,413,421	-	-	4,146,765	-	-	(812,169)	-	-	4,748,017	-	-
February	1,523,573	-	-	4,220,168	-	-	(640,115)	-	-	5,103,626	-	-
March	610,277	-	-	2,922,553	-	-	(807,480)	-	-	2,725,351	-	-
April	23,328	-	-	414,296	-	-	(738,983)	-	-	(301,360)	-	-
May	1,548,931	-	-	347,361	-	-	(807,045)	-	-	1,089,247	-	-
June	2,246,483	-	-	66,652	-	-	(757,584)	-	-	1,555,551	-	-
Q1 Total	1,473,529	5,881,399	299.1	3,966,818	988,370	(75.1)	(1,141,236)	(2,596,163)	(127.5)	4,299,111	4,273,606	(0.6)
FY Total	13,166,508	-	-	24,201,483	-	-	(10,696,073)	-	-	26,671,918	-	-

(1) Service fees and sales includes unused pre-paid trip revenue, transponder sales, and the Hatem E-ZPass discount plans.

(2) Violation recovery is civil penalties collected on unpaid notices of toll due.

(3) Commercial vehicles include post-usage discounts, high frequency discounts, and oversize permit fees.

Forecast Versus Actual

In this section, actual collected transactions and revenue are compared to the November 2022 forecast for each of the facilities. **Table 4** provides the comparison for the Legacy system transactions by vehicle type and method of payment and **Table 5** shows the same comparison for collected toll revenue. As shown in Table 4, total transactions were 4.7 percent above forecast. Passenger cars were 4.2 percent above forecast and commercial vehicles were 10.7 percent above forecast. This is due, in part, to the back office processing an additional six days of ETC transactions over what was anticipated in the forecast for the first quarter. More specifically, there was a six-day shortfall in ETC transaction processing in August followed by 12 additional days of transaction processing in September over what was expected. The impacts of this can be seen in August transaction totals which fell 11.3 percent below forecast and September transaction totals which exceeded forecast by 27.7 percent.

As shown in Table 5, collected toll revenue on the Legacy System showed similar trends versus forecast as those seen in transactions, including significant variations in monthly totals and distribution by payment method. Passenger car revenue was 3.8 percent above forecast, and commercial vehicle revenue exceeded forecast by 11.1 percent. Overall, Legacy System collected toll revenue for the first quarter of FY 2023 was 6.6 percent above forecast.

