



## Goal **Promote Fiscal Responsibility**

Ensure responsible investment and management of taxpayer resources to add value and deliver quality transportation improvements through performance-based decision making and innovative funding mechanisms and partnerships

### **OBJECTIVES:**

- Accelerate project completion through improved and efficient use of alternative project delivery methods and strategic partnerships
- Provide transportation services and solutions that maximize value
- Ensure a consistent revenue stream and ample financing opportunities



As financial custodians of the revenues and user fees that fund Maryland's transportation system, MDOT must maximize the value of its transportation investments while addressing the needs of all users. Fiscal responsibility is realized through thoughtful project and asset management, innovative project delivery, and effective fund management and reallocation. MDOT continues to identify ways to modernize project delivery and fund cost-effective and valuable projects. MDOT MVA's Alternative Service Delivery (ASD) initiative is one example. ASD methods include online and kiosk services, which are now used by 74% of customers to complete a transaction. Allowing customers to conduct MDOT MVA business in multiple ways saves costs for MDOT in the long run.

MDOT SHA made a large investment in the past year to improve incident management. In 2021, MDOT SHA completed the \$5.6 million renovation and reimagining of its Statewide Operations Center (SOC). The original SOC, one of the first such centers in the nation, opened and served the state of Maryland for 25 years. The new layout nearly doubles the original footprint and features an innovative concept called the "operations football," with operators sitting closer together and not directly facing a central video wall. This concept improves communication and collaboration among team members during traffic incidents, emergencies, and storms. Technological advances include an operator's ability to highlight dashboards, weather maps, and web pages on wall monitors, enabling operators to focus on the day's most essential emergencies, such as severe weather and major traffic incidents. The new consoles also provide each workstation with an additional monitor to manage critical situations.

To best utilize available resources to fund critical repairs, replacement, or expand infrastructure, Maryland utilizes innovative alternative delivery methods. Public-Private Partnerships (P3s), Design-Build (DB), Construction Management at Risk Projects (CMAR), and other delivery methods are evaluated for each major project. P3s require underlying revenue sources through state or federal agencies, such as tolls, fares, rents, user fees, or availability payments to the private sector partner.

There are several successful examples of P3s across the state. One example is the high occupancy toll (HOT) lanes project on portions of I-270 and I-495, which is to be managed as a P3 with Australian toll road operator Transurban, who will finance, build, and manage the lanes. This project's environmental impact statement was approved recently by the Federal Highway Administration (FHWA) and will provide congestion relief to some of the country's worst traffic bottlenecks. The P3 agreement with Ports America Chesapeake (PAC) continues to solidify the Port of Baltimore's position as Maryland's economic engine. As a result of continued growth in business, PAC invested in the second 50-foot-deep berth project at Seagirt Marine Terminal. This \$122.1 million investment included \$105 million from PAC, \$10.5 million from the state and \$6.6 million in federal funding. MDTA partnered with Areas USA for the redevelopment and subsequent operations and maintenance of two travel plazas along the I-95 corridor in Harford and Cecil counties. Areas USA financed the \$56 million project completed in 2014 and continues to operate and maintain these plazas through a long-term, 35-year agreement.

There also are valuable P3 examples of DB and CMAR projects. When replacing the 81-year-old Nice/Middleton Bridge with a new, wider, and safer Potomac River crossing, the MDTA was able to reduce the initial \$1 billion price tag by more than \$300 million by taking a practical design approach to the new bridge, which opened three months early in October 2022. The original two-lane, narrow bridge caused almost daily congestion and any routine maintenance and large-scale preservation efforts caused significant traffic impacts. MDOT MAA has embarked on a major terminal improvement program to improve operations and customer service at BWI Marshall Airport through the CMAR delivery method. The project will provide a new state-of-the-art baggage screening system to remove constraints to airline growth, a direct walking path between concourses A and B for connecting passengers, and a host of concessions and passenger improvements. The design is nearing completion as of late FY 2022 and initial enabling tasks, such as fuel hydrant and utility relocations, are under construction.



