Goal Maintain a High Standard and Modernize Maryland's Multimodal Transportation System

Preserve, maintain, and modernize the state's existing transportation infrastructure and assets

OBJECTIVES:

▟ Preserve and maintain state-owned or funded roadways, bridges, public transit, rail, bicycle and pedestrian facilities, ports, airports, and other facilities in a state of good repair

▟ Strategically modernize infrastructure through new and innovative technology, enhanced partnerships, design standards, and practices to facilitate the movement of people and goods

▟ Use asset management to optimize public investment and ensure the sustainability of transportation infrastructure

Keeping a safe and well-maintained transportation system remains critical for MDOT. Without proper maintenance and repair, poorly maintained roads and bridges can lead to more incidents and delays, thus impacting safety as well as economic activity. In FY 2022, MDOT SHA recorded 85% of its network in an overall preferred maintenance condition. MDOT recorded 26 poor-rated MDOT SHA bridges in March 2022—the lowest level since tracking began and one of the lowest percentages of any state transportation agency in the nation. Of the 26 poor-rated bridges, eight are currently in the construction phase, and the remaining are in the design phase with construction funding either in place or pending to address their conditions.

MDOT is making great progress on its commitment to implement technology solutions that facilitate movement. Maryland is the second state to offer a digital version of a driver license or identification card for one's phone, which can be used to get through security checkpoints at two of the Baltimore–Washington region's airports. MDOT MVA has expanded its online services through the Customer Connect system and now is serving more customers online than ever before while continuing to operate under an appointment-based model. As of November 2022, over four million Marylanders are REAL ID ready. All-electronic (cashless) tolling has been provided on roadways across the state to reduce idling and provide better fuel efficiency.

In November 2021, MDOT launched the expansion of the incenTrip™ application statewide as a congestion mitigation effort. The purpose of incenTrip is to reduce traffic congestion in the weekday peak periods by encouraging Maryland commuters and employers to increase the use of public transportation, ridesharing (carpool and vanpool), walking, biking, teleworking, and alternative work schedules.

MDOT continues to be recognized nationally for its efforts to maintain infrastructure quality and safety. MDOT earned a Maryland Quality Initiative (MdQI) Modal Award for Projects Over $5 Million for both the

MDOT SHA's $89.3 million I-81 improvement project, which included widening and superstructure replacement of the I-81 dual bridges over the Potomac River in Washington County, Maryland, and Berkeley County, West Virginia, and MDTA's $188.6 million replacement of the steel bridge on I-895 near the Baltimore Harbor Tunnel. Another $15 million in funding will be funneled to MD 90 to help relieve Maryland's summer beach traffic. MDOT also has committed $28 million in federal infrastructure funding to launch a Tier 2 Study of a new Chesapeake Bay crossing and to examine traffic-calming measures in the 22-mile stretch between the Severn River Bridge and the US 50/301 split.

In November 2022, MDOT completed the $93 million reconstruction of I-270 and MD 85 interchange in Frederick County, replacing two poorly rated bridges.
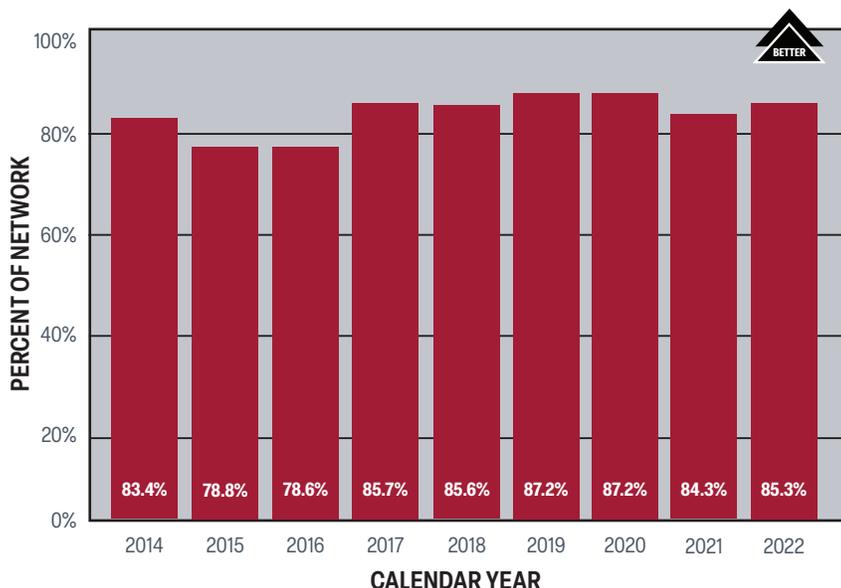
OBJECTIVE: Preserve and maintain state-owned or funded roadways, bridges, public transit, rail, bicycle and pedestrian facilities, ports, airports, and other facilities in a state of good repair

PERCENTAGE OF THE MDOT SHA NETWORK IN OVERALL PREFERRED MAINTENANCE CONDITION

ON TARGET

The overall condition of the network is indicative of the positive effect that asset management strategies have on existing highways. Effective asset management strategies ensure continued usability, quality, and safety on Maryland's roadways.

PERCENT OF NETWORK

Year	Value
2014	83.4%
2015	78.8%
2016	78.6%
2017	85.7%
2018	85.6%
2019	87.2%
2020	87.2%
2021	84.3%
2022	85.3%

CALENDAR YEAR

TARGET: 85% Annually

WHY DID PERFORMANCE CHANGE?

▮ MDOT SHA was able to supplement state workforce with contractors to perform work

▮ For a fifth straight year, the winter weather was relatively light or average, which minimized damage to assets
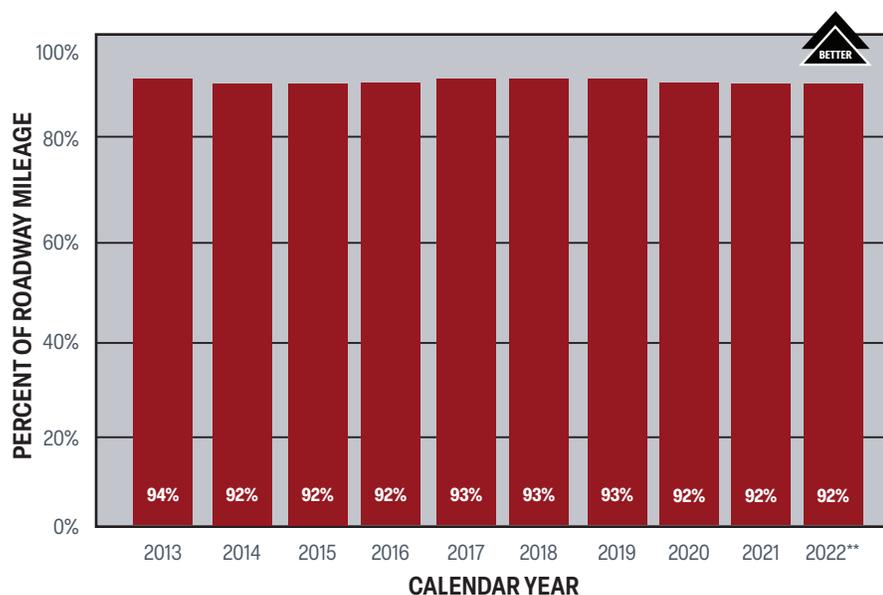
WHAT ARE FUTURE PERFORMANCE STRATEGIES?

