



FY2022 – FY2027

Maryland Consolidated Transportation Program

2022 State Report on Transportation

Larry Hogan
Governor

Boyd K. Rutherford
Lt Governor

James F. Ports, Jr.
Secretary

MARYLAND'S CONSOLIDATED TRANSPORTATION PROGRAM

The Consolidated Transportation Program (CTP) is Maryland's six-year capital budget for transportation projects. The Capital Program includes major and minor projects for the Maryland Department of Transportation (MDOT) business units: the Secretary's Office (MDOT TSO); the Maryland Aviation Administration (MDOT MAA); the Maryland Port Administration (MDOT MPA); the Motor Vehicle Administration (MDOT MVA); the State Highway Administration (MDOT SHA); the Maryland Transit Administration (MDOT MTA) – and authorities related to the MDOT, including the Maryland Transportation Authority (MDTA) and the Washington Metropolitan Area Transit Authority (WMATA).

In this document, you will find for every major project a Project Information Form (PIF) which includes project details, financial information, and construction status; you will also find a list of minor capital projects. The MDOT works together with residents, local jurisdictions, and local and state elected officials to include projects in the CTP that preserve investments and safety, enhance transportation services and connections, and improve accessibility and opportunity throughout the state. To help Maryland's citizens review this document, the CTP includes a summary of MDOT's financing and budgeting process and instructions for reading PIFs.

MDOT ensures nondiscrimination and equal employment in all programs and activities in accordance with Title VI and Title VII of the Civil Rights Act of 1964. If you need more information or special assistance for persons with disabilities or limited English proficiency, contact MDOT's Office of Diversity and Equity at **410-865-1397**.

For the hearing impaired, Maryland Relay 711.

For further information about this document or to order a hard copy, please contact Ms. Dawn Thomason at the Maryland Department of Transportation, Office of Planning and Capital Programming toll free at 1-888-713-1414, or locally at 410-865-1288. This document is also available online at: www.ctp.maryland.gov.

For more information on Maryland transportation, please visit us on the web at www.mdot.maryland.gov.

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MARYLAND'S CONSOLIDATED TRANSPORTATION PROGRAM

The Maryland Department of Transportation (MDOT) is pleased to present the state's Final six-year capital investment program for transportation, the Final FY 2022 – FY 2027 Consolidated Transportation Program (CTP).

The CTP is the capital budget outlook and a key part of the State Report on Transportation (SRT) which MDOT publishes each year. The SRT contains three important documents: the Maryland Transportation Plan (MTP); the Consolidated Transportation Program (CTP); and the annual Attainment Report (AR) on Transportation System Performance. MDOT last updated the MTP, the 20-year vision for Maryland's transportation system, in January 2019. The performance measures were updated along with the MTP, with direction from the AR Advisory Committee, based on the updated 2040 MTP Goals and Objectives (please visit mdot.maryland.gov/ARAC to learn more). The MTP and AR are updated every five years following extensive outreach efforts and collaboration with the public, local jurisdictions, and state agencies to ensure they reflect the needs and priorities of Marylanders. To learn more about the 2040 MTP, visit: mdot.maryland.gov/MTP. The 2040 MTP goals are:

- Ensure a Safe, Secure, and Resilient Transportation System
- Facilitate Economic Opportunity and Reduce Congestion in Maryland through Strategic System Expansion
- Maintain a High Standard and Modernize Maryland's Multimodal Transportation System
- Improve the Quality and Efficiency of the Transportation System to Enhance the Customer Experience
- Ensure Environmental Protection and Sensitivity
- Promote Fiscal Responsibility
- Provide Better Transportation Choices and Connections

The CTP contains projects and programs across MDOT. It includes capital projects that are generally new, expanded or significantly improved facilities or services that may involve planning, environmental studies, design, right-of-way acquisitions, construction, or the purchase of essential equipment related to the facility or service.

MAINTAINING PRIORITIES

This year's CTP reflects MDOT's priorities as delineated in the MTP goals and our mission statement (below). The state's transportation priorities follow federal and state requirements; address local government needs, interests, and concerns; and serve MDOT's customers and the critical supply chain.



MISSION STATEMENT

"The Maryland Department of Transportation is a customer-driven leader that delivers safe, sustainable, intelligent, and exceptional transportation solutions in order to connect our customers to life's opportunities."

The COVID-19 global pandemic had a significant impact on transportation use and consequently on Transportation Trust Fund revenues. The MDOT team stepped up to deliver critical services that helped other front-line workers get to their jobs and maintain connections across the supply chain and continued to support statewide transportation services and needs. Despite the challenges of operating during a pandemic health crisis, more than 10,000 MDOT employees and our private sector partners continued to deliver outstanding customer service in every business unit across the Department.

As the state's economy and transportation network continues to recover, this Final CTP looks to the future with a focus on preserving what we have, planning for future projects, and building what we can to further support Maryland's economy. With increasing revenues and resources, MDOT is

strategically and efficiently ensuring our transportation investments maintain and further our priorities. MDOT has developed a Blueprint to better outline MDOT's system of the future as an integrated, smart, cleaner, and more autonomous and connected system.

The MDOT Blueprint is a collaboration that reflects how we, as an agency without barriers, are transforming tomorrow's transportation today. Founded in the unique mission and goals of each Transportation Business Unit (TBU), and through the overlapping impact of projects and resources supported by multiple TBUs, MDOT is improving how we propel the movement of goods and services and connect people with the places where they live, work, and play. This is how our System of Systems safely and efficiently keeps Maryland on the move – this is how we create the complete customer experience. Grounded in safety, efficiency, access, and mobility, we are focused on the following collaborative themes and how we can work together to be more efficient, sharing resources to improve asset management, customer service, technology, data, and innovation, economic growth, and sustainability, environmental stewardship, and resiliency.

We will drive our initiatives with four strategic priorities:

1. Focus on the customer
2. Modernize the organization
3. Manage our assets
4. Advance major projects



Maintaining a Culture of Safety for Employees and Users of the Transportation Network

Safety continues to be the number one priority for MDOT. The COVID-19 global pandemic continues to present unique challenges to how MDOT employees across the Department interact with customers to deliver services. The Department also maintains a focus on protecting our employees on the front lines and behind the scenes through enhanced cleaning and disinfecting of facilities and services, providing Personal Protective Equipment, and reengineering worksites to facilitate social distancing. We will not compromise on our commitment to continually improve the safety and security of our customers and partners in everything we do.

It is critical we commit to safety and security in our designs, in our construction, as well as in our operations and maintenance of the state's transportation system. We promote a culture of safety in our business practices and educate our traveling public on good safety behavior and practices. MDOT works with our federal and local law enforcement partners on a daily basis to constantly evaluate and implement measures to reduce the vulnerability of Maryland citizens and facilities. With federal and state investments, progress is being made on a variety of fronts.



Traffic fatalities in Maryland increased from 535 in 2019 to 573 in 2020. Speeding accounts for more than 9,800 crashes and 4,500 injuries each year in Maryland. As no life lost is acceptable, MDOT continues to strive to do what it can to reduce traffic fatalities.

Strategic Highway Safety Plan

MDOT promotes traffic safety through the many infrastructure and behavioral programs and projects implemented by MDOT SHA and MDOT MVA Maryland Highway Safety Office, which is the lead agency for the state's Strategic Highway Safety Plan (SHSP). The SHSP is a statewide, comprehensive safety plan that provides a coordinated framework for reducing deaths and severe injuries on all public roads. Through extensive outreach and involvement of federal, state, local, and private sector safety stakeholders, the Plan establishes statewide goals and critical emphasis areas. As an outgrowth of this initiative, many local communities have developed, or are in the process of developing, local road safety plans using the SHSP as a guide. The Federal Highway Administration (FHWA) has designated this program as a proven countermeasure because it tailors solutions to local issues and needs.

MDOT continues to urge Marylanders to demonstrate safe behavior when driving by focusing on some simple, common rules of the road:



- Have a safe and sober ride... a designated driver, cab, ride share, or public transportation.
- Park the phone before you drive. Distracted driving accounts for more than 54,000 crashes and more than 26,000 injuries per year in Maryland.
- Always buckle up! It's the single most important way to save your life in a crash. Seatbelt use in Maryland was 89.9 percent in 2020.
- Adapt your driving. Leave a little early. You won't feel the need to speed or drive aggressively.
- Look twice for pedestrians, bicyclists, and motorcyclists, especially when changing lanes or approaching an intersection.
- Use crosswalks and bike lanes. Be visible on the road.
- Move over when approaching an emergency vehicle or tow truck using visual signals. If you are unable to move over, slow down.

Safeguarding Motorists and Monitoring the Roadways Across the State

MDOT SHA Coordinated Highways Action Response Team, or “CHART,” and the MDTA’s Courtesy Patrols and Vehicle Recovery Unit are incredibly vital as they continue to safeguard our highways, respond to crashes, and help stranded motorists, among their many other duties. CHART employees also monitor roadways 24/7 at the Statewide Operations Center (SOC), our comprehensive, command and control facility in Hanover. The MDTA has a similar Emergency Operations Center (EOC).



When an incident occurs, our MDOT SHA and MDTA employees are often the first to respond. CHART drivers patrol 2.4 million miles a year, respond to approximately 23,000 incidents, and assist another 27,000 motorists. This means they are helping a driver or responding to an incident every 10 minutes, even during this COVID-19 emergency. With satellite Traffic Operations Centers and emergency traffic patrols spread across the state to handle peak-period traffic incidents, CHART has assisted nearly 1.2 million motorists since the program began in the mid-1980s. MDOT SHA’s CHART incident management program saved motorists \$1.08 billion in user costs due to reduced delay, fuel savings and crash reductions, and helped reduce delays by 23.52 million vehicle hours in CY 2020. Meanwhile, MDTA drivers last year (CY 2020) patrolled more than 1.2 million miles, assisted drivers of 6,453 vehicles and changed 5,940 flat tires. They also removed 6,537 disabled vehicles from roadways.

MDOT Leadership in Safety Efforts

- In September 2020, MDOT MVA’s Maryland Highway Safety Office launched Be the Driver, a highway safety campaign focused on safe driving behaviors. It addresses areas of highway safety concerns as identified in Maryland’s SHSP and focuses on the common contributing factors of fatal crashes. These areas include Occupant Protection, Aggressive Driving, Impaired Driving, Distracted Driving, Motorcycle Safety, and Pedestrian and Bicycle Safety.
- Between September 2020 and April 2021, a multi-agency team participated in the Learning Collaborative on State Strategies to Strengthen and Leverage Data to Address Impaired Driving, hosted by the National Governors Association’s Center for Best Practices and supported by the Centers for Disease Control and Prevention. The Maryland team was led by MDOT MVA Administrator Christine Nizer, supported by Secretary Greg Slater, and focused on how to advance our efforts in collecting actionable impaired driving data and using it to improve public health and safety.
- For the seventh year, MDOT MTA continued to be ranked as the safest transit system of the top 12 U.S. transit agencies.
- During the past 10 winter seasons, MDOT SHA and MDTA were able to clear the roads on primary and interstate highways in fewer than four hours, on average.
- MDOT MVA’s work with REAL ID resulted in Maryland being the first state in the nation to be recertified by the Department of Homeland Security for REAL ID compliance. With about 80% of drivers and card holders already REAL ID compliant, MDOT MVA is well on its way to meeting the REAL ID deadline, which has been extended to May 3, 2023, due to the COVID-19 pandemic.