**OBJECTIVE:** Accelerate project completion through improved and efficient use of alternative project delivery methods and strategic partnerships

MDOT's transportation needs are assessed thoroughly to identify the best delivery method. P3, DB, CMAR projects, and other alternative delivery methods are evaluated for each major project. P3 continues to be an important tool for project delivery across Transportation Business Units (TBUs) in the state. The P3 agreement between PAC and MDOT MPA to modernize the Seagirt Marine Terminal also includes state and federal funding. The Purple Line light rail project will connect Prince George's and Montgomery counties inside the Capital Beltway. MDOT MTA also delivered Camden Station via CMAR. Construction on the MARC Riverside Heavy Maintenance Building was completed in December 2022, and MDOT MTA is planning to deliver the new Eastern Bus Facility. The development of a new American Legion Bridge and the addition of managed lanes on I-495 and I-270 is a P3 project being managed by MDOT SHA and will provide long-term congestion relief within

Montgomery County and future financial benefits to the entire state. MDOT will continue to pursue innovative and alternative contracting and pursue P3 opportunities as feasible and appropriate.

MDTA utilized DB alternative delivery on two major projects. The Nice/Middleton Bridge Replacement project opened to traffic in October 2022. The I-95 and Belvidere Road Interchange project completed planning activities and recently had a groundbreaking in October 2022. MDOT MVA has pursued an innovative delivery approach with the reconstruction of their Glen Burnie headquarters. They are securing a CMAR contract to renovate and consolidate ground floor operations with the ultimate goal of improving customer flow and enhancing customer service.

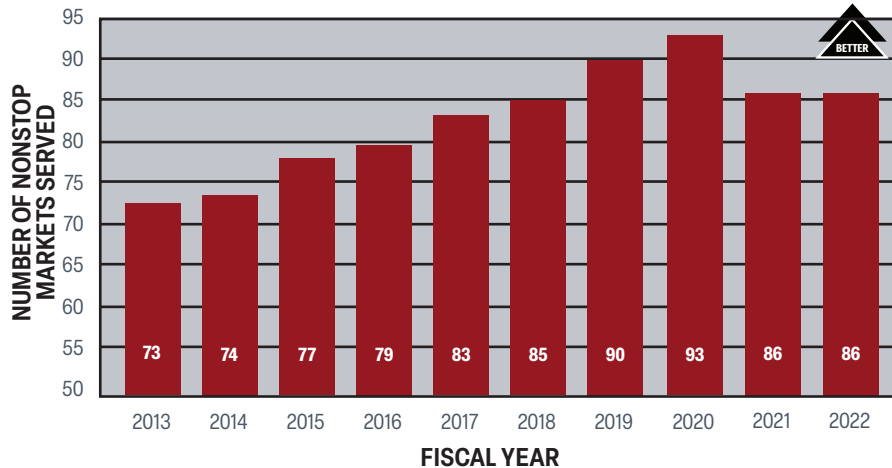




## NUMBER OF NONSTOP AIRLINE MARKETS SERVED



The number of nonstop airline markets served is an example of Maryland's reach regionally, nationwide, and globally. Growth in the number of nonstop destinations served opens up markets to the state's businesses and residents. As more airlines fly through BWI Marshall Airport, it becomes a more-attractive option in the Mid-Atlantic region and reflects the success of MDOT MAA's marketing and management efforts to make it a more competitive airport.



**TARGET:** 73 nonstop markets served

### WHY DID PERFORMANCE CHANGE?

- ✓ The number of nonstop markets served from BWI Marshall Airport has recovered to 86 destinations with new service from Air Senegal, Play, Icelandair, and Avelo and expanded service from existing carriers Frontier, Spirit, and Southwest
- ✓ Total passenger levels are still below pre-COVID FY 2019 levels and airlines have not rebuilt their route networks fully, particularly international destinations
- ✓ Several international airlines like Air Canada, Condor, and British Airways have resumed some service