Table 4 - Comparison of FY 2023 Forecast and Actual Transactions - Legacy System

FY 2023 Passenger Car Transactions									
Month	ETC			Video (1)			Total		
	Forecast	Actual	% Change	Forecast	Actual	% Change	Forecast	Actual	% Change
July	8,122,338	8,031,550	(1.1)	1,167,785	1,167,785	0.0	9,290,123	9,199,335	(1.0)
August	7,591,822	7,043,884	(7.2)	1,607,166	1,021,127	(36.5)	9,198,989	8,065,011	(12.3)
September	6,960,948	10,308,566	48.1	1,708,576	716,122	(58.1)	8,669,524	11,024,687	27.2
October	7,199,214	-	-	1,700,481	-	-	8,899,695	-	-
November	6,977,727	-	-	1,318,723	-	-	8,296,450	-	-
December	7,061,484	-	-	1,294,899	-	-	8,356,383	-	-
January	6,379,768	-	-	1,215,101	-	-	7,594,869	-	-
February	6,107,124	-	-	1,071,880	-	-	7,179,004	-	-
March	6,916,564	-	-	1,161,603	-	-	8,078,167	-	-
April	7,176,615	-	-	1,258,989	-	-	8,435,604	-	-
May	7,249,092	-	-	1,337,345	-	-	8,586,437	-	-
June	7,245,802	-	-	1,438,748	-	-	8,684,549	-	-
Q1 Total	22,675,109	25,383,999	11.9	4,483,527	2,905,034	(35.2)	27,158,636	28,289,033	4.2
FY Total	84,988,498	-	-	16,281,296	-	-	101,269,794	-	-
FY 2023 Commercial Vehicle Transactions									
Month	ETC			Video (1)			Total		
	Forecast	Actual	% Change	Forecast	Actual	% Change	Forecast	Actual	% Change
July	832,887	832,887	0.0	65,285	65,285	0.0	898,172	898,172	0.0
August	778,651	768,974	(1.2)	60,851	71,021	16.7	839,502	839,995	0.1
September	760,712	1,068,496	40.5	65,673	32,690	(50.2)	826,385	1,101,186	33.3
October	773,576	-	-	65,645	-	-	839,220	-	-
November	753,584	-	-	51,839	-	-	805,423	-	-
December	752,986	-	-	51,015	-	-	804,001	-	-
January	724,067	-	-	47,849	-	-	771,915	-	-
February	676,482	-	-	40,900	-	-	717,382	-	-
March	773,007	-	-	43,769	-	-	816,776	-	-
April	744,329	-	-	46,279	-	-	790,608	-	-
May	794,657	-	-	49,370	-	-	844,027	-	-
June	780,181	-	-	52,960	-	-	833,141	-	-
Q1 Total	2,372,250	2,670,357	12.6	191,810	168,996	(11.9)	2,564,060	2,839,354	10.7
FY Total	9,145,120	-	-	641,434	-	-	9,786,554	-	-
FY 2023 All Vehicle Transactions									
Month	ETC			Video (1)			Total		
	Forecast	Actual	% Change	Forecast	Actual	% Change	Forecast	Actual	% Change
July	8,955,225	8,864,437	(1.0)	1,233,071	1,233,071	0.0	10,188,296	10,097,508	(0.9)
August	8,370,473	7,812,858	(6.7)	1,668,018	1,092,148	(34.5)	10,038,491	8,905,006	(11.3)
September	7,721,661	11,377,062	47.3	1,774,249	748,812	(57.8)	9,495,909	12,125,873	27.7
October	7,972,790	-	-	1,766,126	-	-	9,738,916	-	-
November	7,731,311	-	-	1,370,561	-	-	9,101,873	-	-
December	7,814,470	-	-	1,345,914	-	-	9,160,384	-	-
January	7,103,835	-	-	1,262,950	-	-	8,366,785	-	-
February	6,783,606	-	-	1,112,780	-	-	7,896,386	-	-
March	7,689,571	-	-	1,205,372	-	-	8,894,943	-	-
April	7,920,945	-	-	1,305,268	-	-	9,226,212	-	-
May	8,043,749	-	-	1,386,715	-	-	9,430,464	-	-
June	8,025,983	-	-	1,491,707	-	-	9,517,691	-	-
Q1 Total	25,047,359	28,054,357	12.0	4,675,337	3,074,030	(34.3)	29,722,696	31,128,387	4.7
FY Total	94,133,618	-	-	16,922,730	-	-	111,056,348	-	-

⁽¹⁾ Pay-by-plate transactions are included with video transactions.



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Table 5 - Comparison of FY 2023 Forecast and Actual Toll Revenue - Legacy System

FY 2023 Passenger Car Revenue									
Month	ETC			Video (1)			Total		
	Forecast	Actual	% Change	Forecast	Actual	% Change	Forecast	Actual	% Change
July	\$ 27,084,097	\$ 27,084,097	0.0	\$ 8,049,781	\$ 8,049,781	(0.0)	\$ 35,133,878	\$ 35,133,878	(0.0)
August	23,528,619	23,833,494	1.3	10,412,541	7,099,739	(31.8)	33,941,159	30,933,233	(8.9)
September	21,247,273	34,663,364	63.1	11,275,430	4,704,289	(58.3)	32,522,703	39,367,653	21.0
October	22,119,345	-	-	11,303,082	-	-	33,422,427	-	-
November	21,382,053	-	-	8,896,053	-	-	30,278,107	-	-
December	21,803,245	-	-	8,739,181	-	-	30,542,426	-	-
January	19,147,267	-	-	8,216,176	-	-	27,363,443	-	-
February	18,270,694	-	-	7,239,841	-	-	25,510,535	-	-
March	20,971,059	-	-	7,757,309	-	-	28,728,368	-	-
April	22,369,556	-	-	8,452,360	-	-	30,821,916	-	-
May	22,389,081	-	-	8,993,905	-	-	31,382,986	-	-
June	22,410,600	-	-	9,691,816	-	-	32,102,416	-	-
Q1 Total	71,859,989	85,580,956	19.1	29,737,752	19,853,810	(33.2)	101,597,741	105,434,765	3.8
FY Total	262,722,890	-	-	109,027,474	-	-	371,750,364	-	-