▮ MDOT SHA will continue to seek environmental permits to perform much needed drainage work

▮ MDOT SHA is continuing to work with the Office of Traffic and Safety (OOTS) to identify and replace critical signs functioning below the desired level of service

▮ MDOT SHA is working to obtain and direct supplemental funding and continue to seek additional contractors to perform much needed maintenance to roadside vegetation

▮ MDOT SHA is hosting one-day hiring events in an attempt to develop a candidate pool for field maintenance personnel to minimize the impact of employee turnover

▮ MDOT SHA will continue to use asset management principles to determine the most appropriate repair/replacement strategies to preserve assets in a state of good repair and make the best use of its available resources

OVERALL ACCEPTABLE PAVEMENT CONDITION*

ON TARGET

Overall pavement condition is based on remaining service life, which is measured on a scale of 0 to 50 years to describe pavement condition. Ride quality, functional cracking, structural cracking, and rutting data are collected utilizing Automated Road Analyzer (ARAN) vehicles; friction data is collected using skid trucks. MDOT conducts yearly roadway inspections to ensure safety, efficiency, mobility, and accessibility in the movement of people and goods.

PERCENT OF ROADWAY MILEAGE

Year	Value
2013	94%
2014	92%
2015	92%
2016	92%
2017	93%
2018	93%
2019	93%
2020	92%
2021	92%
2022**	92%

CALENDAR YEAR

TARGET: 90% Annually

*All data have been revised from previous report.

**2022 data is preliminary and subject to change.

WHY DID PERFORMANCE CHANGE?

▮ MDOT SHA resurfaced approximately 4.7% of its pavement network in 2021; preventative maintenance covered an additional 10.4% of the network

▮ Improvements to the roadway network in 2021 were higher than 2020; it is anticipated that the "percent acceptable" conditions will generally remain steady over the next 1-2 years

▮ The impact of cracking (a significant cost driver) has remained steady; the biggest driver in the percent acceptable reduction continues to be friction

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

▮ MDOT SHA will continue to focus on improving roadways with deficient cracking and continue the increased use of pavement preservation treatments, where appropriate, to extend the service of MDOT SHA roadways at the lowest possible cost

▮ To address friction improvement needs across its roadway network proactively, MDOT SHA is planning to advertise two statewide friction contracts for high friction surface treatment, surface abrasion, and diamond grinding

NUMBER OF BRIDGES AND PERCENT THAT ARE IN POOR CONDITION

TARGET ACHIEVED

The poor condition rating (also previously referred to as structurally deficient) is an indicator for engineers to initiate the rehabilitation or replacement process and is used when prioritizing and recommending system preservation funding. A bridge is not considered unsafe if it is poor rated; unsafe bridges are closed. The rating applies to the three structural components of the bridge (deck, superstructure, and substructure), and is scaled from 0 (closed to traffic) to 9 (relatively new) per the National Bridge Inventory (NBI) requirements. All bridges are inspected at least once every two years. If any of these elements are rated as a four or less, the bridge is considered to be in poor condition per federal standards. Bridge repair projects remain high priorities due to the inconvenience and traffic re-rerouting problems that can occur when bridges close.

CALENDAR YEAR	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
Number of MDTA Bridges in Poor Condition	1	1	1	1	1	1	1	1	0	0
Number of MDOT SHA Bridges in Poor Condition	87	81	69	69	67	62	52	36	29	26
Total Number of Bridges in Poor Condition	88	82	70	70	68	63	53	37	29	26

*2022 data are preliminary and subject to change.

WHY DID PERFORMANCE CHANGE?

⬛ MDOT SHA recorded 26 poor rated bridges during their annual condition submission to the Federal Highway Administration (FHWA) in March 2022; this reduction can be attributed to the efficient use of federal funds for current bridge replacement projects and the successful bridge rehabilitation and preservation program; MDOT SHA continues to develop plans for bridges with a poor rating that cannot be repaired under the preservation program

⬛ MDOT SHA continued the bridge rehabilitation and preservation program in which on-call construction crews, working full-time year-round, perform minor rehabilitation to address bridges rated as poor or fair to bring them into a state of good repair and minimize the number of bridges that would deteriorate to a poor rating without rehabilitation; currently there are 15 active on-call construction crews, which is an increase from nine crews the previous year but a reduction from 30 crews prior to 2020
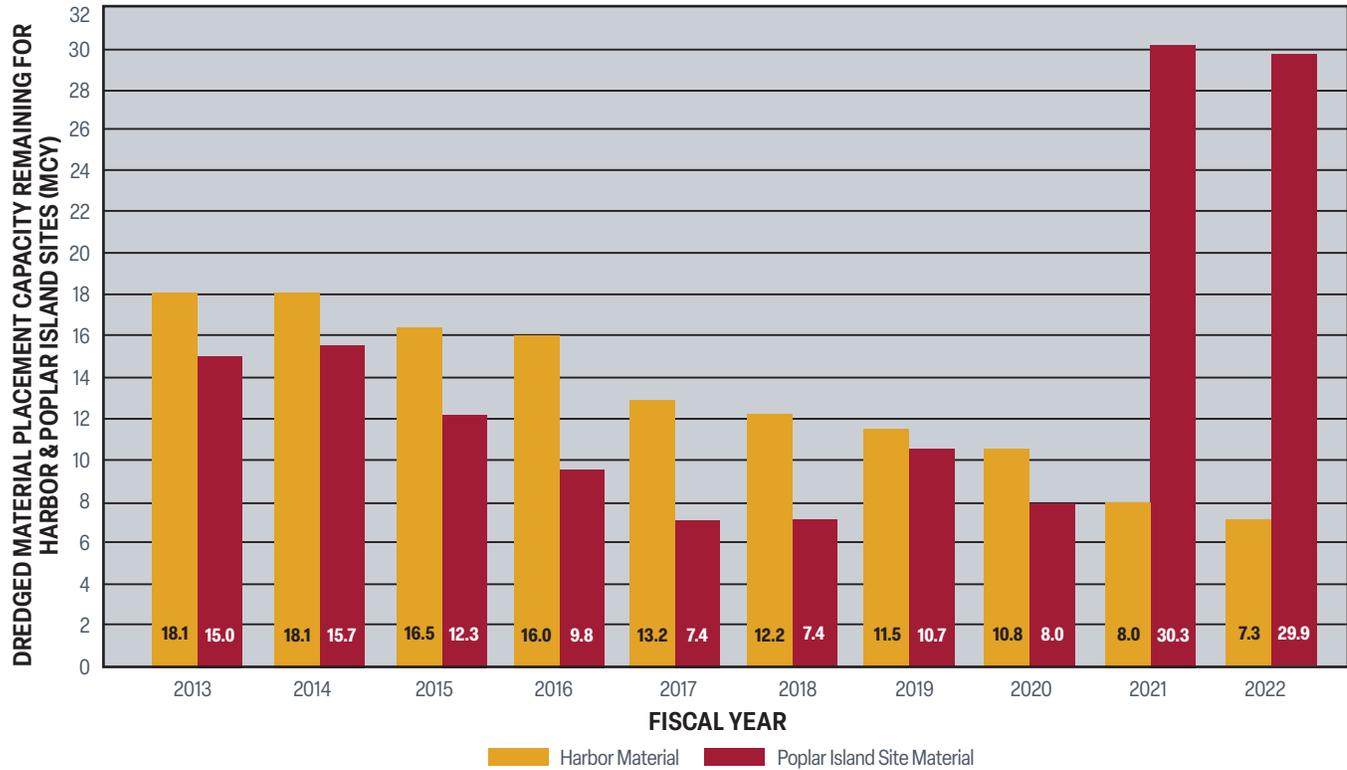
WHAT ARE FUTURE PERFORMANCE STRATEGIES?