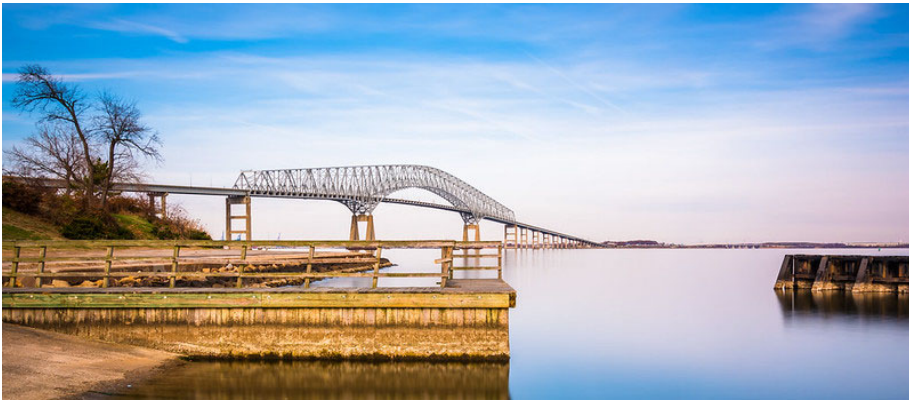


Asset Management

State of Good Repair is the condition in which a transportation asset, such as transportation infrastructure, services, or vehicles are able to operate at a full level of performance. MDOT is committed to ensuring all of its transportation assets remain in a State of Good Repair. To accomplish this, we continuously catalog and evaluate our assets, which helps us maximize our limited resources by directing them to those most in need of improvements.

Asset management is considered an integrated set of processes to minimize the lifecycle costs of infrastructure assets, at an acceptable level of risk, while continuously delivering established levels of service. Asset management is a holistic approach of balancing costs, opportunities, and risks against the desired performance of assets. MDOT houses the state's transportation agencies in one organization, ensuring the interconnectivity of the state highways, toll facilities, transit, aviation, ports, and motor vehicle and driver services. MDOT will continue to focus on the transportation infrastructure that is most in need of repair.

MDOT strives to maximize the value of every dollar. Maintaining our system in a state of good repair is our priority, and MDOT continues to emphasize allocating funds toward system preservation. The CTP reflects this priority by making continued investments in our: statewide bridge program; road and runway resurfacing; rail car overhauls and replacements; bus replacements; and general facility rehabilitation, replacement, and upkeep.



A key focus area is the condition of bridges across Maryland. MDOT SHA continues to make significant progress in reducing the number of poor rated bridges (the bridges are safe but need repairs/replacement) on the state's highway system to ensure safe travel for our customers. Each year, additional

bridges are identified as poor rated, and through our asset management plan, these projects advance to the construction phase as needed. MDOT recorded 29 poor rated MDOT SHA bridges - the lowest level since tracking began and one of the lowest percentages of any state transportation agency in the nation. These bridges are in the process of being addressed, with nine currently in the construction phase, and the rest in the design phase with construction funding either in place or pending.



MDOT SHA improved or treated approximately 91% of all State Highway lane miles since the beginning of FY 2015, spending \$168 million of system preservation funds in FY 2020 alone. In CY 2020, 87.2% of MDOT SHA's highway network was in overall preferred maintenance condition, and in CY 2020, 91% of the MDOT SHA and MDTA roadway network was in overall acceptable pavement condition, using MDOT SHA definitions. Using, Federal Highway Administration definitions, MDOT SHA has reported 89% of its system in fair/good condition.

In FY 2021, through the Statewide Aviation Grant Program, MDOT MAA administered \$2.2 million to public-use airports across the state. These grants support the flying public with airport improvement and infrastructure preservation projects, safety equipment acquisitions and environmental compliance activities. This state investment leveraged over \$33.1 million in Federal Aviation Administration funds and \$1.0 million in airport owner investment. This level of funding is expected to provide \$15-\$20 million each year over the next six years. In addition, \$2.4 million was allocated to non-state-owned public-use airports as part of the federal Coronavirus Response and Relief Supplemental Appropriation Act (CRRSAA).

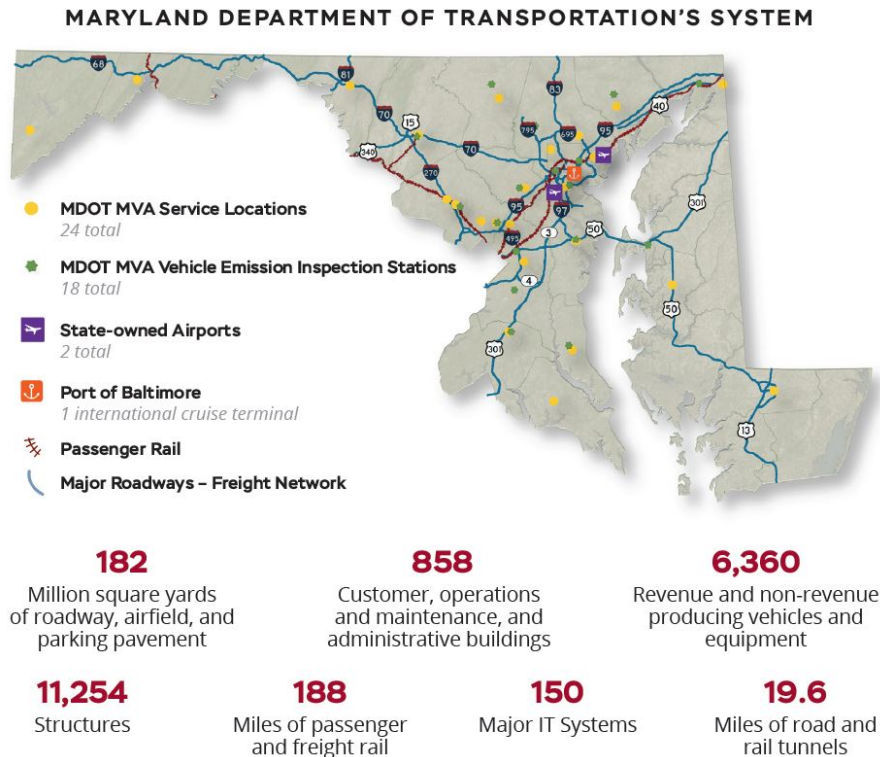
In December 2020, the MDTA re-opened the newly constructed I-895 bridge north of the Baltimore Harbor Tunnel (I-895), featuring two lanes of traffic in both the northbound and southbound directions from north of the tunnel,

through the tunnel and to the toll plaza. Fully completed in July 2021, the three-year, \$189 million I-895 Bridge Project replaced the 60-year-old bridges and Holabird Avenue exit ramp north of the Harbor Tunnel and rehabilitated the tunnel. The new northbound and southbound I-895 structures replace the MDTA's only poor rated bridge in its inventory.



Construction is underway on the MDTA's \$463 million project to build a new US 301 bridge to replace the 80-year-old Governor Harry W. Nice Memorial/Senator Thomas "Mac" Middleton Bridge over the Potomac River. The project is one of Maryland's largest transportation initiatives and will improve mobility, safety and economic opportunities for Southern Maryland, northeastern Virginia, and the region. The MDTA kicked off major construction in July 2020, and the new, wider, four-lane crossing will open to traffic by early 2023. Once open, the new bridge will:

- Double the vehicle capacity with four 12-foot-wide lanes, replacing the original bridge's two 11-foot-wide lanes.
- Improve safety by installing a barrier-separated median between eastbound and westbound lanes, adding two-foot shoulders and other improvements that meet current safety standards.
- Eliminate lane-shifting safety issues at toll booths by replacing them with all-electronic (cashless) tolling (AET).
- Enable tall ships to pass beneath its 135-foot clearance.



Transit Fleet



MDOT MTA is investing in fleet modernization across all modes to support safe and reliable operations and enhance passenger comfort and convenience. Key highlights include:

- The \$400 million replacement of metro railcars and signal system is underway.
- The \$160 million overhaul of the 53-vehicle light rail vehicle fleet continues to move forward.
- The \$54 million overhaul of 63 MARC III passenger coaches which is advancing with seven overhauled coaches currently in service.
- The \$280 million to rehabilitate and renew metro tunnel, track, systems, and stations.

MDOT MTA received a grant for a few 60-foot articulated low or no emission vehicles through the Federal Low or No Emission Grant. MobilityLink paratransit vehicles also continue to be replaced and are being evaluated for low or no emission vehicle opportunities. Also, MDOT MTA is currently working on the next five-year contract to purchase all zero emission Core buses.

Customer Service

Under Governor Hogan's leadership, MDOT aims to provide premier customer service to all customers. There are many examples highlighting MDOT employees providing exceptional customer service.

MDOT MVA launched its new *Customer Connect* system, providing additional options and increased flexibility for Marylanders doing business with

MDOT MVA. *Customer Connect* provides more access to online transactions, reduces the use of paper forms, and enhances security. With more online services now available than ever before, MDOT MVA is encouraging residents to take advantage of the convenience provided by *Customer Connect* from the comfort and safety of home.

The federal REAL ID deadline has been extended to May 2023. If you are unsure about your identification status MDOT MVA's REAL ID Lookup Tool (<https://mva.maryland.gov/Pages/realidlookup.aspx>) provides 24/7 access to check REAL ID status by entering a driver's license or ID card number on the secure website. In addition, an Online Document Guide (license.mva.maryland.gov) provides a checklist of documents and allows customers to schedule an appointment at any MDOT MVA branch.



In August 2020, MDOT MAA opened the new five-gate extension of A Concourse, which added important services and amenities for travelers and supports further growth from Southwest Airlines. The \$48 million improvement project consists of a 55,000 square-foot, five-gate extension of Concourse A. The project includes new airline hold-rooms and jet bridges, upgraded restrooms, and three new food and retail concessions. This project received five awards from the Maryland Quality Initiative (MDQI) including the 2021 Project of the Year.

MDOT MAA welcomed a new concept that offers private rest and workstation rooms for BWI Marshall Airport passengers. Minute Suites offers private rooms where airport passengers can relax, nap or work before a flight or during a layover. At BWI Marshall, Minute Suites provides five relaxation and workstation rooms on Concourse C. The private rooms are accessible for passengers flying from concourses A, B, or C. The Minute Suites include a daybed, television, workstation, free WiFi, and other amenities.