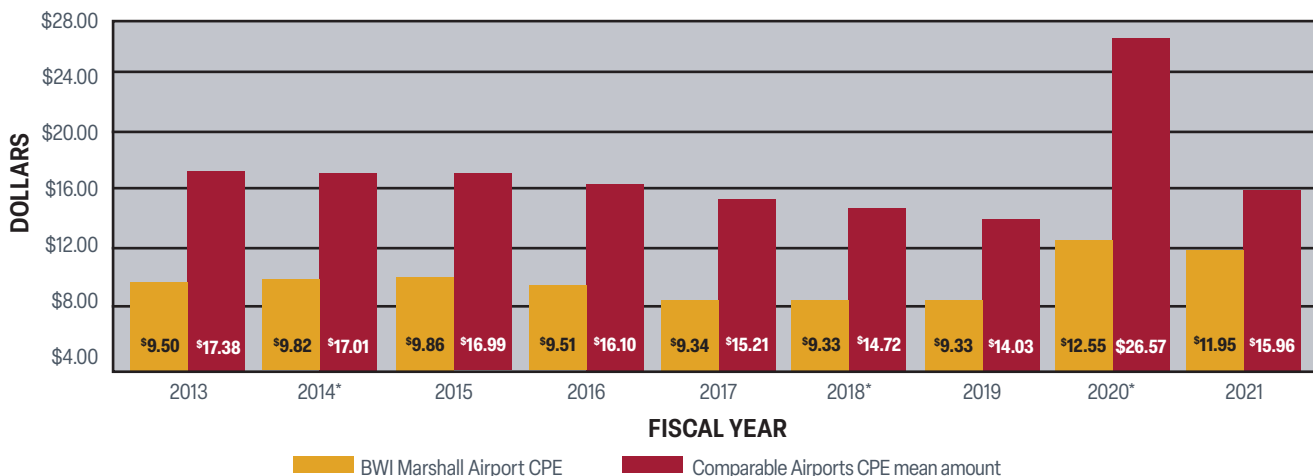
### WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- ✓ BWI Marshall Airport continues efforts to be the most accessible and least complex airport to use in the region

## AIRLINE COST PER ENPLANED PASSENGER (CPE)



Airline operation costs, such as landing fees, fuel flowage fees, and terminal rents, support BWI Marshall Airport's competitiveness in a highly competitive region. BWI Marshall Airport is in a region with three other proximate airports: Ronald Reagan National, Washington Dulles International, and Philadelphia International. The CPE at BWI Marshall Airport continues to be the lowest in the Mid-Atlantic region and is below the mean of comparable airports.



**TARGET:** BWI Marshall Airport CPE below the mean CPE of comparable airports\*\*

\*Data have been revised from previous report.

\*\*Comparable airports are defined as Washington Reagan National, Washington Dulles International, and Philadelphia International.

### WHY DID PERFORMANCE CHANGE?

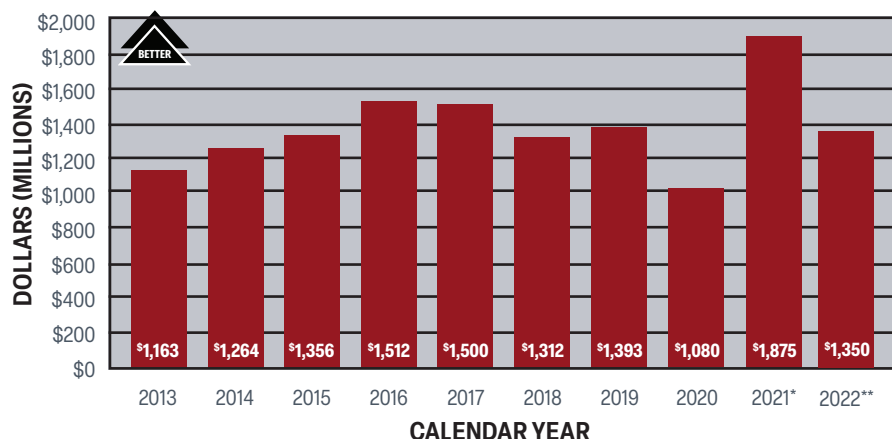
- ✓ Enplanements at BWI Marshall Airport declined in FY 2021 due to the impacts of the COVID pandemic; as a result, airline operating costs were spread across a smaller number of airport enplanements, which increased CPE in FY 2021