⬛ MDOT SHA is continuing with FHWA Special Experimental Project No. 14 (SEP-14) Contracts that use the Indefinite Delivery and Indefinite Quantity (ID/IQ) scopes of work to support the bridge rehabilitation program leaving state funds to be available for emergencies

⬛ MDOT SHA continued to develop plans for poor rated bridges that cannot be repaired under the preservation program

⬛ MDOT SHA is working to develop plans for major rehabilitation or replacement on several fair rated bridges that are on high volume roadways and have the potential to become poor rated in the near future, this is a proactive approach to have projects ready so that mobility is not impacted by structural condition

⬛ MDOT SHA and MDTA have developed criticality framework to evaluate bridges on a risk-based approach combining criticality (consequence of failure) and condition (good, fair, poor), this framework will be reviewed and refined to be included in future asset management programming

⬛ MDOT SHA has begun the use of the National Bridge Element (NBE) data collected during inspections in combination with the NBI data to verify and target bridges to be evaluated for inclusion in the replacement or rehabilitation programs, the NBE data provides more detailed element level information

⬛ Detailed Asset Lifecycle Management Plans are being developed for MDOT SHA and MDTA bridges to document the process of keeping structural assets in a state of good repair

DREDGED MATERIAL PLACEMENT CAPACITY REMAINING FOR HARBOR SITES AND POPLAR ISLAND

ON TARGET

MDOT MPA is responsible for ensuring the Port remains safe and accessible and maintains shipping channels by obtaining and managing dredged material placement sites.

Chart: DREDGED MATERIAL PLACEMENT CAPACITY REMAINING FOR HARBOR & POPLAR ISLAND SITES (MCY) by FISCAL YEAR

Fiscal Year	Harbor Material	Poplar Island Site Material
2013	18.1	15.0
2014	18.1	15.7
2015	16.5	12.3
2016	16.0	9.8
2017	13.2	7.4
2018	12.2	7.4
2019	11.5	10.7
2020	10.8	8.0
2021	8.0	30.3
2022	7.3	29.9

HARBOR TARGET: Maintain a rolling 20-year plan for adequate dredged material placement capacity

POPLAR ISLAND TARGET: Maintain a rolling 20-year plan for adequate dredged material placement capacity

WHY DID PERFORMANCE CHANGE?

▰ In January 2021, MDOT MPA and the U.S. Army Corps of Engineers completed the Poplar Island Ecosystem Restoration Project lateral expansion; this provides 575 additional acres of dredged material placement, adding storage capacity of 28 million cubic yards (mcy) of material

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

▰ The U.S. Army Corps of Engineers' Mid-Chesapeake Bay Islands Restoration Project will use dredged sediment from Port shipping channels to restore James and Barren islands off Dorchester County
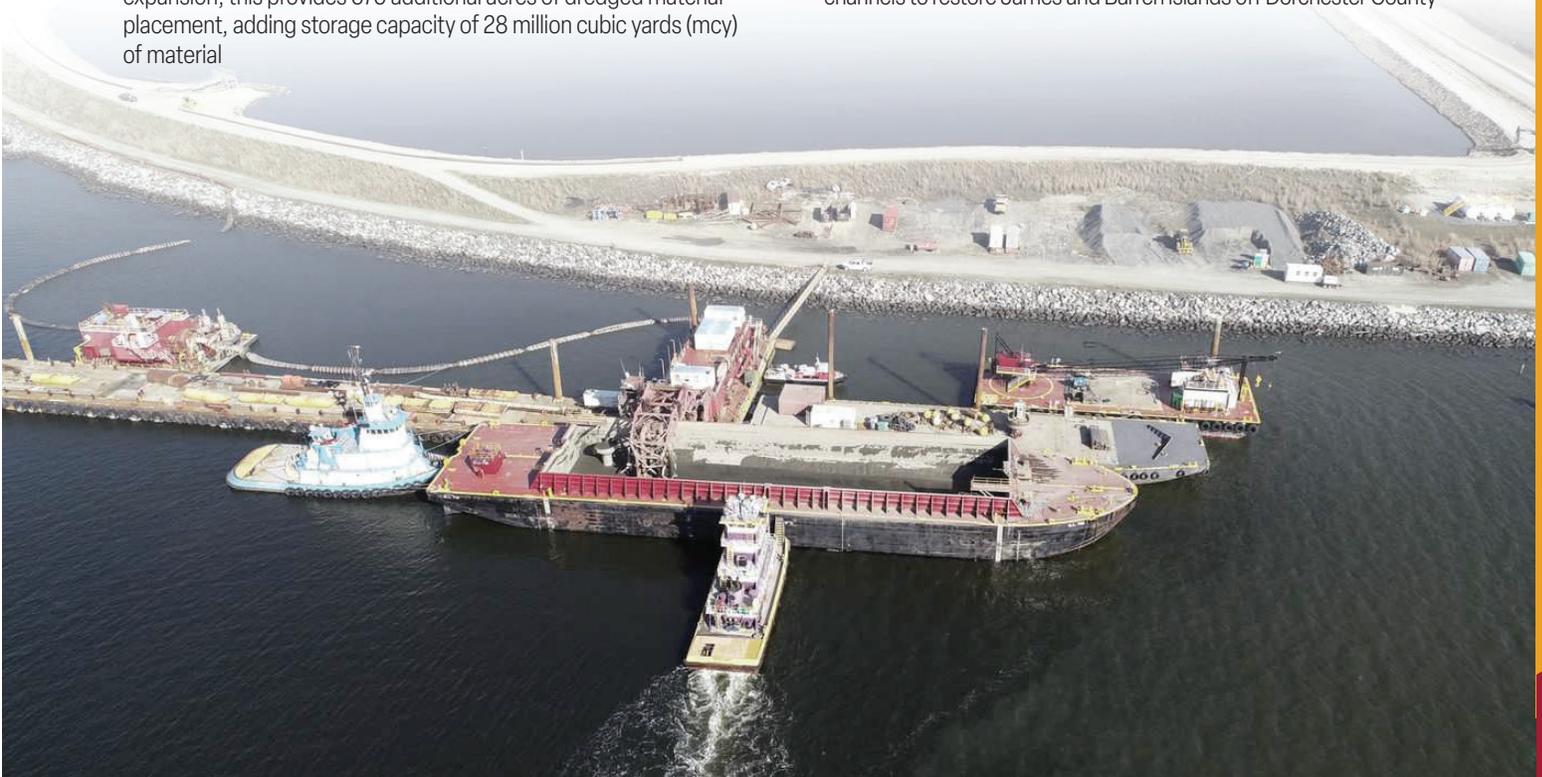
TRANSIT ROLLING STOCK WITHIN USEFUL LIFE BENCHMARK

ON TARGET

Useful life is a metric that gauges the condition of transit vehicles. Each asset type has a unique useful life. An asset reaching its useful life will need to be replaced or repaired. This measurement tells agencies when to expect repairs and replacement.

TRANSIT VEHICLES	2022 PERCENT OF VEHICLE STOCK WITHIN USEFUL LIFE	TARGETS
Baltimore Metro	0%	**0**%
MARC	88%	**88**%
Light Rail	100%	**100**%
Paratransit	59%	**64**%
Local Bus	89%	**96**%

*Targets have been updated from previous report.

**Baltimore Metro rolling stock is 0 for FY 2022 because all vehicle are past and useful life. New cars will not be inservice until FY 2024, such that target for FY 2023 is 0.

WHY DID PERFORMANCE CHANGE?

▰ MDOT MTA prioritizes reinvestment in safety and service critical assets and focuses 98% of the capital program on renewal; however, year-to-year funding for transit can be uncertain and procurement timelines for new vehicles can be extended by vendors, which impact MDOT MTA's ability to meet near-term targets

▰ In FY 2022 the primary challenge was delayed vehicle deliveries, as noted above, due to the COVID pandemic and subsequent supply chain issues

▰ MDOT MTA has prioritized the replacement of revenue vehicles over non-revenue vehicles, as a result of the target setting process and funding constraints

OBJECTIVE: Strategically modernize infrastructure through new and innovative technology, enhanced partnerships, design standards, and practices to facilitate the movement of people and goods

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

▰ As additional federal funding for transit is anticipated in FY 2023, MDOT MTA will prioritize SGR reinvestment to meet vehicle replacement schedules

▰ Supply chain impacts and inflation are expected to continue to impact the capital program in FY 2023, potentially delaying delivery of vehicles and decreasing the purchasing power of MDOT MTA's funding

▰ Continued staffing difficulties limit the amount of work that can be done on a yearly basis to improve the conditions of aging facilities

▰ As physical inspections of facilities are completed during the next several years, the baseline for understanding facility condition will shift and performance numbers may continue to change, physical condition will provide more accurate information for prioritizing investments and addressing maintenance

AVERAGE TRUCK TURN TIME AT SEAGIRT MARINE TERMINAL

TARGET ACHIEVED

Keeping Maryland's Port of Baltimore economically viable includes constant dredging, improvements to the infrastructure that connects the Port to businesses and logistics hubs across the country, and improvements within the Port to ensure seamless movement of goods to and from ships.