Technology, Data, and Innovation

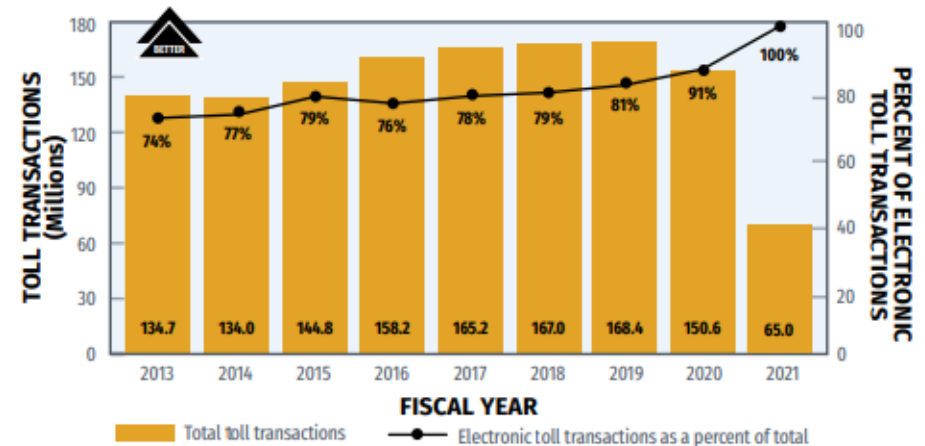
In August 2020, Governor Hogan announced the permanent transition to full-time all-electronic tolling across Maryland, including at the John F. Kennedy Memorial Highway (I-95), Fort McHenry Tunnel (I-95), Baltimore Harbor Tunnel (I-895), and Nice/Middleton Bridge (US 301). The system provides convenience for motorists, less engine idling for better fuel efficiency and reduced emissions, decreased congestion, and increased safety. The MDTA implemented temporary all-electronic tolling statewide in March 2020 as part of its COVID-19 response and made all-electronic tolling permanent at the Bay Bridge in May 2020 with the installation of a new tolling gantry. Other MDTA facilities, including the Intercounty Connector (ICC)/MD 200, I-95 Express Toll Lanes in Baltimore, and the Key (I-695) and Hatem (US 40) bridges, had already operated using all-electronic tolling.



In April 2021, the MDTA brought Maryland into the next generation of tolling with the launch of DriveEzMD. The launch 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*, a brand-new Pay-By-Plate option, and Video Tolling.

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



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

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

Regional Transit Plan for Central Maryland and Statewide Transit Plan

MDOT MTA completed a new Regional Transit Plan (RTP) for Central Maryland, providing a 25-year plan for improving public transportation. The Plan focuses on seven topics to provide a better understanding of what transit resources exist while also exploring opportunities to improve mobility. Those topics include: State of Good Repair; Funding; New Mobility; Customer Experience; Service Quality and Integration; Access; and Corridors. The Central Maryland Region includes Anne Arundel, Baltimore, Harford and Howard counties as well as Baltimore City. MDOT MTA collaborated with a broad range of partners, including a regional commission, local governments, other transit providers, and the public to develop this Plan. In 2020, the RTP Implementation Team was formed and will, along with the public and all stakeholders, be engaged in implementing 30 strategies identified in the 5-year action plan. More than half of those strategies, 22 in total, were started or completed in the first year of implementation. To learn more and view the progress dashboard, or to view the Plan, visit: rtp.mta.maryland.gov.

The 5-year action plan includes the launch of the first two RTP Corridor Feasibility Studies – North-South Corridor roughly between Towson and Downtown Baltimore and an East-West Corridor between the Bayview

community and Ellicott City. To learn more about the RTP corridors, visit: <https://rtpcorridors.com/>.

MDOT MTA is also addressing statewide planning needs through the Statewide Transit Plan (STP). The Statewide Transit Plan will outline a 50-year vision for transit in Maryland and builds upon existing regional and local transit plans across the state. The Draft STP is completed and was released for comment on January 5, 2022. MDOT MTA is currently accepting public comments until February 18, 2022. To learn more about the STP, visit: <https://www.mta.maryland.gov/statewide-plan>.



Transit Apps

MDOT MTA continues to promote two mobile apps for smart phones. The CharmPass Mobile Ticketing app, introduced in September 2018, allows riders to pay for MDOT MTA services from a smart phone for all Local Bus, Metro SubwayLink, Light RailLink, MARC Train, and Commuter Bus Services. Electronic and mobile fare payment allowed for the creation of a 90-minute free transfer policy and use of employer-sponsored transit benefits within the app. MDOT MTA launched a partnership with Transit app in June 2018, which provides real-time transit information, trip planning, and step-by-step navigation. Further, through the Transit app, MDOT MTA launched real-time tracking for MARC Train service in August 2020.

MDOT MTA has also provided grants and technical support to Locally Operated Transit Systems to launch mobile ticketing in rural and suburban service areas. For example, MDOT MTA's Statewide Transit Innovation grant provided funding for Cecil Transit to launch its own trip planning and mobile payment app. MDOT MTA continues to work with local and private transit providers toward increasingly integrated and open payment and trip planning options.

Reliable, On-Time Service

BaltimoreLink, launched in June 2017, continues to provide more people with faster and more reliable access to transit, jobs, and services in the region. Since the launch of BaltimoreLink, on-time performance (OTP) has increased substantially. To achieve improved OTP, MDOT MTA implemented new programs and innovations, including dedicated bus lanes and transit signal priority, to make riding easier and more efficient than ever.

Real-time Global Positioning System (GPS) data is one of the tools MDOT MTA uses to manage and monitor service. MDOT MTA uses real-time data daily to resolve identified service issues along specific routes. MDOT MTA has an online performance dashboard that offers searchable performance data for all core services, including Local Bus routes (CityLink, LocalLink, and Express BusLink), which provides on-time, early, and late arrival percentages. Light Rail, Metro, MARC, and Commuter Bus riders can also access this real-time information through the "Transit" app to know when their bus or train will arrive. To learn more about the performance improvements, visit: mta.maryland.gov/performance-improvement.

MDOT MTA launched the Transit Priority Initiative (TPI) in 2018, building on traffic improvements such as dedicated bus lanes and transit signal priority piloted for BaltimoreLink, and identifying additional roadways and bus routes to prioritize for similar improvements. A TPI Toolkit was published identifying additional tools for increasing travel time reliability, reducing delays, and enhancing pedestrian and bicyclist safety and outlining how and why MDOT MTA might apply each treatment to improve service. MDOT MTA has conducted outreach and conceptual plans for the Belair Road/Gay Street Corridor and Garrison Boulevard/Bloomingdale Corridor. MDOT MTA was also awarded Transportation Alternatives Program (TAP) grants to advance design and begin planning additional corridors. To learn more about the Transit Priority Initiative, visit: <https://www.mta.maryland.gov/transit-priority-initiative>.



Commuter Choice Maryland

To promote commuter travel alternatives and support the mobility, health and wealth of its community, environment, and business partners, MDOT continues to promote Commuter Choice Maryland. The benefits of Commuter Choice Maryland are significant, as were demonstrated during mandatory remote work orders in 2020. Commuter Choice Maryland encourages commuters to explore and use alternate means of transportation to and from work, giving them travel choices convenient to them, such as transit, ridesharing (carpool/vanpool), biking, walking, teleworking, and alternative work schedules. These options help reduce commuter stress, reduce congestion, and conserve energy. We have also observed that Commuter Benefits help to attract and retain top employee talent.

Maryland businesses offering Commuter Benefits can also take advantage of the Maryland Commuter Tax Credit, designed to encourage businesses of all sizes to provide Commuter Benefits to their employees.

In 2020, during the COVID-19 pandemic, many people were ordered or strongly encouraged to work from home, which gave us an opportunity to assess how many people could effectively and productively work remotely, while improving air quality and reducing congestion. Studies have shown that many people working remotely are working on average up to three hours more per week and being very productive. As people more widely return to their office location, they should continue to consider teleworking as an option, as appropriate.

Commuter Choice Maryland began seeking partners with state and local organizations, nonprofits and private-sector companies across Maryland for its new Commuter Choice Maryland Partner Program. Through the program, Commuter Choice Maryland partners with organizations to help them promote Commuter Benefits, and also recognizes employers across the state who are leaders in promoting alternative commuting options and benefits. These

partners are helping Maryland achieve important goals, such as reduced traffic congestion, cleaner air and fewer greenhouse gas emissions, as well as increased economic opportunity.

To learn more, please visit CommuterChoiceMaryland.com or email: commuterchoice@mdot.maryland.gov or call: 410-865-1100 between 8:30 am and 5:00 pm Monday – Friday.

IncenTrip

MDOT has launched the expansion of the incenTrip application statewide into Maryland as a congestion mitigation effort. The purpose of incenTrip is to reduce traffic congestion in the weekday peak periods by encouraging Maryland travelers and employers to increase the use of public transportation, ridesharing (carpooling and vanpooling), walking, biking, teleworking, and alternative work schedules. Maryland travelers using the application will earn points when they make decisions to avoid congestion, and the points can be redeemed for rewards.

Connected and Automated Vehicle (CAV) Technology

Connected and automated vehicles (CAV) are an important foundation for the future of mobility in Maryland as we continually strive to increase access to all transportation options and improve the reliability of our transportation system. Maryland is embracing CAV technology and innovation through continuing collaboration with a wide variety of stakeholders, including planners, engineers, emergency responders, private entrepreneurs, researchers, policymakers, and many others within Maryland. Maryland's [CAV Working Group](https://www.mdot.maryland.gov/MarylandCAV) (www.mdot.maryland.gov/MarylandCAV) provides a central point of coordination for all entities seeking to test and develop CAV technology, as the Group sets about implementing tangible strategies that will enable us to reap the benefits of CAV technology in a safe and efficient manner. CAV will not only affect transportation, but this life-changing technology will impact our health, prosperity, and access to resources during difficult times. This technology can help save lives. Lack of action is a real risk; keeping the status quo will mean hundreds of lives every year in Maryland will continue to be lost due to traffic-related crashes.

CAV could change all aspects of mobility—from the way we commute to how we plan and develop infrastructure for future cities and towns. CAV technology leverages connected capabilities with automated features to provide the highest benefit of safety redundancies on the roadway. Connected vehicles “talk and listen” to infrastructure, other vehicles, and mobile devices – to warn a human driver of an impending hazard, enable a vehicle to operate more efficiently, or guide a vehicle to take appropriate action given the

surroundings. Automated vehicles use sensors and other technologies to understand the environment to similarly assist drivers or guide the vehicle; eventually, very high-level automation may be able to perform driving tasks in place of a human driver. Maryland is proactively providing tangible information to our communities and stakeholders to help effectively realize the benefits this vehicle technology can provide. The recently published [Maryland CAV Strategic Framework](#) demonstrates the state's continued leadership in this area and focus on identifying the many life-saving and economic benefits of CAV technology, while continuing to prioritize collaboration across the state.