FY 2023 Commercial Vehicle Revenue									
Month	ETC			Video (1)			Total		
	Forecast	Actual	% Change	Forecast	Actual	% Change	Forecast	Actual	% Change
July	\$ 20,387,621	\$ 20,387,621	0.0	\$ 2,000,390	\$ 2,000,390	0.0	\$ 22,388,012	\$ 22,388,012	0.0
August	18,822,409	19,032,948	1.1	1,882,272	2,129,287	13.1	20,704,682	21,162,235	2.2
September	18,428,201	26,112,932	41.7	2,083,500	982,711	(52.8)	20,511,701	27,095,643	32.1
October	18,894,686	-	-	2,117,554	-	-	21,012,240	-	-
November	18,314,446	-	-	1,724,754	-	-	20,039,200	-	-
December	18,219,898	-	-	1,702,452	-	-	19,922,350	-	-
January	17,543,863	-	-	1,584,279	-	-	19,128,142	-	-
February	16,384,015	-	-	1,329,076	-	-	17,713,091	-	-
March	18,719,767	-	-	1,379,864	-	-	20,099,631	-	-
April	18,084,964	-	-	1,448,470	-	-	19,533,434	-	-
May	19,370,420	-	-	1,541,719	-	-	20,912,140	-	-
June	18,926,020	-	-	1,651,832	-	-	20,577,853	-	-
Q1 Total	57,638,231	65,533,501	13.7	5,966,163	5,112,388	(14.3)	63,604,394	70,645,889	11.1
FY Total	222,096,310	-	-	20,446,164	-	-	242,542,474	-	-

FY 2023 All Vehicle Revenue									
Month	ETC			Video (1)			Total		
	Forecast	Actual	% Change	Forecast	Actual	% Change	Forecast	Actual	% Change
July	\$ 47,471,718	\$ 47,471,718	0.0	\$ 10,050,172	\$ 10,050,172	0.0	\$ 57,521,890	\$ 57,521,890	0.0
August	42,351,028	42,866,442	1.2	12,294,813	9,229,026	(24.9)	54,645,841	52,095,468	(4.7)
September	39,675,474	60,776,297	53.2	13,358,930	5,687,000	(57.4)	53,034,404	66,463,296	25.3
October	41,014,031	-	-	13,420,636	-	-	54,434,667	-	-
November	39,696,500	-	-	10,620,807	-	-	50,317,307	-	-
December	40,023,143	-	-	10,441,633	-	-	50,464,776	-	-
January	36,691,130	-	-	9,800,455	-	-	46,491,585	-	-
February	34,654,709	-	-	8,568,917	-	-	43,223,625	-	-
March	39,690,826	-	-	9,137,173	-	-	48,827,999	-	-
April	40,454,520	-	-	9,900,830	-	-	50,355,350	-	-
May	41,759,502	-	-	10,535,624	-	-	52,295,126	-	-
June	41,336,620	-	-	11,343,648	-	-	52,680,269	-	-
Q1 Total	129,498,220	151,114,457	16.7	35,703,915	24,966,198	(30.1)	165,202,135	176,080,654	6.6
FY Total	484,819,200	-	-	129,473,638	-	-	614,292,838	-	-

⁽¹⁾ Pay-by-plate revenue is included with video revenue.

Table 6 provides the comparison for trips and collected toll revenue on the ICC by method of payment. The ICC trended similarly to the Legacy system with trips and revenue. As shown, FY 2023 first quarter trips were 0.6 percent below forecast and collected revenue was 7.5 percent above forecast.

Table 7 shows the comparison for total transactions and collected toll revenue for the I-95 ETLs. I-95 ETL transactions and revenue in the first quarter of FY 2023 were below forecast by 7.8 and 2.0 percent, respectively. This amounts to a negative forecast variance of approximately 0.2 million transactions and \$0.1 million.

Table 8 provides a comparison for the total MDTA system transactions and revenue, including all facilities and other revenue. When considering the systemwide performance, transactions in the first quarter were higher than the forecast by 2.8 percent. The associated collected toll and other revenue in the first quarter was 7.7 percent above forecast.