Measuring truck turnaround times at Seagirt Marine Terminal is important for Port officials to have so they can measure the internal efficiency of the Port. The less time it takes a truck to turn around, the less money it costs to move those goods. In 2022, the average truck turnaround time was 60 minutes, down significantly from 73 minutes in 2020, but only slightly quicker than the average of 61 minutes in 2021.

WHY DID PERFORMANCE CHANGE?

▰ Turn times fell as improvements, such as weigh-in motion scales, have helped speed the processing of trucks entering Seagirt Marine Terminal

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

▰ MDOT MPA and Ports America Chesapeake (PAC) will continue to apply for additional federal funding that will allow PAC to offset part of the costs for other capital projects that will help improve efficiencies on Seagirt Marine Terminal
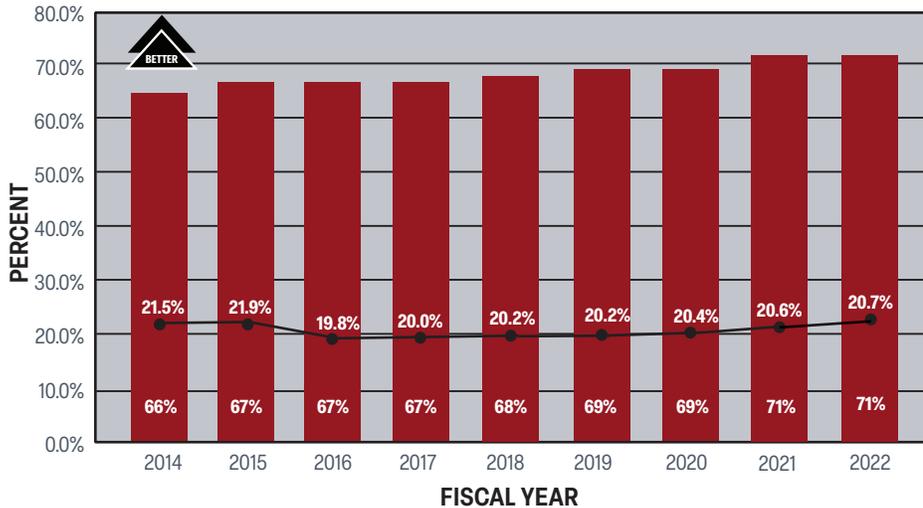

BETTER

CALENDAR YEAR	MINUTES
2018	89
2019	86
2020	73
2021	61
2022*	60
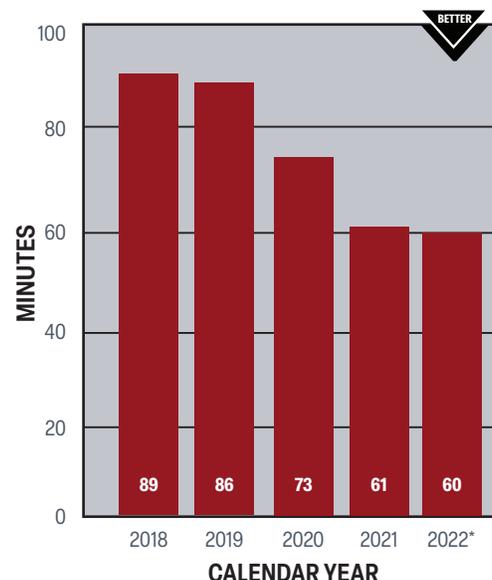
TARGET: 60 minutes

*2022 data is preliminary and subject to change.

PERCENTAGE OF STATE-OWNED ROADWAY DIRECTIONAL MILES WITHIN URBAN AREAS THAT HAVE SIDEWALKS AND PERCENT OF SIDEWALKS THAT MEET AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE

MAKING PROGRESS

Sidewalks facilitate pedestrian movement and general accessibility. ADA-compliant sidewalks expand accessibility to all and are federally required.

BETTER

FISCAL YEAR	ADA compliance	Sidewalks
2014	66%	21.5%
2015	67%	21.9%
2016	67%	19.8%
2017	67%	20.0%
2018	68%	20.2%
2019	69%	20.2%
2020	69%	20.4%
2021	71%	20.6%
2022	71%	20.7%

■ Percentage of sidewalks that meet ADA compliance

—●— Percentage of state-owned roadway directional miles within urban areas that have sidewalks

TARGET: Increase sidewalks in urban areas by 0.5% and ADA compliance by 2% per year

WHY DID PERFORMANCE CHANGE?

⁄ MDOT invested $2.2 million in FY 2022 to design and construct new sidewalks, including the construction of new directional miles of sidewalk in MD 424 in Anne Arundel County and design to address the sidewalk gap in US 1 between Crestmount Road to Cedar Avenue

⁄ MDOT invested $3.0 million in FY 2022 to design and construct sidewalk improvements to address ADA accessibility, including the reconstruction of sidewalks for ADA compliance in several locations in Baltimore, Carroll, Frederick, Harford, Prince George's, Queen Anne's, Talbot, and Worcester counties

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

⁄ MDOT SHA is partnering closely with other partners and stakeholders to leverage federal funding sources to facilitate further projects; MDOT SHA also will evaluate further mechanisms to address gaps in priority corridors proactively

⁄ Continue the implementation of the 2021-2025 Strategic Highway Safety Plan (SHSP), specifically the infrastructure emphasis area that includes this strategy: improve roadway environments related to pedestrians and bicyclists by influencing the implementation of system-wide countermeasures, engineering treatments, and land-use planning

OBJECTIVE: Use asset management to optimize public investment and ensure the sustainability of transportation infrastructure

MDOT is committed to implementing the Strategic Asset Management Plan (SAMP), which was developed in coordination with MDOT's Asset Management working group. The Department Asset Management Policy provides policy direction to MDOT TSO, the Transportation Business Units (TBUs), and MDTA as they implement the plan to help Maryland understand the condition of its assets and be able to allocate funding strategically for maintenance and repairs of transportation infrastructure. MDOT has 10 principles for asset management that guide the department's plan including data-driven decision making, accessible and integrated information systems to facilitate information sharing, and using resources wisely. Asset management is a collaborative effort and requires coordination among various TBUs and MDTA. Assets in the transportations system include pavement on roadways, administrative and other types of buildings, passenger and freight rail, roads and tunnels, buses, signals, and lighting.