Economic Growth - Keeping Maryland Moving

Maryland's transportation system is essential to the state's economy. An efficient transportation system provides a competitive advantage to businesses in a regional, national, and global marketplace. Transportation directly impacts the viability of a region as a place that people want to live, work, and raise families, all critical to keep Maryland moving. Transportation infrastructure provides value and investing in Maryland's transportation system creates jobs and supports essential employees and Maryland industries and businesses.



BWI Airport

Over the last five years (2015-2020), air cargo tonnage at BWI Marshall has increased at an average annual rate of 19% - more than doubling the volume processed in 2015. Much of this can be attributed to the shift in consumer buying patterns to e-commerce and last-mile delivery. With the opening of the new Midfield Cargo building in late-2019, BWI Marshall has become one of Amazon's top 5 busiest air cargo facilities in the nation (out of 35) and currently employs over 1,200 persons. As of 2020, BWI Marshall has 57% of the regional market share handling more cargo than Dulles International and Reagan National airports combined. Moving forward, MDOT MAA continues to explore opportunities to accommodate growth in both the domestic and international air cargo markets.

Port of Baltimore

In CY 2020, the Helen Delich Bentley Port of Baltimore handled 1,729 ship calls that brought 37.3 million tons of foreign cargo to Maryland. The Port remains top ranked among all U.S. seaports for cars/light trucks, Ro/Ro, and imported gypsum. Nearly 140,000 jobs in Maryland, including more than 15,300 direct jobs, are generated by the Port of Baltimore.

The ongoing cargo increases at the Port of Baltimore's public marine terminals are spurring capital projects that will place the Port in a very competitive position for future growth. The MDOT MPA is reconstructing and strengthening its Dundalk Marine Terminal berths to better accommodate the increasing size of heavy farm and construction machinery. The Port of Baltimore currently handles more of this commodity than any other port in the nation.



Dredging has been completed for a second, 50-foot berth at the Seagirt Marine Terminal and four additional Neo-Panamax cranes arrived in September 2021. The cranes are expected to be fully operational in FY 2022 and will allow the Port of Baltimore to handle two Ultra Large Container vessels simultaneously. Complementing the new Seagirt berth is the expansion of Baltimore's Howard Street Tunnel. The expanded tunnel, currently underway, will allow for double-stacked container rail cars, clearing a longtime hurdle for the Port and giving the East Coast seamless double-stack capacity from Maine to Florida. The Howard Street Tunnel project benefits from public-private investment from the federal government, Maryland, CSX, and others, and is expected to increase the Port's business by about 160,000 containers annually. It will also generate about 6,550 construction jobs and an additional 7,300 jobs from the increased business. The project received final National Environmental Policy Act approval in FY 2021 and broke ground in FY 2022. More information on the Howard Street Tunnel Project can be found at: <http://www.mpa.maryland.gov/HST>.

General Freight

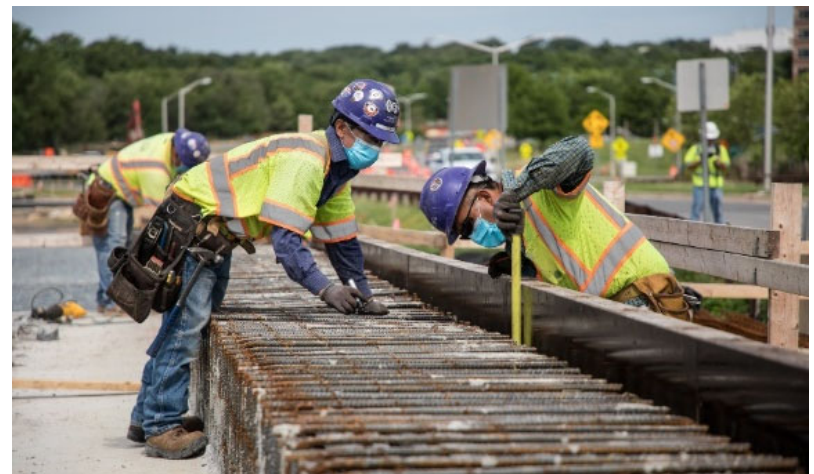
To meet other freight needs, MDOT is taking an aggressive approach to implement other multimodal freight solutions in Maryland. Please refer to the

CTP Freight Summary Section on page FRT-1 of the CTP for a listing of MDOT's freight projects. In addition to capital projects, MDOT is involved in several freight planning efforts, including a recently completed Statewide Truck Parking Study and is working on updating the State Rail Plan and the State Freight Plan. Additional information on MDOT's freight activities can be found on MDOT's website at: mdot.maryland.gov/freight.

Public-Private Partnerships

Public-Private Partnerships (P3) will continue to be an important tool over the coming years, where we can find opportunities to partner with our federal, state, regional, local, and private partners to advance projects of importance to Maryland. MDOT has a demonstrated history of successful P3 projects at the Port of Baltimore and travel plazas owned by the MDTA.

The P3 agreement with Ports America Chesapeake continues to solidify the Port's position as Maryland's economic engine. The above-described second 50-foot-deep berth project at Seagirt Marine Terminal is part of a \$122.1 million investment, with \$105 million from Ports America, \$10.5 million from the state and \$6.6 million in federal funding.



MDOT remains committed to the construction of the entire 16-mile Purple Line light rail corridor which will connect Prince George's and Montgomery counties inside the Capital Beltway, with 21 stations connecting to: Metrorail's orange, green, yellow, and red lines; the MARC Brunswick, Camden, and Penn lines; regional and local bus services; and Amtrak at New Carrollton. Partnering with the concessionaire's new contractor construction efforts to complete the project are now ramping up over the next few months. For more information about the project, visit: purplelinemd.com.

Work also is progressing on the Hogan Administration's Traffic Relief Plan (TRP) to reduce traffic congestion, increase economic development, enhance safety and improve Marylanders' quality of life. The TRP includes a number of projects -- the largest being the I-495 and I-270 P3 Program's Phase 1: New American Legion Bridge I-270 to I-70 Traffic Relief Plan. The first section of the New American Legion Bridge I-270 to I-70 Traffic Relief Plan, known as Phase 1 South, will advance the historic Capital Beltway Accord between Maryland and Virginia by replacing the nearly 60-year-old American Legion Bridge (ALB) while providing congestion relief for millions of travelers in the National Capital Region. To start, Phase 1 South proposes to provide two new High-Occupancy Toll (HOT), lanes in each direction from the vicinity of the George Washington Memorial Parkway in Virginia across the ALB to I-270 and up I-270 to I-370 while keeping the existing general-purpose highway lanes free. The HOT lanes will help meet the region's growing travel needs for a balanced transportation system by providing new options and opportunities for multi-modal travel – bus transit, carpooling and vanpooling, improved bike/pedestrian and vehicle connections -- and the choice to pay a toll when Marylanders need a faster, more reliable trip. The second section of the New American Legion Bridge I-270 to I-70 Traffic Relief Plan, known as Phase 1 North, is in the early planning stages and will look to extend the HOT lanes north to I-70 in Frederick. Up-to-date information is provided on the P3 Program website at: oplanesmd.com.

Work also continues on the Hogan Administration's Baltimore Traffic Relief Plan, including the I-695 Transportation Systems Management and Operations (TSMO) and I-695 at I-70 Triple Bridges projects. The I-695 TSMO project will reduce congestion and improve reliability on I-695 from the I-70 Interchange to MD 43 through a number of strategies, including converting portions of the existing median shoulder to a toll-free travel lane during the morning and evening rush hours. The I-695 at I-70 Triple Bridges project will address the structural needs at the interchange, reduce congestion, and retain all existing access movements.

The second element of the Baltimore TRP is the extension of the Express Toll Lanes (ETLs) on I-95 north of Baltimore, which will provide innovative congestion relief. This MDTA project, funded with toll revenue, will extend the two-lane ETL to MD 24 including replacing bridges along the route and reconstructing the MD 24 and MD 152 interchanges. Construction is already underway on this key project.

The third element of the TRP is the deployment of cutting-edge smart traffic signals to improve traffic operation and ease congestion. Sixteen of the currently planned 32 corridors across the state have been completed. The system uses real-time traffic conditions and computer software that adjusts the timing of traffic signals, synchronizes the entire corridor, and effectively

deploys artificial intelligence to keep traffic moving. More information on the complete Traffic Relief Plan is available on the MDOT SHA website: roads.maryland.gov.



Walking/Biking

Maryland, like many parts of the country, is seeing an increased interest in biking and walking as a significant transportation mode and an integral part of the state's broader transportation approach. Safe infrastructure for people walking and biking is essential to MDOT contributing to the broader statewide goals of reducing greenhouse gas emissions, alleviating congestion, encouraging healthy activities, and supporting activity-based tourism and economic development.

Throughout October 2021, MDOT hosted the second-annual Walktober campaign alongside various state agencies, county governments, and national non-profit organizations. The Walktober campaign builds from core agency partnerships around health, education, and aging to help celebrate the seventh annual "Walk Maryland Day" on October 6, 2021, while expanding the agenda to reflect broader planning and advocacy concerns identified as part of Maryland's Bicycle and Pedestrian Master Plan. Over 50 individual events and programs were held in October 2021 throughout the state to encourage walking, which is Maryland's official state exercise. On Thursdays throughout the month, MDOT offered free walk-focused webinars (called Walkinars), which discussed topics such as infrastructure, safety, and health.

Walktober 2021 built on the success of 2020's event with the creation of MDOT's Pedestrian newsletter, titled *Walk this Way*, and the addition of the Pedestrian Subcommittee of the Governor's Maryland Bicycle Pedestrian Advisory Committee. Planning has already begun for Walktober 2022 where the hope is more in-person activities can occur. To learn more about Walktober, visit: mdot.maryland.gov/walktober.



MDOT is committed to improving bicycle and pedestrian safety, access and mobility. MDOT SHA's Context Driven approach has improved pedestrian safety statewide and created separated bike lanes expanding network connectivity. The CTP includes key discretionary programs, such as the Federal Transportation Alternatives Program and the state's Kim Lamphier Bikeways Network Program. For the third year in a row, \$3.8 million is available for local jurisdictions through the Bikeways Program for the design and construction of bike facilities.

Together, these program investments are strengthened by comprehensive guidance for all MDOT customers in Maryland. Targeted strategies and initiatives identified in this document, along with the 2040 Maryland Transportation Plan, ensure MDOT is responsive to changing needs and opportunities to improve active transportation connectivity and safety for all.

Sustainability, Environmental Stewardship, and Resiliency

MDOT is committed to environmental stewardship and continues to be a national leader in implementing innovative and multimodal strategies that protect our natural, cultural, and community resources. The following examples illustrate how MDOT works in coordination with state, local, and national partners, among others, to ensure that we make sustainable progress toward our state and local goals related to air and water quality, as well as energy and land conservation.