## USER COST SAVINGS FOR THE TRAVELING PUBLIC DUE TO INCIDENT MANAGEMENT



Reduced delay on Maryland roadways reflects the tangible effects and benefits of the Coordinated Highways Action Response Team (CHART) incident management program. This in turn saves money for motorists and commercial carriers, such as passenger coach buses and freight trucks.

Heavy volumes of traffic, stop-and-go commuter peaks, and lack of comprehensive information regarding current, real-time conditions on available alternatives contribute to, and compound the effects of, unexpected incidents. With the growth in traffic outpacing any realistic hope of expanding capacity through building new highways, or expanding existing ones, it is imperative to operate the existing system more efficiently through the application of Intelligent Transportation System (ITS) technologies and interagency teamwork.



**TARGET:** \$1,350 (\$1.35 billion) million annually

\*2021 data has been revised from previous report.

\*\*2022 data is preliminary and subject to change.

### WHY DID PERFORMANCE CHANGE?

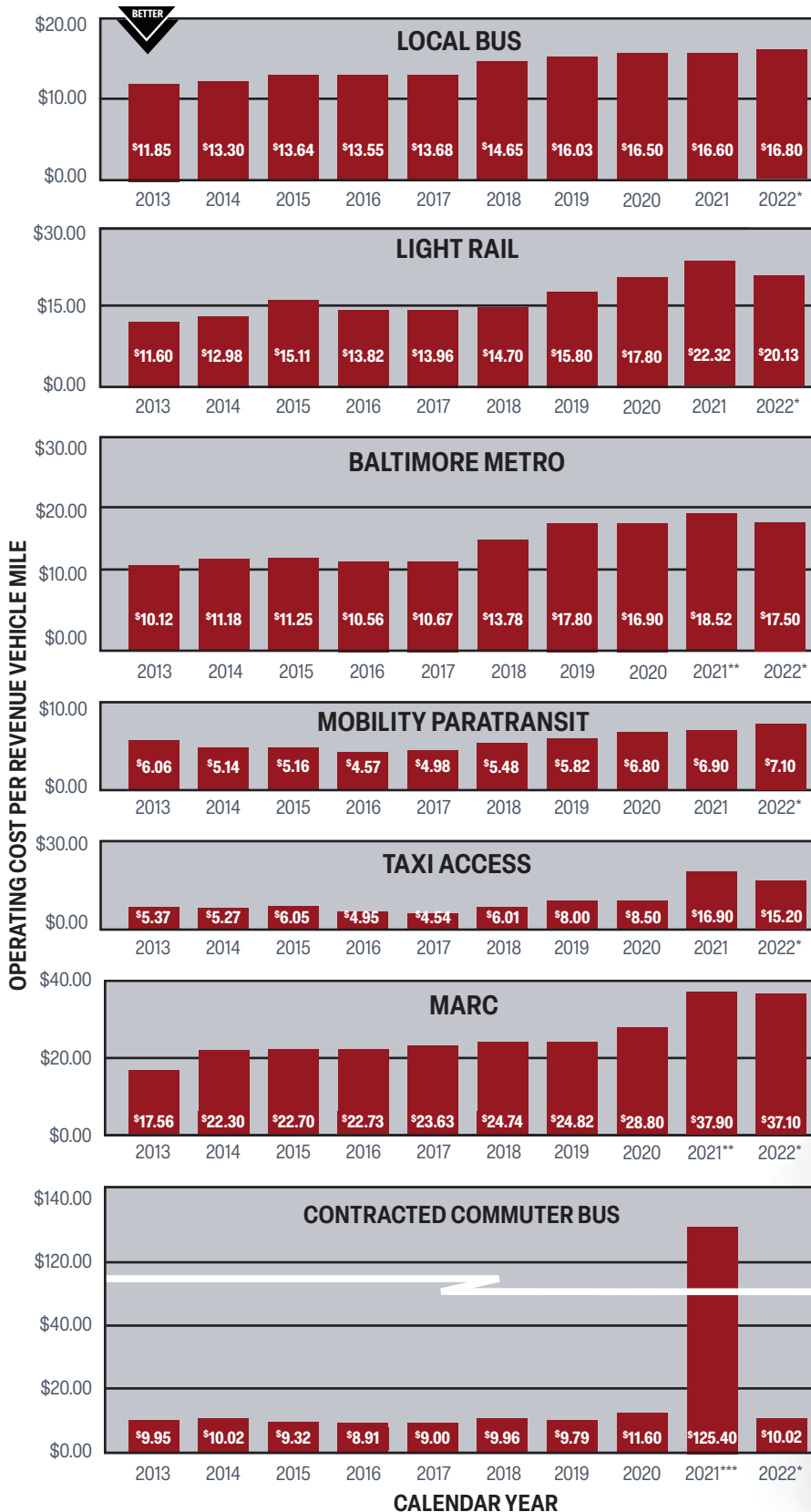
- Incident management saved roadway users \$1.87 billion in CY 2021, an increase in savings from CY 2020 (\$1.08 billion) and handled 128,069 events, including incident responses, assistance with disabled vehicles, and traffic management operations for special and weather-related events
- Completed Traffic Message Channel (TMC) Signal Operations Concept of Operations with a view to integrate Freeway and Arterial Management Concept statewide and initiated ramp metering on I-270
- Partnered with the Office of Traffic and Safety (OTS) as part of the TMC Signal Review Group to geocode all the traffic signals for better integration, searchability, and visibility and also to address peak travel congestion and Eastern Shore Traffic Operations (ESTO)
- MDOT SHA and MDTA employees are still responding to many incidents each year; in 2021, CHART responded to 65,839 incidents and disabled vehicles events on Maryland's roads; in CY 2021, MDTA drivers patrolled more than 1.1 million miles, assisted drivers of 6,015 vehicles and changed 5,933 flat tires; they also removed 6,761 disabled vehicles from roadways

### WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Complete ongoing research initiatives, including Work Zone Data Exchange (WZDX), Mobile Road Weather Information System (MARWIS) integration, etc., aimed at improving safety and mobility
- Facilitate real-time signal timing adjustment to support ESTO during summer months using Advanced Traffic Signal Performance Measures (ATSPM)
- Continue to deploy field ITS assets (Closed Circuit Television Cameras, Traffic Detectors, etc.) to improve traffic monitoring and traveler information
- Continue to collaborate with Office of Highway Development to finalize the scope of Transportation System Management and Operations (TSMO) System 1 and initiate the next steps for deployment



## OPERATING COST PER REVENUE VEHICLE MILE



### WHY DID PERFORMANCE CHANGE?

- In general, operating costs have remained largely static, while ridership has declined or not yet recovered compared to last year
- Ridership has recovered for MARC, Commuter Bus, Light Rail and Metro, so operating costs remain above 2019 pre-pandemic levels
- Bus and paratransit ridership has recovered quicker, so operating costs are closer to 2019 levels

### WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- MDOT MTA continues to adjust and improve route alignments and schedules to best meet passenger demand, while accommodating the evolving fleet and workforce
- MDOT MTA is investing in fleet modernization across all modes to improve operations and passenger experience, including replacement of Metro railcars and the signal systems and obtaining several 60-foot articulated low or no emissions vehicles through a federal grant

\*2022 data are preliminary and subject to change.

\*\*2021 data have been revised from previous report.

\*\*\*The spike in this metric is related to the commuter bus service changes resulting in ridership impacts from the pandemic. This measure will normalize as service starts to resume in future years.