Goal Improve the Quality and Efficiency of the Transportation System to Enhance the Customer Experience

Increase the use of technologies and operational improvements to enhance transportation services and communication to satisfy our customers

OBJECTIVES:

- Increase the efficiency of transportation services through partnerships, advanced technologies, and operational enhancements to improve service delivery methods
- Enhance customer satisfaction with transportation services across all modes of transportation
- Minimize travel delays and improve predictability of travel times on Maryland's transportation system
- Apply enhanced technologies to improve communications with the transportation system users and to relay real-time travel information

Millions of Maryland residents and visitors drive a vehicle, take public transit, walk, bike, and use Maryland's transportation system and services to get where they need to go. Meeting the needs of all customers is vital and MDOT strives to provide efficient, quality service. To enhance customer experience, MDOT MVA recently completed its information technology (IT) modernization project, known as Customer Connect, which expands information access and allows customers to conduct more online transactions than ever before. Customer Connect also provides customers and employees with a complete view of the customer's status and history with MDOT MVA by linking their driver and vehicle accounts. Since December 2021, more than half a million Marylanders have created a myMVA eServices account. With a myMVA account, customers can conveniently and efficiently manage their MDOT MVA business 24 hours a day, seven days a week. The completion of Customer Connect helped MDOT MVA achieve a near 10-minute reduction in wait time in the fourth quarter of FY 2022; the current average is 11 minutes, compared to 20 minutes in FY 2021. MDOT MVA also has partnered with other Maryland agencies to become a "one-stop-shop" for many services. The Department of Natural Resources, MDTA, and the Department of Veteran Affairs all have opened customer service centers within multiple MDOT MVA branches across the state and offer their products on MDOT MVA's eServices store and kiosks.

MDOT MTA's program Fast Forward: Customer Experience Enhancement Program, a $43 million initiative improving transit reliability, travel times, and customer safety and access, is expected to be completed by the end of 2023. This program will design and construct additional dedicated bus lanes, create new and enhanced transit hubs, add more bus shelters, make Americans With Disabilities Act (ADA) and pedestrian

safety improvements at and near bus stops, improve real-time signs, and enhance wayfinding at Light Rail stations by the end of 2024. MDOT MTA also has improved accessibility to real-time information for transit riders. Customers now can view live train locations and arrival predictions on the Transit App and Google Maps for all transit modes. This sets the stage for the planned addition of arrival predictions on digital signage inside Metro stations in 2023. Additionally, real-time bus crowding information has been added to the Transit App for all LocalLink, CityLink, Light Rail, Express BusLink, and MARC services to give riders transparency and more choices in the trip-planning process.

MDTA continues to improve the customer experience for all-electronic (cashless) tolling. Since cashless tolling was made permanent statewide in August 2020, allowing drivers to pay tolls via *E-ZPass®*, Pay-By-Plate, or Video Tolling, MDTA has converted toll plazas on I-95 and at the Hatem, Key, Nice/Middleton, and Bay bridges to highway-speed, all-electronic tolling.
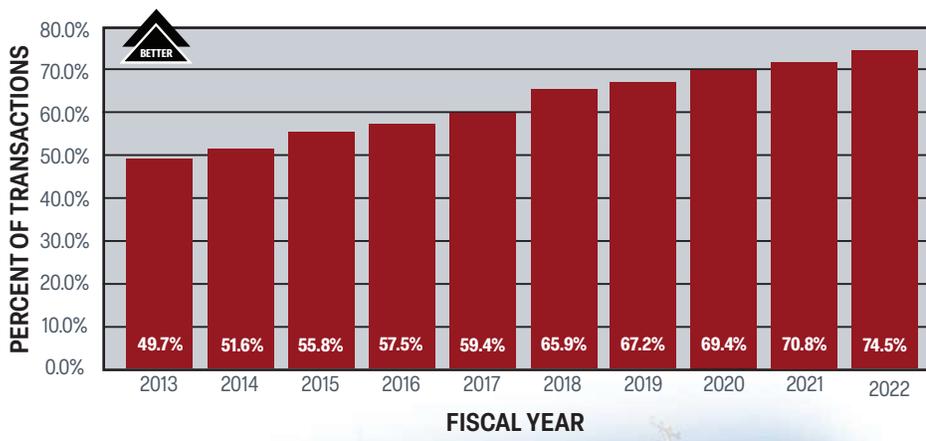
MDOT MAA strives to be a "good neighbor" within the community and has been participating in the Federal Aviation Administration's (FAA) voluntary CFR Part 150 Airport Noise Compatibility Program since the mid-1980s. Under this program, the sound insulation of eligible residences and schools intends to mitigate aircraft noise impacts to within federally accepted levels which in turn will improve the quality of life for citizens and help preserve the long-term operational sustainability of the airport. To date, more than 700 homeowners and four schools have participated in the BWI Marshall Airport noise program. MDOT MAA is working on the next phase of the program, which includes sound insulation for up to 136 single-family homes and 17 multifamily structures (comprised of 344 units).

OBJECTIVE: Increase the efficiency of transportation services through partnerships, advanced technologies, and operational enhancements to improve service delivery methods.

MDOT MVA ALTERNATIVE SERVICE DELIVERY (ASD) TRANSACTIONS AS PERCENT OF TOTAL TRANSACTIONS

ON TARGET

Alternative services allow MDOT MVA to operate more efficiently by providing reliable and convenient service delivery to customers without requiring a transaction in-person. These services include web transactions, self-serve kiosks, mail-in options, and others. To be successful, alternative services must be adopted in conjunction with the development of new IT systems and customer behavior changes.

BETTER

PERCENT OF TRANSACTIONS

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	49.7%	51.6%	55.8%	57.5%	59.4%	65.9%	67.2%	69.4%	70.8%	74.5%

FISCAL YEAR

TARGET: Short-Term: 77.4% (FY 2023); Long-Term: 80.2% (FY 2024)

WHY DID PERFORMANCE CHANGE?

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

/ The completion of Customer Connect has allowed even more customers to carry out a transaction by a method other than coming in person to an MDOT MVA branch location
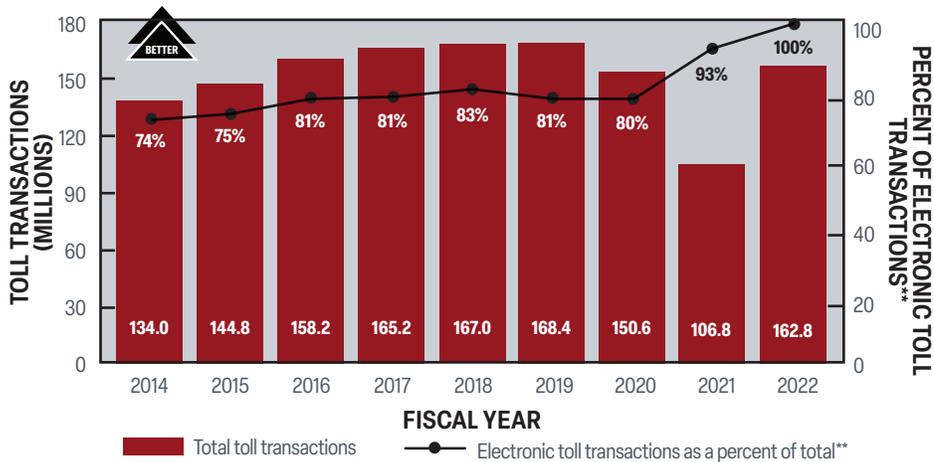
WHAT ARE FUTURE PERFORMANCE STRATEGIES?

/ MDOT MVA will promote the use of ASD systems, including myMVA—the online eServices delivery system, standalone kiosks, and expand the menu of online service options to complete transactions, submit documentation, and obtain account information on demand

PERCENT OF TOLL TRANSACTIONS COLLECTED ELECTRONICALLY*

TARGET ACHIEVED

Electronic toll collection (ETC) systems expedite the toll collection process, reduce delays at toll plazas, decrease congestion and emissions, and are available at all toll facilities across the state.

BETTER

TOLL TRANSACTIONS (MILLIONS)

PERCENT OF ELECTRONIC TOLL TRANSACTIONS**

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Electronic toll transactions as a percent of total**	74%	75%	81%	81%	83%	81%	80%	93%	100%
Total toll transactions	134.0	144.8	158.2	165.2	167.0	168.4	150.6	106.8	162.8

FISCAL YEAR

■ Total toll transactions   ●— Electronic toll transactions as a percent of total**

TARGET: Short-Term: 82%, Long-Term: 85%

*Toll collections are paid as cash until March 2020 or ETC. ETC includes transponder, I-tolls, Pay-by-Plate, and video tolls.