Through partnerships with the Maryland Department of the Environment (MDE) and the state's Metropolitan Planning Organizations (MPOs), MDOT is

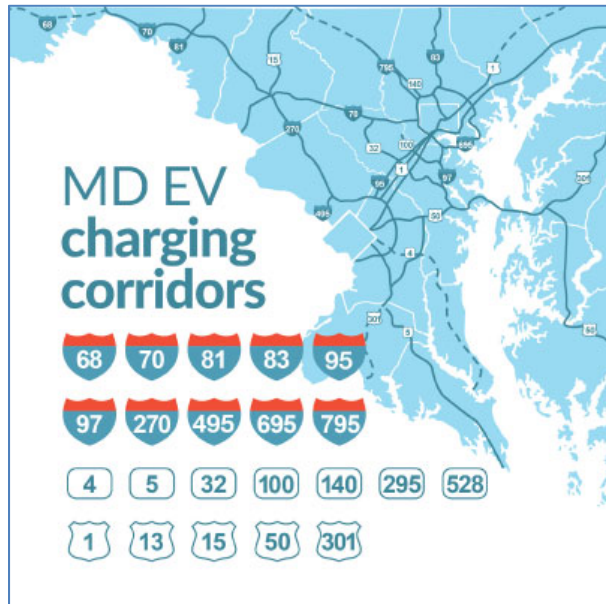
reducing emissions of criteria pollutants, such as particulate matter, as well as the ozone precursors, volatile organic compounds (VOCs) and nitrogen oxides (NOx). In addition to addressing the National Ambient Air Quality Standards (NAAQS) for criteria pollutants, set by the US Environmental Protection Agency (EPA), MDOT is also working to reduce greenhouse gas (GHG) emissions from the transportation sector. Maryland has goals to reduce GHG emissions statewide by 40 percent by 2030, from 2006 emissions levels. In July 2020, the World Resources Institute (WRI) recognized Maryland as the top GHG-reducing state in the nation. The WRI study on "America's New Climate Economy" found that Maryland has successfully reduced emissions by 38 percent between 2005 and 2017 all while growing our economy. MDOT continues to produce annual reports illustrating the progress made toward reducing transportation sector GHGs and submits those state agency reports to the Maryland Commission on Climate Change and the Maryland General Assembly.



Criteria pollutant and GHG emissions from the transportation sector are greatly reduced through vehicle technology advancement. This includes the passage of corporate average fuel economy (CAFE) standards, the advent and adoption of electric and hybrid-electric vehicles (EVs), and the burgeoning opportunity afforded through CAV technologies. MDOT continues to lead Maryland's Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC) and the Maryland CAV Working Group. We have found success through collaboration, boasting robust growth in EV ownership and publicly available charging infrastructure.

During the last year from January to December 2021 EV ownership in Maryland increased by more than 41% percent from 29,268 to 41,474 registrations. Under MDOT's leadership, Maryland has successfully nominated 22 EV alternative fuel corridors (AFCs), two liquified petroleum gas (LPG) AFCs, one compressed natural gas (CNG) AFC, and one liquified

natural gas (LNG) AFC under the FHWA's AFC solicitation. These corridor designations are key to utilizing new federal EV charging infrastructure funding in the Infrastructure Investment and Jobs Act.



The MDOT has worked to facilitate and support the deployment of Electric Vehicles (EVs) and Electric Vehicle Supply Equipment (EVSEs) to mitigate climate change and improve air quality. To support this growing demand, Maryland has been working to deploy a robust EVSE infrastructure of more than 1,100 charging stations and 3,000 charging outlets. Of these, 24 EV charging stations are available at light rail, metro, bus, and MARC train stations, providing a EV-to-transit connection by allowing EV drivers to charge their vehicle at the transit station while completing their trip using transit.

MDOT also invests in a variety of Travel Demand Management (TDM) strategies that provide alternatives to driving alone and limit emissions from the transportation sector. TDM efforts, such as carpooling, car sharing, transit, teleworking, and variable pricing infrastructure, as promoted in the Commuter Choice Maryland program, reduce congestion and lower commuting costs, in addition to providing environmental benefits. MDOT's work force is also participating in telework on a broader scale in the aftermath of pandemic restrictions, and we will continue to monitor these arrangements.

Four MDOT TBUs were awarded Volkswagen Settlement funds to replace more than 40 vehicles. These funds will allow MDOT MAA to incorporate zero emission vehicles (ZEV) into airport shuttle operations, MDOT MTA to

transition to ZEV transit buses, and MDOT SHA and MDOT MPA to replace older vehicles and equipment. More than 200 tons of NOx will be reduced as a result of these vehicle replacements. MDOT TBUs also have begun planning for MDOT light-duty fleet vehicle electrification and installation of EV charging stations at MDOT work sites.

In May 2021, MDOT MAA and BGE installed new electric vehicle charging stations at BWI Marshall Airport. The four new DC fast charging (DCFC) stations, located in the Airport's Cell Phone Lot, will allow motorists to charge their electric vehicles while waiting for airline passengers to arrive.

By coordinating land-use, transportation, and resource planning with partners in other agencies and local governments, MDOT helps to ensure that the investments made will meet multiple needs for the citizens of Maryland. Using the state's Green Infrastructure Plan and Chesapeake Bay Restoration priorities as a guide, MDOT TBUs are minimizing negative impacts and using project mitigation to support the state's broader conservation goals. To help decrease pollution from entering our waterways, the CTP supports a three-pronged approach: retrofitting older parts of the transportation network with the latest stormwater management technology; restoring natural filters through stream restoration, forest establishment, and wetland creation; and adopting protective operational practices. These actions will move the state closer to meeting mandated water quality targets.

Chapter 30

The Maryland Open Transportation Investment Decision Act – Application and Evaluation (Chapter 30) required MDOT to develop a project-based scoring system to rank major highway and transit transportation projects under consideration for funding in the CTP. Chapter 30 established nine goals and 23 measures to evaluate these major projects. The project-prioritization model required under Chapter 30 does not select major transportation projects for funding but is one of many tools MDOT will utilize in its project-selection process. The project evaluation results for this year are shown in the appendix of this CTP.

MDOT created a Chapter 30 scoring model that establishes how the 23 measures are defined and measured and created a weighting structure to score and prioritize the projects. For more information, visit: mdot.maryland.gov/Chapter30.

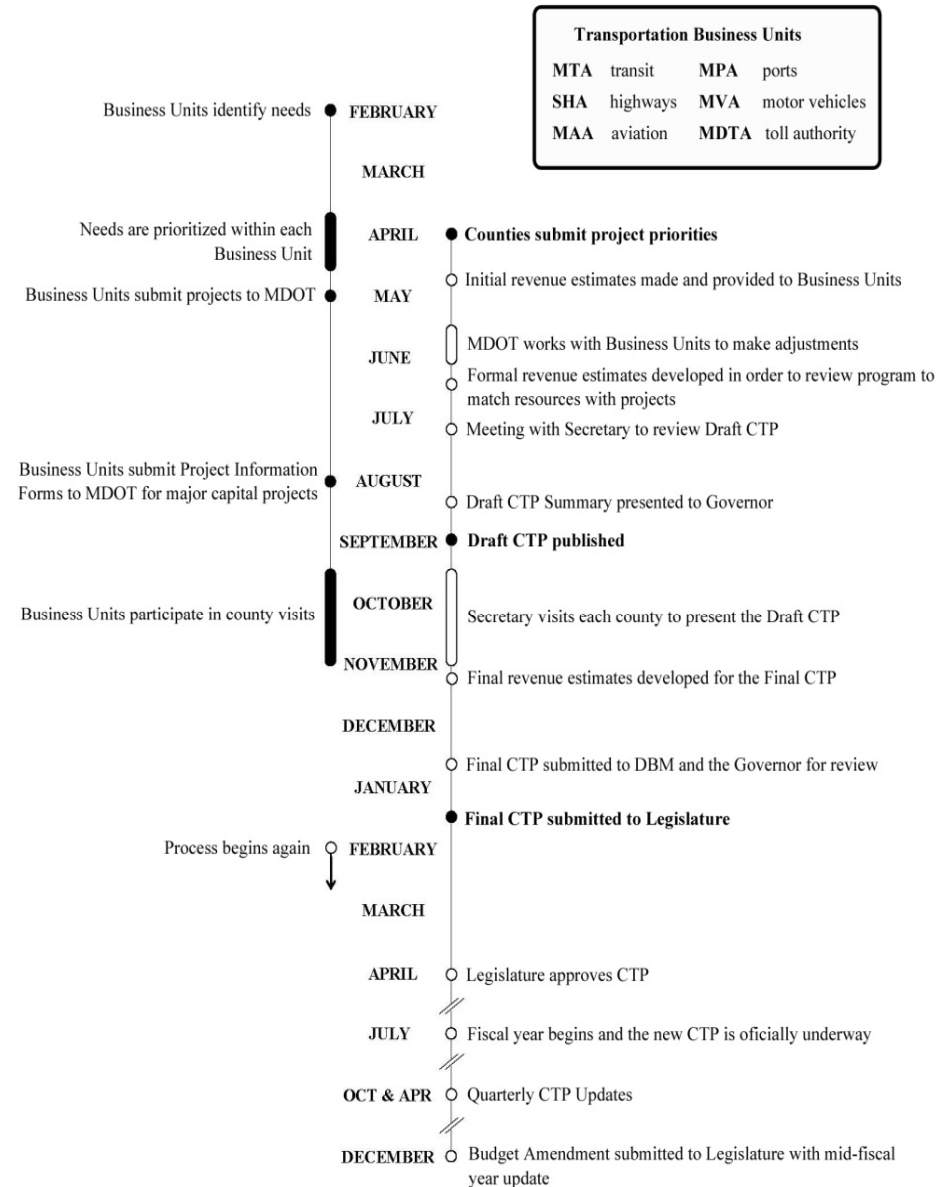
Process for CTP Development

The CTP takes nearly a full year to create through the work and collaboration of MDOT staff with state, regional and local elected officials. Each year, local jurisdictions are encouraged to submit priority project(s) to the state by April. It is important for MDOT to hear from local jurisdictions to facilitate collaboration on state and local needs. MDOT has established criteria to identify projects and programs responsive to the state's transportation priorities.