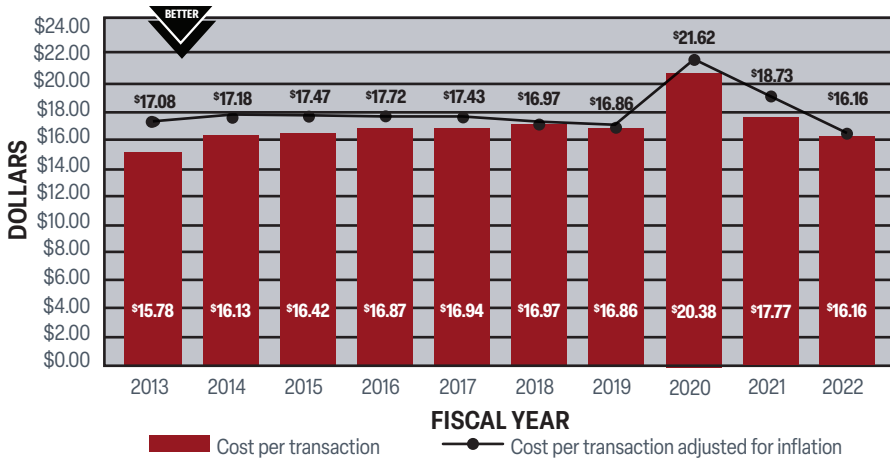




## MDOT MVA COST PER TRANSACTION\*



This measure indicates whether MDOT MVA's business practices and programs are cost effective. Cost effectiveness is realized through improved technology and operational practices.



**TARGET:** Short-Term \$17.26 (FY 2023); Long-Term: \$17.31 (FY 2024)

\*Includes all transactions (e.g. licensing, registration, titling).

### WHY DID PERFORMANCE CHANGE?

- ✓ Average cost per transaction decreased from \$17.77 to \$16.16 this fiscal year
- ✓ As MDOT MVA branches have rebounded from the COVID-19 disruptions, the number of total transactions also rebounded, lowering the cost per transaction

### WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- ✓ MDOT MVA completed its system modernization project, Customer Connect, in December 2021; this fully integrated system has provided MDOT MVA the ability to capture more precise performance measures to better serve its customers

### OBJECTIVE: Ensure a consistent revenue stream and ample financing opportunities

MDOT has used a variety of tactics to finance important infrastructure projects and ensure they are completed at reduced costs. The Howard Street Tunnel Expansion Project is a good example. Double-stack capability from Maryland's Port of Baltimore has long been a priority for MDOT MPA. The primary obstacle to achieving that goal has been CSX's Howard Street Tunnel, a 126-year-old, 1.7-mile-long railroad tunnel through the heart of Baltimore City that is approximately 18 inches too short to accommodate double-stack intermodal trains. For years it was thought that improvements to the existing tunnel would cost billions of dollars and be highly disruptive to the surrounding communities. Using advances in engineering technology, MDOT MPA and CSX developed a solution that can be delivered at a fraction of the original cost estimate with limited impacts to the public. Construction on this project began in November 2021.

Another example is the Nice/Middleton Bridge over the Potomac River. Construction concluded on the MDTA's \$463 million project to build a new US 301 bridge to replace the 81-year-old bridge. In March 2022,

the U.S. Department of Transportation (U.S. DOT) approved a \$200 million federal Transportation Infrastructure Finance and Innovation Act (TIFIA) loan to finance part of the nearly \$463 million replacement project. The new, wider crossing opened to traffic in October 2022 and doubles the vehicle capacity with four 12-foot-wide lanes, replacing the original bridge's two 11-foot-wide lanes. It also eliminates lane-shifting safety issues with the removal of the toll booths by replacing them with all-electronic (cashless) tolling and enables tall ships to pass beneath its 135-foot clearance.

One final example is the I-695 TSMO project to reduce congestion and delay, which is utilizing the DB project delivery method. This method reduces time and money by using only one contractor that encourages innovation and collaboration. The project already has been awarded to a DB team who received a Notice to Proceed. Once complete, the project will relieve congestion on six of the top 15 most congested roadway segments in Maryland.