**Data has been revised from previous report.

WHY DID PERFORMANCE CHANGE?

/ MDTA launched *DriveEzMD*, moving completely to all-electronic tolling; this included a new website, web chat, expanded customer call center, new toll payment choices, text notifications and more; as Maryland's new home for all things tolling, *DriveEzMD* encompasses E-ZPass®, Pay-By-Plate option, and video tolling

/ Difficulties arose during the pandemic, causing delays in receiving all of the transactional data

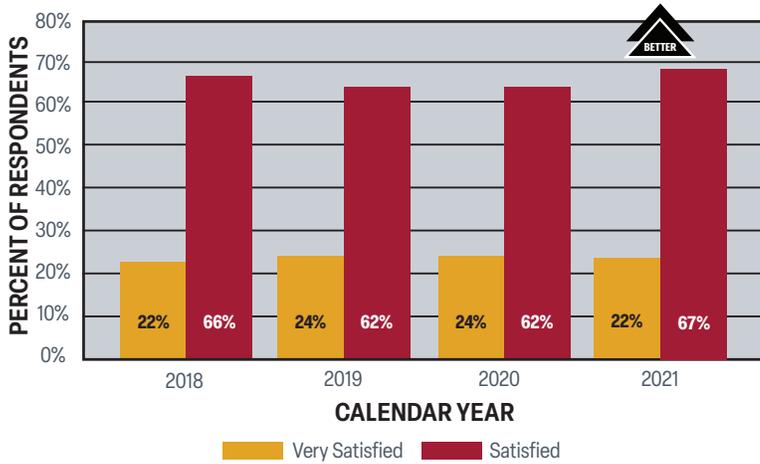### WHAT ARE FUTURE PERFORMANCE STRATEGIES?

/ Construction continues on the I-95 Express Toll Lanes^{SM} (ETL) Northbound Extension to relieve traffic congestion and improvements on overall travel along the I-95 corridor into Harford County and MD 24

/ Currently, research is being conducted for new strategies to assist with collecting unpaid tolls and civil penalties from out-of-state drivers in the coming years

OVERALL SATISFACTION WITH MDOT

ON TARGET

Customer satisfaction surveys provide MDOT with direct feedback from customers to help MDOT measure its success in providing exceptional customer service. With these surveys, MDOT and its Transportation Business Units (TBUs) can identify their major successes and weaknesses and develop new investment prioritizations to maintain and grow their customer bases.

PERCENT OF RESPONDENTS / **CALENDAR YEAR**

BETTER

Year	Very Satisfied	Satisfied
2018	22%	66%
2019	24%	62%
2020	24%	62%
2021	22%	67%

Legend: ▮ Very Satisfied ▮ Satisfied

*The survey data reported are through 2021; survey data reporting is delayed by a year due to the survey for the current year not being closed/completed at the time of publishing. 2022 survey data will be published in the 2024 Attainment Report.

WHY DID PERFORMANCE CHANGE?

▰ MDOT MVA completed Customer Connect in 2021, which has allowed customers to conduct more transactions online than ever before

▰ MDOT MVA also has expanded online services through MyMVA, a service that allows customers to look up notices, letters, and receipts related to their vehicle, check their REAL ID status, and view any MDOT MVA correspondence related to their vehicle since July 2020 without stepping foot into a branch office

▰ MDOT SHA handled 128,069 events, including incident responses, assistance with disabled vehicles, and traffic management operations for special and weather-related events

▰ MDOT SHA also commenced work on the I-695 Transportation System Management and Operations (TSMO) project (project limits are from I-70 to MD 43) to reduce congestion along the west and north sides of the Baltimore Beltway
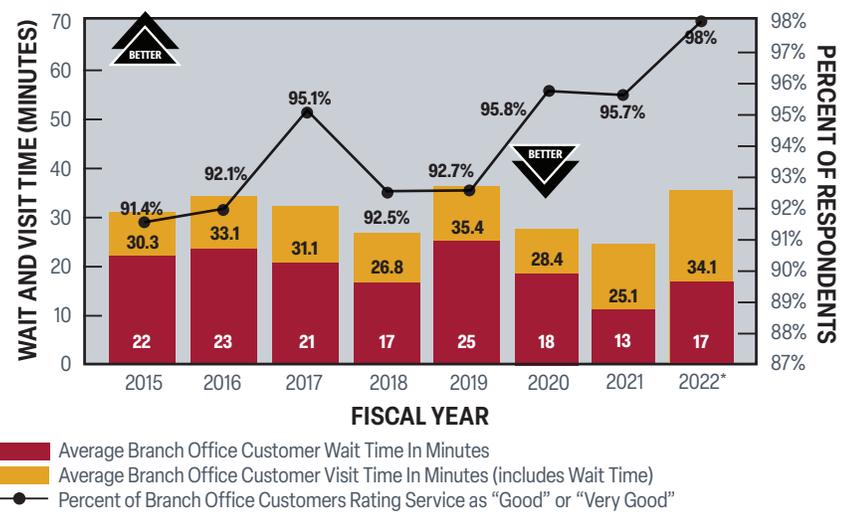
WHAT ARE FUTURE PERFORMANCE STRATEGIES?

▰ MDOT MAA continues to focus on improving the customer travel experience and route offerings through strategic investment in airport facilities, expanding and modernizing amenities and services, and developing a dedicated and efficient workforce all to ensure that BWI Marshall Airport remains the accessible and hassle-free airport of choice for the region

▰ MDOT completed the draft of the Statewide Freight Plan and the State Rail Plan in 2022, which will help ensure that Maryland maintains a safe and reliable multimodal freight system

▰ MDOT SHA is focusing on three areas in future years: 1) asset management, which utilizes a system-preservation philosophy and also seeks to gain the best return on investment for future generations, 2) accessibility, to ensure all kinds of travelers have access to life's opportunities, and 3) mobility, which is about taking advantage of technology and data-driven systems to improve the efficiency of our existing footprint

MDOT MVA BRANCH OFFICE CUSTOMER WAIT AND VISIT TIME VERSUS CUSTOMER SATISFACTION RATING

ON TARGET

MDOT MVA's average customer wait and visit time is a key indicator of the quality and efficiency of service delivery to customers and is related to customer satisfaction (i.e., as MDOT MVA branch customer wait and visit time decreases, customer satisfaction increases).

BETTER

	2015	2016	2017	2018	2019	2020	2021	2022*
Percent rating	91.4%	92.1%	95.1%	92.5%	92.7%	95.8%	95.7%	98%
Visit time	30.3	33.1	31.1	26.8	35.4	28.4	25.1	34.1
Wait time	22	23	21	17	25	18	13	17

FISCAL YEAR

WAIT AND VISIT TIME (MINUTES)
PERCENT OF RESPONDENTS

■ Average Branch Office Customer Wait Time In Minutes
■ Average Branch Office Customer Visit Time In Minutes (includes Wait Time)
—●— Percent of Branch Office Customers Rating Service as "Good" or "Very Good"

TARGET: Average branch office customer visit time (minutes) Short-Term: 31.5 (FY 2023); Long-Term: 28.2 (FY 2024)
TARGET: Average branch office customer wait time (minutes) Short-Term: 15.2 (FY 2023); Long-Term: 11 (FY 2024)

2022 data are preliminary and subject to change.

WHY DID PERFORMANCE CHANGE?