These criteria include:

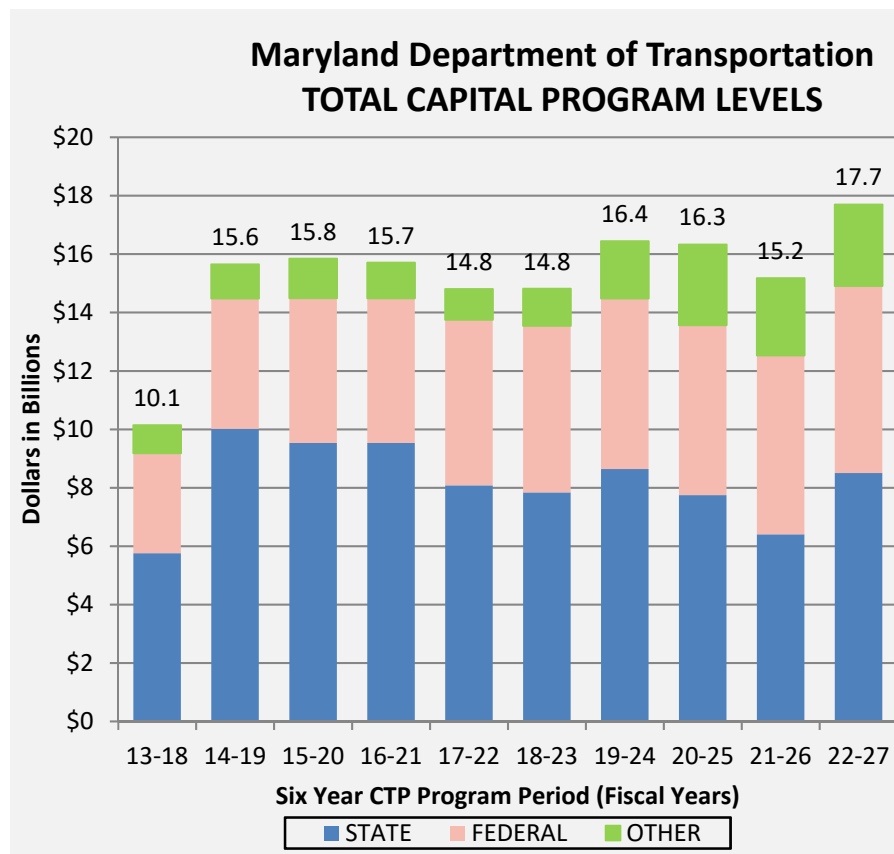
- Meets all federal and other legal mandates (e.g. Total Maximum Daily Load (TMDL) compliance, Positive Train Control (PTC), Federal Aviation Administration (FAA) regulations to maintain airport permits);
- Supports MDOT's program priorities and MTP goals (safety, system preservation, economic development, etc.);
- Meets all federal match requirements to maximize federal revenue sources;
- Supports the state's plans and objectives;
- Supports existing project commitments and upholds intergovernmental agreements;
- Is the single top priority within a local priority letter;
- Is consistent with local plans; and
- Is included in the regional Metropolitan Planning Organization (MPO) long-range plan (if the project is located within an MPO boundary).

CTP Development Process



FINANCING MARYLAND'S TRANSPORTATION PRIORITIES

In developing the CTP and establishing funding levels, MDOT must account for state and local economic growth, fluctuations in state transportation revenue, and allocations of federal funding. The state's Transportation Trust Fund supports MDOT investments through a dedicated account. The Transportation Trust Fund utilizes a variety of revenue sources, which provides funding that enables MDOT to address important capital and operating needs including congestion relief, safety improvements, and transit availability, as well as maintaining the competitiveness of the Port of Baltimore and BWI Marshall Airport.



State Revenue Projections

The economic challenges and uncertainty surrounding the COVID-19 global pandemic impacted virtually all MDOT operations and revenues. At the worst point, traffic volumes on Maryland roads, ridership across all MDOT MTA services, and passenger traffic at BWI Marshall Airport were all severely down. As more people become vaccinated and businesses return to more normal operations, MDOT has seen revenues gradually recover. In anticipation of that recovery, estimated state revenues for this Final FY 2022 – FY 2027 CTP are \$2.5 billion higher than the estimates for the previous Final CTP. Total projected revenues amount to \$32.2 billion for the six-year period. This estimate is based on the revenue sources used by MDOT and includes bond proceeds and federal funds that will be used for operating, capital and debt payment expenses.

Pertinent details are as follows:

- **Opening Balance:** MDOT increased its minimum fund balance policy to \$200 million in FY 2022 to accommodate working cash flow needs throughout the year.
- **Motor Fuel Tax:** This revenue is projected to be \$7.1 billion during the six-year period. As of July 1, 2021, the motor fuel tax rates were 36.1 cents per gallon gasoline and 36.85 cents per gallon diesel fuel, which is a 0.2 cents per gallon decline from the previous tax rate. The Consumer Price Index (CPI) effect is estimated to average 5.3 cents per gallon during the program period. The 5 percent sales and use tax equivalent rate effective July 1, 2021 is 9.0 cents per gallon. The rate is estimated to average 10.3 cents per gallon during the program period. This revenue estimate is up \$460 million from the estimate in the previous Final CTP, reflecting the anticipated recovery from the impacts of COVID-19.
- **Motor Vehicle Titling Tax:** This source is projected to yield \$6.3 billion. The titling tax of 6 percent of the fair market value of motor vehicles, less an allowance for trade-in vehicles, is applied to new and used vehicles sold and to vehicles of new residents. During the six-year planning period, vehicle sales, which declined at the peak of the global pandemic, are projected to recover and follow a normal business cycle around an underlying upward trend.

- **Motor Vehicle Registration/Miscellaneous, and Other Fees:** These fees are projected to generate \$4.0 billion. This forecast assumes revenues will increase an average of 1.5 percent every two-year cycle. Although the timing of revenues from this source has been delayed due to MDOT MVA branch closures and later re-opening by appointment, the overall revenue estimate remains essentially the same during the six-year period.
- **Corporate Income Tax:** The transportation share of corporate income tax revenues is estimated to be \$1.8 billion. MDOT receives 14.6 percent of the state's 8.25 percent corporate income tax revenues.
- **Federal Aid:** This source is projected to contribute \$8.0 billion for operating and capital programs. This amount does not include \$714.7 received directly by WMATA. The majority of federal aid is capital; although COVID-19 relief and recovery funds are more than doubling funds programmed for operating assistance in the six-year program. Since federal aid supports a significant portion of the capital program, a more detailed discussion of federal aid assumptions is presented in the next section of this summary.
- **Operating Revenues:** These revenues are projected to provide a six-year total of \$2.6 billion, with \$742 million from MDOT MTA, \$328 million from MDOT MPA, and \$1.5 billion from MDOT MAA. MDOT MTA revenues primarily include rail and bus fares, which are indexed to inflation. MDOT MPA revenues include terminal operations, the World Trade Center, and other Port-related revenues. MDOT MAA revenues include flight activities, rent and user fees, parking, airport concessions, and other aviation-related fees.
- **Bond Proceeds:** It is projected that \$1.7 billion of Consolidated Transportation Bonds will be sold in the six-year period. The level of bonds issued during the six-year period is determined by capital funding needs. This level of bonds is affordable within the financial parameters used by MDOT.
- **Other Sources:** The remaining sources are projected to provide \$746 million. These sources include investment income, reimbursements, the use of fund balances, and other miscellaneous revenues.

FEDERAL AID ASSUMPTIONS

The current federal authorization is the Infrastructure Investment and Jobs Act (IIJA) also known as the Bipartisan Infrastructure Law (BIL), which provides vital federal funding for highway, transit, and other multimodal projects. The IIJA was signed by President Biden November 15, 2021 and provides authorization for federal fiscal years 2022 through 2027 (FFY 2022- FFY 2027). This Act is more than the usual transportation authorization and much of the discretionary funding was both authorized and appropriated in the Act. The traditional transportation funding still needs FFY 2022 appropriations before it can be utilized. Currently the formula funds are being distributed based upon a continuing resolution of the FAST Act that expires February 18, 2022.



For FY 2022 through FY 2027, this CTP includes only a continuation of the FFY 21 level of funding from the FAST Act as we wait for the appropriations process to conclude and additional levels of funding. With the passage of the IIJA, the funding for MDOT SHA, MDOT MTA and MDOT MAA will increase about 20 percent and may be included in a supplemental budget depending on when final amounts are known.

Federal Stimulus Funding

In addition to federal relief funds provided directly to MTA, SHA, and MAA, MDOT received \$500 million in American Rescue Plan Act of 2021 (ARPA) funding through the state of Maryland. This funding was leveraged to preserve capital projects in the program as well as enable additional high priority projects to move forward. A majority of these funds were directed to critical system preservation needs. The MDOT SHA utilized funding to ensure that the MDOT SHA bridge and highway assets remain in a state of good repair. In addition to two major bridge preservation projects, a portion of these funds was applied to multiple highway resurfacing projects statewide, to include the use of diamond grinding, a preventative maintenance solution, as well as high friction surface treatment, which provides the highest skid resistance of any treatment used in the highway industry. These funds also enabled ongoing extensive resurfacing work being performed on the MDOT state highway network throughout at least five different counties over the next several years. The MDOT MTA was also able to preserve funding for state of good repair needs for bus, Metro, MARC and Light Rail facilities and systems as well as enable investments in a Zero Emission Bus fleet, dedicated bus lanes, safe access to bus stops, shelters and an investment in ADA goals. The MDOT MVA was able to preserve funding for critical preservation needs related to branch office buildings as well as Customer Connect upgrades.

The MDOT was able to restore funding to high priority projects impacted by budget constraints resulting from the COVID-19 global pandemic. The MDOT MAA was able to preserve funding for critical infrastructure projects such as the Airline Maintenance Facility Infrastructure as well as the North Cargo Fuel Tank Expansion. The MDOT MPA utilized funds to preserve ongoing projects contributing to the preservation of the 50-foot channel system into the Port of Baltimore, to include the expansion of the Masonville Dredged Material Containment Facility (DMCF). The COVID-19 global pandemic significantly impacted the Transportation Trust Fund revenues, and by effectively leveraging ARPA funds, MDOT was able to continue to provide critical services and invest in critical infrastructure needs.

Highways and Transit

Along with the relief and stimulus federal funds received by MDOT traditional federal funding comes from the Federal Highway Trust Fund (FHTF), which provides transportation investment for projects in the following areas: highways and transit; multimodal freight; safety and security; system preservation; bike and pedestrian; congestion mitigation; and electric vehicle infrastructure.

The CTP allocates these federal funds to projects in the program based on reasonable assumptions of authorization given the passage of the IIJA. MDOT expects to have \$731.8 million in highway formula funding and \$291.6 million in transit formula funding in FFY 2022 for MDOT projects. This is dependent on the passage of an FFY 2022 appropriations bill. The Purple Line received a commitment from the Federal Transit Administration for New Starts funding totaling \$900 million. The Purple Line also received an additional allocation of \$106.2 million in New Starts funding from ARPA.

Federal highway program funds authorized and apportioned to the states are subject to annual ceilings, which determine how much of the appropriated money can be obligated in any given year. This ceiling is referred to as Obligation Authority (OA) and is imposed by Congress annually in response to prevailing economic policy. Since FFY04, OA has ranged from 84 percent to 95 percent. The OA level received in FFY 2019 was 90.1 percent, in FFY20 was 90.6 percent and in FFY21 was 88.9 percent. This CTP assumes an OA level of 90 percent for FFY22 through FFY27.