Table 6 – Comparison of FY 2023 Forecast and Actual Monthly Collected Trips and Toll Revenue, Intercounty Connector

Month	FY 2023 Trips								
	ETC			Video ⁽¹⁾			Total		
	Forecast	Actual	% Change	Forecast	Actual	% Change	Forecast	Actual	% Change
July	2,300,824	2,300,824	0.0	369,253	386,853	4.8	2,670,077	2,687,677	0.7
August	2,715,800	2,121,790	(21.9)	234,583	395,499	68.6	2,950,383	2,517,289	(14.7)
September	2,751,740	2,993,067	8.8	251,497	377,683	50.2	3,003,237	3,370,750	12.2
October	2,919,313	-	-	251,544	-	-	3,170,857	-	-
November	2,578,511	-	-	201,940	-	-	2,780,451	-	-
December	2,429,857	-	-	195,608	-	-	2,625,465	-	-
January	2,288,959	-	-	181,096	-	-	2,470,056	-	-
February	2,207,628	-	-	165,640	-	-	2,373,268	-	-
March	2,752,484	-	-	175,367	-	-	2,927,851	-	-
April	2,697,837	-	-	186,462	-	-	2,884,299	-	-
May	2,866,793	-	-	201,103	-	-	3,067,896	-	-
June	2,808,521	-	-	216,177	-	-	3,024,699	-	-
Q1 Total	7,768,363	7,415,681	(4.5)	855,333	1,160,035	35.6	8,623,697	8,575,716	(0.6)
FY Total	31,318,267	-	-	2,630,271	-	-	33,948,538	-	-

Month	FY 2023 Collected Toll Revenue								
	ETC			Video ⁽¹⁾			Total		
	Forecast	Actual	% Change	Forecast	Actual	% Change	Forecast	Actual	% Change
July	\$4,527,768	\$4,527,768	0.0	\$1,056,694	\$1,095,885	3.7	\$5,584,462	\$5,623,652	0.7
August	4,807,871	4,198,483	(12.7)	660,987	1,117,906	69.1	5,468,858	5,316,389	(2.8)
September	5,106,502	5,908,850	15.7	715,225	1,290,755	80.5	5,821,727	7,199,606	23.7
October	5,406,494	-	-	715,795	-	-	6,122,289	-	-
November	4,515,389	-	-	578,614	-	-	5,094,003	-	-
December	4,261,235	-	-	560,605	-	-	4,821,839	-	-
January	3,990,287	-	-	521,105	-	-	4,511,392	-	-
February	3,852,893	-	-	480,860	-	-	4,333,753	-	-
March	4,819,984	-	-	511,127	-	-	5,331,111	-	-
April	4,724,303	-	-	546,487	-	-	5,270,789	-	-
May	5,022,046	-	-	591,031	-	-	5,613,076	-	-
June	4,938,375	-	-	636,551	-	-	5,574,925	-	-
Q1 Total	14,442,141	14,635,102	1.3	2,432,906	3,504,546	44.1	16,875,047	18,139,647	7.5
FY Total	55,973,146	-	-	7,575,079	-	-	63,548,225	-	-

⁽¹⁾ Pay-by-Plate is included in video trips and revenue.

Table 7 – Comparison of FY 2023 Forecast and Actual Monthly Collected Transactions and Toll Revenue, I-95 Express Toll Lanes

Month	Transactions			Revenue		
	Forecast	Actual	% Change	Forecast	Actual	% Change
July	776,546	776,546	0.0	\$ 1,213,699	\$ 1,213,699	0.0
August	1,010,043	621,295	(38.5)	1,453,545	982,088	(32.4)
September	866,871	1,048,661	21.0	1,247,508	1,639,793	31.4
October	1,015,072	-	-	1,460,782	-	-
November	975,439	-	-	1,403,746	-	-
December	972,663	-	-	1,399,752	-	-
January	727,942	-	-	1,047,576	-	-
February	840,091	-	-	1,208,968	-	-
March	882,139	-	-	1,269,479	-	-
April	1,046,822	-	-	1,506,473	-	-
May	1,023,058	-	-	1,472,275	-	-
June	1,008,589	-	-	1,451,452	-	-
Q1 Total	2,653,460	2,446,502	(7.8)	3,914,752	3,835,581	(2.0)
FY Total	11,145,276	-	-	16,135,256	-	-

Table 8 – Comparison of FY 2023 Forecast and Actual Monthly Collected Transactions and Total Revenue, Total Systemwide