◢ MDOT MVA saw almost a 10-minute reduction in wait time in fourth quarter of FY 2022 at an average of 11 minutes, compared to FY 2021 at 20 minutes

◢ The recently completed modernization project, Customer Connect, included a new queuing and scheduling system that helps select the exact type of appointment the customers need and allows MDOT MVA staff to prepare for the customer before their arrival

◢ MDOT MVA moved to an appointment-only model, allowing for better control over customer flow and arrival patterns to accommodate the needs of the business while meeting customer demand

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

◢ MDOT MVA will optimize appointment durations to match anticipated transaction times and create appointment schedules appropriate for each location's staffing levels, with flexibility to address temporary and seasonal demand and capacity issues

◢ MDOT MVA will continue to use real-time performance data reports to manage customer flows minute-by-minute to reduce wait time and identify opportunities for service improvements

OBJECTIVE: Minimize travel delays and improve predictability of travel times on Maryland's transportation system

PERCENT OF TRANSIT SERVICE PROVIDED ON TIME

ON TARGET

On time performance (OTP) is an important indicator of service quality and efficiency and correlates highly with system usage and customer satisfaction.

MODE*	2013	2014	2015	2016	2017	2018	2019	2020	2021**	2022	LONG-TERM TARGET
Local Bus	82%	81%	81%	85%	77%	68%	69%	74%	74%	74%	**85%**
Light Rail	97%	96%	97%	98%	96%	94%	95%	96%	92%	96%	**96%**
Baltimore Metro	97%	96%	95%	96%	96%	94%	94%	71%	90%	96%	**96%**
MARC	93%	92%	92%	94%	91%	91%	87%	92%	94%	92%	**96%**
Mobility Paratransit & Taxi Access	89%	91%	88%	92%	93%	93%	86%	89%	76%	91%	**95%**

Besides Local Bus, 2022 data is estimated and subject to change.

**2021 data has been revised from previous report.*

WHY DID PERFORMANCE CHANGE?

◢ OTP has been fairly steady across modes, except for an increase in 2022 for Mobility Paratransit and taxi access to 91% after a drop to 76% in 2021

◢ The recently completed North Avenue Rising Project, which includes 5.5 miles of dedicated bus lanes, bus stop improvements, intersection improvements, and bicycle and pedestrian safety projects, will benefit the OTP of buses in Baltimore traveling along the corridor
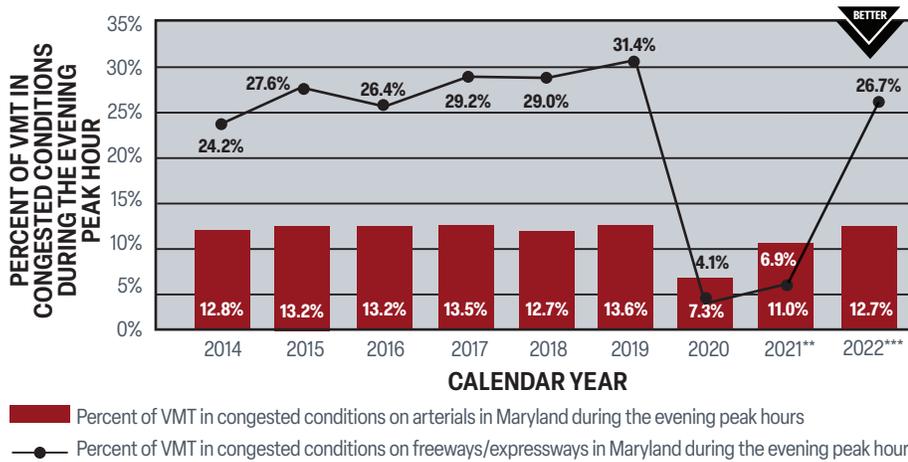
WHAT ARE FUTURE PERFORMANCE STRATEGIES?

◢ MDOT MTA is incorporating the use of increasingly sophisticated technologies to help us better understand customer demand patterns while also enabling us to build better schedules and routes

◢ MDOT MTA now has real-time information available on all transit modes, but will continue to improve real-time communications with our customers, which will allow for a better riding experience by enabling customers to plan their trips more accurately

PERCENT OF VEHICLE MILES TRAVELED (VMT) IN CONGESTED CONDITIONS ON FREEWAYS/ EXPRESSWAYS AND ARTERIALS* IN MARYLAND DURING EVENING PEAK HOUR (5-6 PM)

ON TARGET

This measure tracks MDOT SHA and MDTA performance in reducing congestion on the state highway system. This is an indicator of congestion and the people/vehicles impacted by congestion.

PERCENT OF VMT IN CONGESTED CONDITIONS DURING THE EVENING PEAK HOUR

Freeway/expressway line values:
24.2%, 27.6%, 26.4%, 29.2%, 29.0%, 31.4%, 4.1%, 6.9%, 26.7%

Arterial bar values:
12.8%, 13.2%, 13.2%, 13.5%, 12.7%, 13.6%, 7.3%, 11.0%, 12.7%

CALENDAR YEAR — 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021**, 2022***

▬ Percent of VMT in congested conditions on arterials in Maryland during the evening peak hours

—●— Percent of VMT in congested conditions on freeways/expressways in Maryland during the evening peak hour

TARGET: Percent of VMT in Congested Conditions on Arterials in Maryland During the Evening Peak Hour 13.4%

TARGET: Percent of VMT in Congested Conditions on Freeways/Expressways in Maryland During the Evening Peak Hour Short-Term: 26.7% (CY 2022) Long-Term: 31.2% (CY 2025)

In 2017, MDOT SHA moved to ESRI Roads and Highways System; this caused a system-wide shift in the numbers, which are now reported with one decimal to more clearly indicate system performance.

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

***2022 data are preliminary and subject to change.*

WHY DID PERFORMANCE CHANGE?

▮ Due to the uncertainty related to the COVID-19 pandemic and recovery, the estimation of the levels of traffic volumes has been difficult to determine, thereby affecting the 2021 actual data and requiring revisions to the future estimated data

▮ Evening peak hour traffic volumes have decreased by approximately 2.5% for the first half of 2022 from 2019 levels

▮ MDOT SHA's Coordinated Highway Action Response Team (CHART) handled 65,839 events during 2021 in relation to clearing incidents and aiding disabled vehicles

▮ As traffic volumes continue to rebound from peak pandemic levels, the total number of crashes and incidents continue to remain high
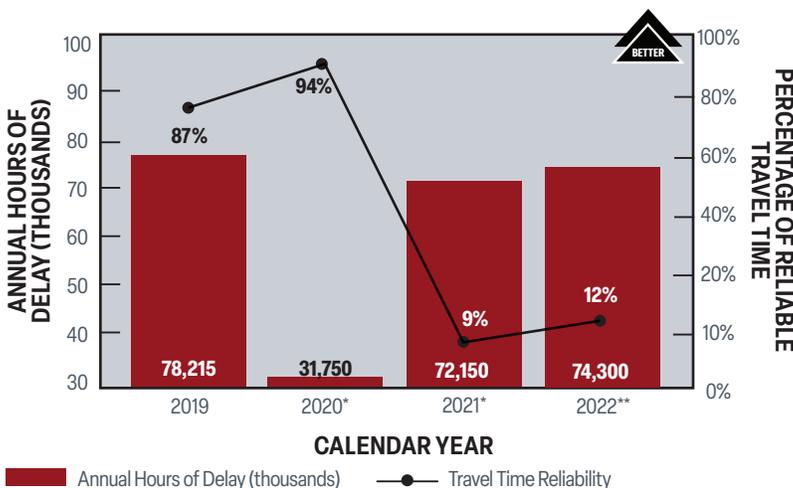
WHAT ARE FUTURE PERFORMANCE STRATEGIES?

▮ MDOT SHA will carefully monitor truck and other vehicle-type congestion and reliability trends to invest strategically in freight corridors and highway networks as Maryland continues to recover from the COVID-19 pandemic

ANNUAL HOURS (THOUSANDS) OF DELAY AND TRAVEL TIME RELIABILITY ON THE MDOT HIGHWAY NETWORK

TARGET ACHIEVED

As the Baltimore and Washington regions continue to grow in population and jobs, more users will continue to add demand and congestion on much of the transportation system that already operates at or above capacity at peak hours. This measure tracks MDOT SHA and MDTA performance in reducing congestion on the state highway system. MDOT SHA and MDTA continue to prioritize congestion reduction and mobility growth, while many projects, programs, and policies prioritize delay reduction. This measure is an indicator of overall congestion and the number of people/vehicles affected by delay on the Maryland highway network.