Washington Metropolitan Area Transit Authority — WMATA

Based upon continuing the level of funding from the FAST Act, in FY22, WMATA anticipated receiving \$324.7 million in FTA formula grants and \$15.7 million in other federal grants (Congestion Mitigation and Air Quality) for bus and rail preservation activities. So far FFY22 funding of \$148.5 million is provided through the federal Continuing Resolution of the FAST Act. In total given the IIJA, WMATA expects to receive \$488.9 million in federal capital

funding in FY22 in addition to the \$625 million in Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (CRRSAA) federal relief funding it received to compensate for lost operating revenue. (NOTE: \$89 million of the \$714 million in CRRSAA Act relief funds apportioned to WMATA was distributed to the local transit operators in the WMATA service district.) Beginning in the third quarter of FY22, WMATA will begin utilizing relief funds received as a result of the ARPA, from which it will receive \$1.06 billion in operating cost assistance.

The MDOT's top priority regarding WMATA remains restoring the safety and reliability of the system. This is demonstrated through investments in safety and state of good repair. In 2018, the jurisdictions cooperated to create a new, dedicated capital funding source for WMATA totaling \$500 million annually, of which Maryland contributes \$167 million each year. In addition to this funding commitment, this CTP includes a total of \$300 million (\$50 million each year in FY22 through FY27) as Maryland's matching contribution required by federal legislation. To date, the signatory parties have fulfilled their promise by providing formula funds to match federal grants provided from FY10 through FY22.

Overall, WMATA's five-year capital budget is \$13.6 billion in FYs 2023 through 2027 without additional federal dedicated funding. This includes \$5.9 billion in state/local funding, \$5.6 billion in debt (including debt generated from bond sales utilizing the jurisdictional dedicated capital funding), \$2.1 billion from federal sources, and \$55 million in reimbursable funds to complete the extension of the Metrorail Silver Line.

Aviation

The FAA, through the Airport Improvement Program (AIP), is authorized to provide federal entitlement and discretionary funding for airport projects. The MDOT MAA estimates annual AIP entitlement funding is at least \$4.9 million for BWI Marshall Airport during the six-year period. The IIJA provides an additional \$25 million a year through a separate grant program with expanded project eligibility using only emplanements to distribute the funds. Traditional AIP Entitlement funding is calculated using enplanement and cargo-based formulas for BWI Marshall Airport and the amount reflects the 75% adjustment based on the airport's authority to collect a \$4.50 Passenger Facility Charges (PFC). The FAA Reauthorization Act of 2018 extended FAA authority to 2023.

In response to the pandemic, Congress enacted the Coronavirus Aid, Relief, and Economic Security (CARES) Act which allocated \$107.7 million in additional funding to Maryland airports, of which 82%, (\$87.8 million) went to BWI Marshall and Martin State airports (\$75.8 million for operating costs,

including appropriated debt service and \$12.6 million for capital costs). Additionally, MDOT MAA received \$21 million in CRRSAA funding (\$20M debt service and \$1M appropriated debt) and \$84 million in ARPA funding (\$80M of debt service, \$2M appropriated debt, \$2M for operating expenses).



In FFY19, MDOT MAA received \$9.9 million toward the reconstruction of Taxiway Z and in December 2019 received \$3.4 million of Supplemental AIP funding to Rehabilitate Taxiway Lighting & Reconstruct Taxiway F1 to meet EB75 standards. In FFY20, the combination of AIP and CARES provided 100% federal funding for the following projects: passenger boarding bridges on Concourse A (\$1.8 million); noise mitigation program initiation (\$0.7 million); and the reconstruction of Taxiway T Phase I (\$11.4 million). In FFY21, MDOT MAA received \$26M in grants (\$17.3 million for Taxiway F Phase 1), \$4.8 for Remote Transmitter Receiver (RTR), \$2.5M residential sound mitigation, \$670k for noise and \$1M for reimbursement of Concourse A/B and BHS CMAR expenses. The AIP also provided another \$29.8 million to other public use airports throughout Maryland.

Martin State Airport continues to receive its annual \$150,000 AIP entitlement funding, which is applied to eligible projects. The IIJA provided an additional entitlement funding amount of approximately \$763,000 a year. Several development projects at Martin are expected to become eligible for AIP discretionary funding pending a favorable finding on the ongoing programmatic Environmental Assessment (as required by the National Environmental Policy Act) that is anticipated to be complete in CY 2022.



In state FY 2021, MDOT MAA administered \$2.16 million to public-use airports across the state through the Statewide Aviation Grant Program. These grants support the flying public with airport improvement and infrastructure preservation projects, safety equipment acquisitions and environmental compliance activities. This state investment leveraged over \$33.08 million in FAA funds and \$1.02 million in airport owner investment. FAA funding is expected to provide \$15-\$20 million each year over the next six years. In addition, FAA allocated \$2.37 million to non-state-owned public-use airports as part of the CRRSAA, \$3.18 million for airport rescue grants and \$5.25 million for the first year of IIJA.

Port of Baltimore

Terminal security efforts continue to be enhanced with federal assistance through the Federal Emergency Management Agency's Port Security Grant Program. In August 2020, MDOT MPA was awarded nearly \$1.2 million in federal assistance to improve security at its terminals. The funding is being used to strengthen cyber security initiatives and closed-circuit television capabilities at the MDOT MPA's State-owned public terminals.

The MDOT MPA received approximately \$300,000 for resiliency, reduction of greenhouse gases and environmental related grants to support its efforts in being a good steward of our environment. The MDOT MPA expects to receive approximately \$5.0 million in dredging and environmental grants in FY 2022.

In 2020, USDOT announced that MDOT MPA was awarded a \$10 million grant through the Better Utilizing Investment to Leverage Development (BUILD) program that will allow MDOT MPA to make \$36.7 million in investments at Dundalk Marine Terminal to improve resiliency and make flood mitigation improvements. When the agreement between USDOT and MDOT MPA is

finalized, funds will be programmed into the CTP. After the agreement between USDOT and MDOT MPA is finalized, construction is scheduled to begin in FY 2023.

Announced by USDOT in July 2019, Maryland will receive \$125 million as part of the federal Infrastructure for Rebuilding America (INFRA) Grant Program. The funding will allow the state, in partnership with CSX, to increase clearance of the Howard Street Tunnel and bridges over the rail to allow for double-stack shipping containers. This will increase the number of containers handled by the Port of Baltimore and generate a significant number of new jobs.

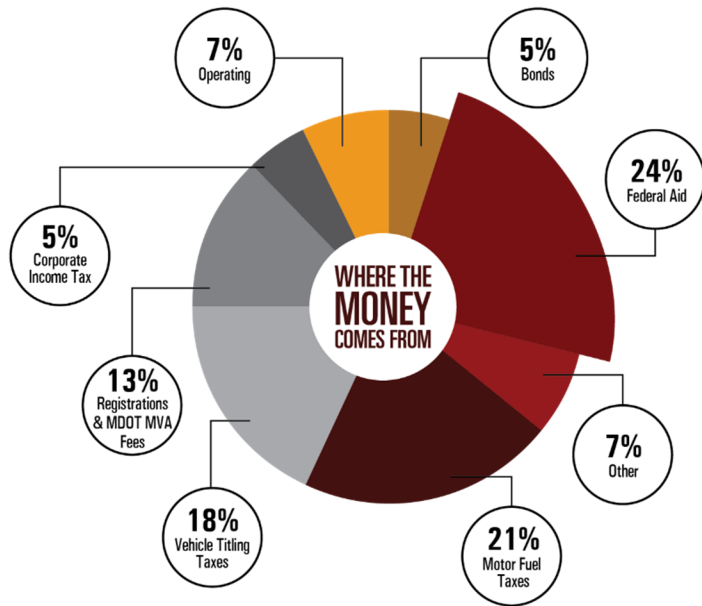
The MDOT MPA was awarded a BUILD Grant of \$6.6 million in December 2018 through the U.S. Department of Transportation to support Ports America Chesapeake, MDOT MPA's P3 partner, with the Seagirt Marine Terminal Berth 3 modernization project. Project construction began in August 2020 and, when completed, will increase capacity for ultra-large containerships and improve the nation's economic competitiveness by making the Port of Baltimore more efficient. The project includes adding a second 50-foot deep berth, landside improvements at the new berth, and dredging to widen and deepen the turning basin.



Through the IIJA the Port will be eligible to apply for additional Port Infrastructure Development Program grants. This expanded program has \$2.25 billion available over the next five years for port infrastructure and waterways.

WHERE THE MONEY COMES FROM...

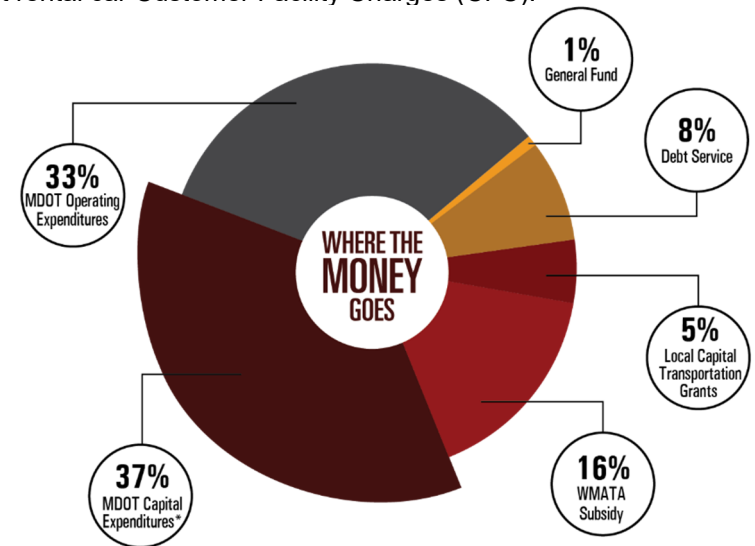
Maryland's transportation system is funded through several dedicated taxes and fees, federal aid, operating revenues, and bond sales, which are assigned to the Transportation Trust Fund. This fund is separate from the state's General Fund, which pays for most other state government operations and programs. MDOT's customers pay user fees for transportation infrastructure and services through motor fuel taxes, vehicle titling taxes, registration fees, operating revenues, and corporate income taxes. The motor fuel tax and vehicle titling tax are two of the largest sources of MDOT revenue. Operating revenues include transit fares and usage fees generated at the Port of Baltimore and BWI Marshall and Martin State Airports. In addition to collecting revenue within the state, Maryland also receives federal aid for its transportation program. These federal funds must be authorized by a congressional act. The United States Congress enacted federal surface transportation authorizing legislation as part of the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Act (BIL), in November 2021, which provided investment in transportation infrastructure through FFY27. There is appropriation legislation still pending in the House and Senate that will provide the yearly approval of the formula funding in the IIJA.