Month	Transactions				Total Revenue ⁽¹⁾			
	Forecast	Actual	Difference		Forecast	Actual	Difference	
			Number	%			Number	%
July	13,634,919	13,561,731	(73,188)	(0.5)	\$64,980,429	\$65,817,342	\$ 836,912	1.3
August	13,998,917	12,043,590	(1,955,327)	(14.0)	62,199,923	58,980,237	(3,219,686)	(5.2)
September	13,366,017	16,545,284	3,179,267	23.8	60,669,058	77,531,910	16,862,853	27.8
October	13,924,844	-	-	-	62,604,593	-	-	-
November	12,857,762	-	-	-	57,343,566	-	-	-
December	12,758,512	-	-	-	57,221,512	-	-	-
January	11,564,783	-	-	-	54,484,044	-	-	-
February	11,109,745	-	-	-	51,215,407	-	-	-
March	12,704,934	-	-	-	57,718,810	-	-	-
April	13,157,333	-	-	-	61,038,030	-	-	-
May	13,521,418	-	-	-	62,968,680	-	-	-
June	13,550,978	-	-	-	64,111,032	-	-	-
Q1 Total	40,999,853	42,150,605	1,150,752	2.8	187,849,410	202,329,489	14,480,079	7.7
FY Total	156,150,162	-	-	-	716,555,084	-	-	-

⁽¹⁾ Total revenue includes toll revenue and other revenue.



Ms. Deborah Sharpless

November 2, 2022

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FINAL

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We appreciate the opportunity to monitor traffic and revenue trends and forecasting performance on the MDTA facilities. Do not hesitate to contact us should you require additional background information on the analysis presented in this report.

Very truly yours,

A handwritten signature in black ink, appearing to read "Adam Aceto".

Adam Aceto
Project Manager
CDM Smith Inc.

A handwritten signature in black ink, appearing to read "Kelly Morison".

Kelly Morison
Task Manager
CDM Smith Inc.

TAB 14



**Maryland
Transportation
Authority**

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
James F. Ports, Jr., Chairman

Board Members:

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

William Pines, PE, Executive Director

MEMORANDUM

TO: MDTA Board
FROM: Chief Financial Officer Deb Sharpless
SUBJECT: Independent Auditors' Report on the Fiscal Year 2022 Financial Statements
DATE: November 17, 2022

PURPOSE OF MEMORANDUM

To present the results of the Financial Statement Audit conducted by the Maryland Transportation Authority's independent auditor, CliftonLarsonAllen, LLP (CLA). CLA presented the report findings contained in the attached presentation to the Finance Committee on November 10, 2022.

SUMMARY

For the Fiscal Year (FY) 2022 financial statements audit period, an unmodified opinion was issued.

ATTACHMENT

- PowerPoint Presentation – MDTA 2022 Financial Audit Results



Maryland Transportation Authority

2022 Financial Audit Results

We'll get you there.



Agenda

- Audit Overview
- Internal Control Deficiencies
- Required Auditor Communications
- Future Considerations



Key Players

- MDTA

- Deborah Sharpless
- Chantelle Green
- Kenneth Montgomery
- Vicky Dobbins

- CLA LLP

- Sean Walker, Principal
- Jatana Coleman, Director
- Josh McClain, Senior



Audit Overview

- Areas of emphasis –
 - Investments
 - Capital assets / leased assets
 - GASB issued Statement No. 87 - *Leases*
 - Long-term debt
 - Revenue (special attention given to estimate for tolling activity)
 - Intergovernmental agency relationship
 - Change to Direct Financing Leases / Intergovernmental Financing Agreements
 - Financial reporting
- Status: Unmodified Opinion Issued



Internal Controls

- Evaluated internal control design for significant account balance and classes of transactions
 - No material weaknesses or significant deficiency identified.
- Context: Internal controls deficiencies that have a likelihood or caused material misstatements in the financial statements prior to finalizing our audit procedures.



Governance Communications

- Significant accounting policies
 - Consistent with prior year
- Accounting estimates
 - Allowance on receivables
 - Unbilled tolling revenue
 - Pollution remediation liabilities
 - Capital asset depreciation
 - Pension liabilities
- Difficulties encountered in performing the audit
 - None



Governance Communications

- Uncorrected misstatements - none
- Corrected misstatements - none
- Disagreements with management - none
- Consultation with other accountants - none
- Significant issues discussed with management prior to retention - none
- Representation from management



Future Considerations

- Updates in government accounting standards
 - GASB issued Statement No. 94, “Public-Private and Public-Public Partnerships and Availability Payment Arrangements”
 - GASB issued Statement No. 96, “Subscription-Based Information Technology Arrangements”
 - GASB issued Statement No. 99, “Omnibus 2022”
 - GASB issued Statement No. 101, “Compensated Absences”
- MDTA does not believe adopting the GASB Statements will have a material impact on the financial statements.



Questions?

We'll get you there.

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TAB 15

VERBAL