As MDOT improves travel time reliability, customers are better able to predict total trip time. MDOT uses a planning time index (PTI) to measure reliability. Any roadway segment that has a PTI less than 1.5 is defined as reliable, and MDOT uses the PTI threshold to determine the percentage of travel time reliability. This allows MDOT to determine when system changes need to be made.

ANNUAL HOURS OF DELAY (THOUSANDS) / **PERCENTAGE OF RELIABLE TRAVEL TIME**

Travel Time Reliability line values: 87%, 94%, 9%, 12%

Annual Hours of Delay bar values: 78,215, 31,750, 72,150, 74,300

CALENDAR YEAR — 2019, 2020*, 2021*, 2022**

▬ Annual Hours of Delay (thousands) —●— Travel Time Reliability

TARGET: 77,650 hours of delay in 2022; 13% travel time reliability 2022

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

***2022 data are preliminary and subject to change.*

WHY DID PERFORMANCE CHANGE?

▮ Traffic volumes decreased by approximately 10% for most of CY 2021 from CY 2019 levels due to the COVID-19 pandemic

▮ MDOT SHA's CHART handled approximately 65,839 incidents and disabled vehicle events during 2021 in relation to clearing incidents and aiding disabled vehicles

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

▮ The development and streamlining of active traffic management and integrated corridor management capabilities

▮ Evaluation of the CHART patrol program to determine continuing improvements in reduction in roadway delays and user cost savings

▮ Advancement of major TSMO projects, such as the planned deployment of peak-hour shoulder use along I-695, ramp-metering along I-270, deck rehabilitation and joint modifications on I-95, and work on the Bay Bridge Automated Lane Closure System (ALCS)

OBJECTIVE: Apply enhanced technologies to improve communications with the transportation system users and to relay real-time travel information

MDOT CUSTOMER SATISFACTION WITH THE ACCURACY OF REAL-TIME INFORMATION SYSTEMS PROVIDED

MAKING PROGRESS

Real-time information systems, installed throughout the transportation network and available via web interfaces and mobile devices, provide the most accurate information for customer trip planning and time-management. By surveying customer satisfaction for each real-time information system, MDOT TBUs can observe which systems are utilized most successfully and which systems require improvements.

MDOT CUSTOMER SATISFACTION WITH ACCURACY OF INFORMATION

REAL-TIME SURVEY RESULTS (MDOT SHA/MDTA)*
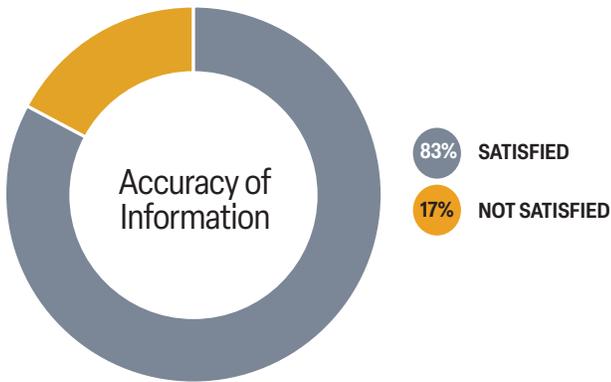
Accuracy of Information

83% SATISFIED
17% NOT SATISFIED

*The survey data reported is 2021 survey data; survey data reporting is delayed by a year due to the survey for the current year not being closed/completed at the time of publishing. 2022 survey data will be published in the 2024 Attainment Report.

REAL-TIME SURVEY RESULTS (MDOT MAA SHUTTLES AND PARKING)*

Accuracy of Information

92% SATISFIED
8% NOT SATISFIED

*The survey data reported is 2021 survey data; survey data reporting is delayed by a year due to the survey for the current year not being closed/completed at the time of publishing. 2022 survey data will be published in the 2024 Attainment Report.

WHY DID PERFORMANCE CHANGE?

- MDOT MTA now allows riders to view live transit vehicle locations, arrival predictions, and crowding information on Transit App and Google Maps
- MDOT leveraged "Beyond the Bus Stop" federal grant funds to provide real-time digital signage pilot at three major transit hubs
- In August 2021, MDOT MAA opened a FirstCall Medical Center at the BWI Marshall Airport, which provides health care services for the traveling public and airport staff
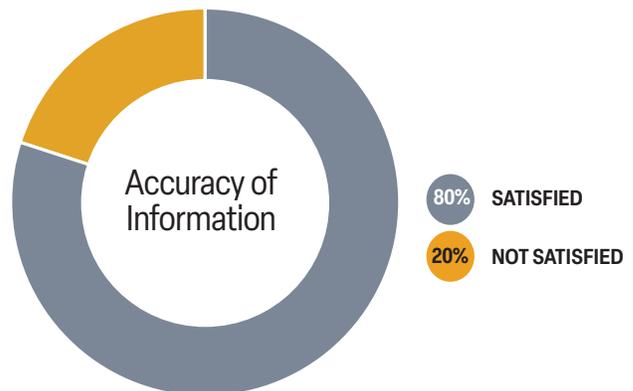
WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- MDOT SHA is facilitating real-time signal timing adjustment to support Eastern Shore Traffic Operations (ESTO) during summer months using Advanced Traffic Signal Performance Measures (ATSPM)
- To make way for enhanced TSMO and the deployment of Connected and Automated Transportation Systems (CATS), the Office of Transportation Mobility and Operations installs advanced traffic management system (ATMS) and advanced traffic information system (ATIS) technologies on interstate highways and arterials statewide as an ongoing effort; these include, but are not limited to, cameras, traffic detectors, weather sensors, Dynamic Messaging Signs (DMS), highway advisory radios (HAR), connected vehicle roadside units, websites, and telecommunication networks
- MDOT MTA's program Fast Forward: Customer Experience Enhancement Program, a $43 million initiative improving transit reliability, travel times, and customer safety and access, is expected to be completed by the end of 2023; this program will design and construct additional dedicated bus lanes, create new and enhanced transit hubs, add more bus shelters, make ADA and pedestrian safety improvements at and near bus stops, improve real-time signs, and enhance wayfinding at Light Rail stations by the end of 2024
- To meet the growing need for traveler WiFi and cellular connectivity, MDOT MAA embarked on a program to improve service throughout the BWI Marshall Airport terminal; as of FY 2022, MDOT MAA continues to expand and improve the services provided and Airport Service Quality (ASQ) passenger survey scores for BWI Marshall Airport's WiFi/Cellular service are on the rise
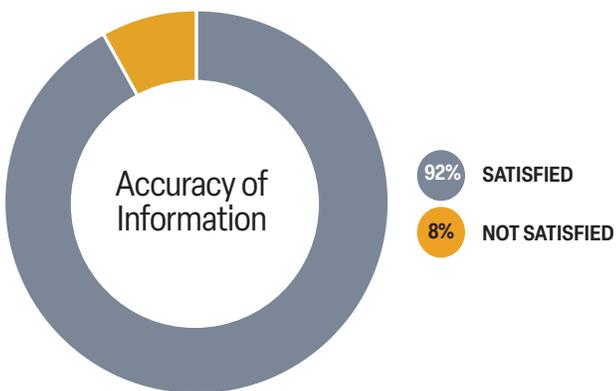
REAL-TIME SURVEY RESULTS (MDOT MTA MARC, LIGHT RAIL, METRO SUBWAY, AND BUS)*

Accuracy of Information

80% SATISFIED
20% NOT SATISFIED

*The survey data reported is 2021 survey data; survey data reporting is delayed by a year due to the survey for the current year not being closed/completed at the time of publishing. 2022 survey data will be published in the 2024 Attainment Report.