Total projected Trust Fund revenues for operating and capital amount to \$32.2 billion for the six-year period covered by this CTP. These amounts are based on the assumption that the economy will return to a moderate growth scenario during the next six years. MDOT maximizes its finances by leveraging them with bonds, discretionary grants and public-private partnerships.

WHERE THE MONEY GOES...

The MDOT program is fiscally constrained, meaning that the list of projects is tied to estimates of future revenue. The Transportation Trust Fund supports operation and maintenance of state transportation systems, administration, debt service, grants, and capital projects, as well as Maryland's portion of operating and capital subsidies for WMATA. A portion of these funds is directed for General Fund purposes, including environmental, fuel tax collection, and state police programs. Funding also is provided as capital grants to Maryland's counties and Baltimore City for local transportation needs. After operating costs, debt service, and local transportation grants, the remaining money goes toward funding capital projects. This document, Maryland's Final CTP, is the six-year capital budget for all state transportation projects. This Final FY 2022 – FY 2027 CTP totals \$17.7 billion, \$15.0 billion of which comes through the Transportation Trust Fund and \$2.7 billion from "Other" fund sources, including local contributions, WMATA direct funding, airport Passenger Facility Charges (PFC) fees, airport revenue bonds, and airport rental car Customer Facility Charges (CFC).



*Excluding WMATA

Planned Capital Expenditures

FY 2022-2027 FINAL CTP SUMMARY (\$ MILLIONS)						
TRANSPORTATION BUSINESS UNITS		STATE FUNDS	FEDERAL AID	OTHER*	TOTAL	PERCENT OF TOTAL
Service Modes	MDOT TSO	149.6	7.3	9.9	166.8	0.9
	MDOT MVA	121.7	0.0	0.0	121.7	0.7
	Sub-Total	271.3	7.3	9.9	288.5	1.6
Aviation	MDOT MAA **	282.9	86.1	527.3	896.3	5.1
Maritime	MDOT MPA	772.0	164.1	237.9	1,174.0	6.6
Transit	MDOT MTA	2,461.7	1,899.4	241.3	4,602.4	26.0
	WMATA	1,190.3	0.0	1,674.7	2,865.0	16.2
	Sub-Total	3,652.0	1,899.4	1,916.0	7,467.4	42.2
Roads and Bridges	MDOT SHA	1,832.5	4,250.0	95.9	6,178.4	34.9
	HUR	1,690.9	0.0	0.0	1,690.9	9.6
	Sub-Total	3,523.4	4,250.0	95.9	7,869.3	44.5
TOTAL		8,501.6	6,406.9	2,787.0	17,695.5	100.0

Note: Figures may not add perfectly due to rounding.

* Funds not received through the Transportation Trust Fund. Includes some funds from the Maryland Transportation Authority (MDTA), Special Transportation Project Revenue Bonds, and federal funds received directly by WMATA.

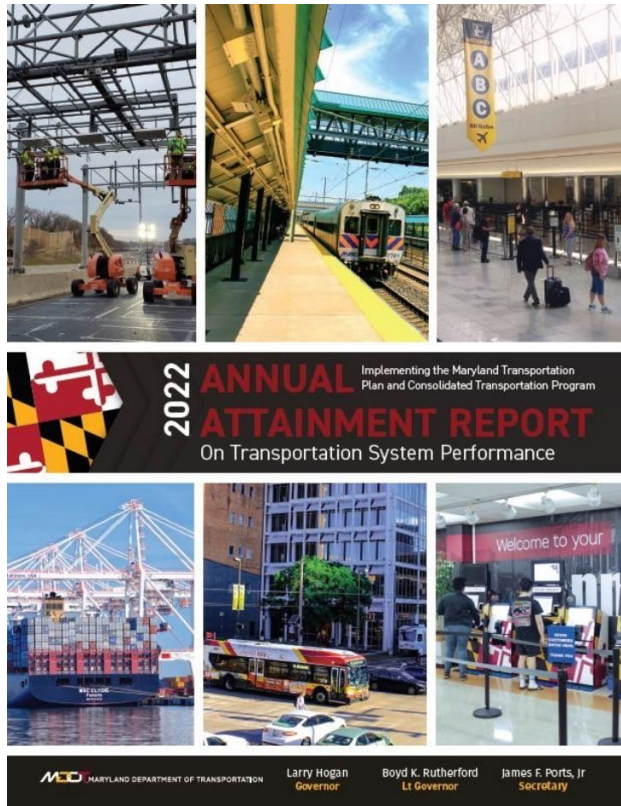
** Projects using non-trust fund financing sources, such as airport Passenger Facility Charges (PFC) fees, airport revenue bonds, and airport rental car Customer Facility Charges (CFC), are included in the total.

HUR: Highway User Revenue Capital Grants
MDOT TSO – Transportation Secretary's Office
MDOT MVA – Motor Vehicle Administration
MDOT MAA – Maryland Aviation Administration
MDOT MPA – Maryland Port Administration
MDOT MTA – Maryland Transit Administration
WMATA – Washington Metropolitan Area Transit Authority
MDOT SHA – State Highway Administration

EVALUATING OUR PERFORMANCE

Performance Driven

MDOT is a performance driven organization, assessing our transportation system performance through data before making decisions to plan and invest. This is done through the annual Attainment Report on Transportation System Performance, the annual Managing for Results and federal baseline performance measures.



To maintain the highest standards that our customers expect, we must understand where we are succeeding and where extra effort is needed. The Attainment Report provides us with the performance measure information we need to make those decisions. The annual CTP outlines where MDOT will be making investments in the coming years on our roads and highways, at the Port of Baltimore, in our transit systems, at BWI Marshall Airport and Martin State Airport, and all the various facilities that see thousands of people each

day. The Attainment Report lets us know the success of those investments and where we can continue to improve, because we want to ensure our dollars are having the greatest impact in improving the lives of Marylanders.

In 2000, the Maryland General Assembly passed a bill requiring MDOT to develop an Annual Attainment Report (AR) on Transportation System Performance. The main objectives of the AR are to do the following:

- Report on progress toward achieving the goals and objectives in the MTP and the CTP; and
- Establish performance indicators that quantify achievement of these objectives; and set performance targets.

The performance measures evolve and are updated periodically in a collaborative effort between the Secretary's Office, the Transportation Business Units, and, every 4-5 years, with an AR Advisory Committee. The performance measures were updated in 2019 using input from the AR Advisory Committee, based on the updated 2040 MTP Goals and Objectives (please visit mdot.maryland.gov/ARAC). The AR documents show MDOT is achieving its goals and objectives based on performance indicators and helps Maryland citizens assess improvements to its transportation system.

Since 1996, MDOT also has participated in the state's Managing for Results (MFR) effort as part of the budget process. MFR is a strategic planning, performance measurement, and budgeting process that emphasizes use of resources to achieve measurable results, accountability, efficiency, and continuous improvement in state government programs.

Through coordination with MPOs and adjacent state DOTs, MDOT developed baseline performance measures and targets for the MAP-21/FAST Act federal safety, infrastructure condition, and system performance measures:

- Pavement condition of the Interstate System and on the remainder of the National Highway System (NHS).
- Travel time reliability on the Interstate System and the remainder of the NHS.
- Bridge condition on the NHS.
- Fatalities and serious injuries (both number and rate per vehicle miles traveled) on all public roads.
- Traffic congestion.
- On-road mobile source emissions.
- Reliability of truck travel time on the Interstate System.

MDOT will continue to work with USDOT, the regional MPOs, and other stakeholders to ensure we demonstrate the effectiveness of MDOT's programs.

HOW TO READ THIS DOCUMENT

For each major project, there is a Project Information Form (PIF). Each PIF contains a description of the project, its status, its justification, its compliance status with smart growth, and a brief explanation of how it fits with the goals of the MTP. It also shows any significant change in the project since the previous year's CTP, as well as the funding for the project during the six-year cycle. The information in each PIF is meant to provide a general description of the project along with some specifics such as alignments, status of environmental permitting, or alternatives under study.

Funding Phases

Planning – Once a proposal is funded for project planning, detailed studies and analyses are conducted to evaluate the need for the project, to establish the scope and location of proposed transportation facilities and to obtain environmental approvals.

Engineering – Engineering projects involve detailed environmental studies and preliminary and final design. Having been through a detailed analysis based on the information from the Project Planning phase, these projects are candidates for future addition to the Construction Program.

Right-of-Way – This funding is to provide the necessary land for the project or to protect corridors for future projects.

Utilities – This funding is to pay for utility relocations that are required by the project that are the responsibility of MDOT.

Construction – This last stage includes the costs of actually building the designed facility.

Total – This is the sum of any funding shown for Planning, Engineering, Right-of-Way, and Construction.

Federal-Aid – This is the amount of the total that will utilize federal funding.

State (Special) – This is the funding coming from the Transportation Trust Fund that is a Special fund in the Governor's budget.

Other – This is funding from sources that are not federal or special. This funding could be from counties, the general fund, airport bond issuances, or private entities.

Construction does not begin until a project receives necessary environmental permits, the state meets air and water quality requirements, and the contracts are bid. PIFs can include specific facilities and corridor studies that examine multimodal solutions to transportation needs.

The CTP also contains information on minor projects. These projects are smaller in scope and cost. They also can include road resurfacing, safety improvements, and sidewalk and bicycle trail construction.

POTENTIAL FUNDING SOURCE:						<input checked="" type="checkbox"/> SPECIAL	<input checked="" type="checkbox"/> FEDERAL	<input type="checkbox"/> GENERAL	<input type="checkbox"/> OTHER		
PHASE	TOTAL					PROJECTED CASH REQUIREMENTS				SIX	BALANCE
	ESTIMATED	EXPENDED	EXPENDED	CURRENT	BUDGET	FOR PLANNING PURPOSES ONLY				YEAR	TO
	COST	THRU	IN	YEAR	YEAR	...2023...	...2024...	...2025...	...2026...	TOTAL	COMPLETE
	(\$000)	2020	2020	2021	2022						
Planning	34,402	16,216	6,796	3,035	1,651	2,500	2,000	4,000	5,000	18,186	0
Engineering	20,920	8,920	4,345	3,000	2,000	1,000	1,000	2,000	3,000	12,000	0
Right-of-way	0	0	0	0	0	0	0	0	0	0	0
Utilities	2,022	34	34	141	141	106	100	500	1,000	1,988	0
Construction	49,639	7,126	2,621	9,806	5,239	2,802	2,819	8,601	13,246	42,513	0
Total	106,983	32,296	13,796	15,982	9,031	6,408	5,919	15,101	22,246	74,687	0
Federal-Aid	55,016	12,533	4,387	14,028	8,261	3,502	2,960	7,610	6,123	42,483	0
Special	51,966	19,762	9,409	1,954	771	2,906	2,960	7,491	16,123	32,204	0
Other										0	