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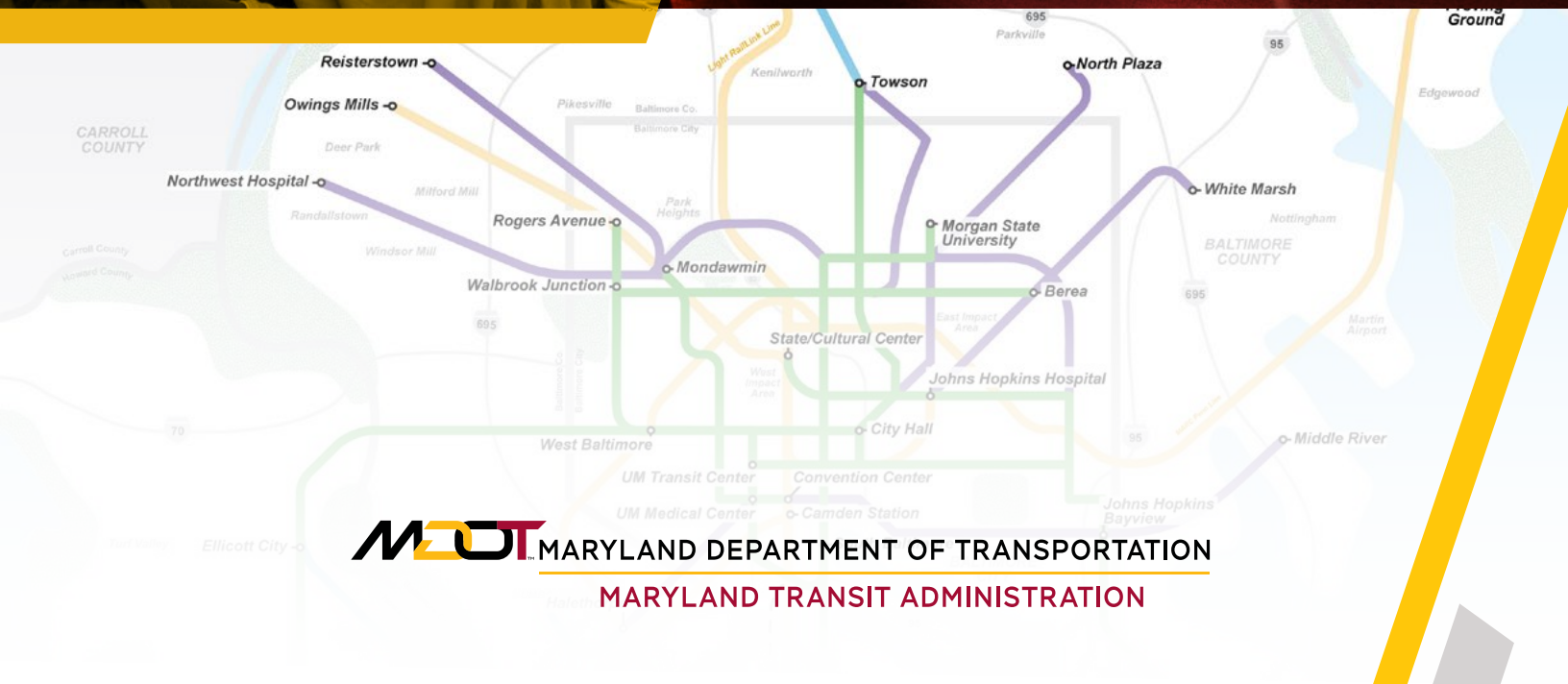
Connecting Our Future

A Regional Transit Plan for Central Maryland



MDOT MARYLAND DEPARTMENT OF TRANSPORTATION

MARYLAND TRANSIT ADMINISTRATION

Statement from the Maryland Department of Transportation

We recognize the impact the COVID-19 public health crisis has had on all Marylanders and understand the difficult adjustments everyone has made in their daily lives. At MDOT, employees at all of our transportation business units are on the front lines of a statewide transportation system performing vital service to allow essential employees to get to work; ensuring their safety and the safety of all Marylanders is our top priority.

While many of our planning and project development operations have shifted to teleworking in accordance with State guidelines, MDOT remains committed to advancing our efforts associated with the Central Maryland Regional Transit Plan (CMRTP) during the COVID-19 emergency, as we monitor and adapt to this evolving situation.

Understanding that the full economic impact of COVID-19 is yet to be realized, it is critical that the Department keeps projects moving and that we, together, plan for a comprehensive and connected transportation network that is ready to deliver when Marylanders and our economy move to recovery and look to the future. It is our collective responsibility to build a transportation network that will serve generations to come, while also ensuring the continued solvency of our intermodal network.

With that in mind, the Department is releasing the Draft CMRTP for public comment and feedback through June 18, 2020. To better facilitate public comment and inform the Final CMRTP, the MDOT Maryland Transit Administration is adjusting the public outreach plan to accommodate Governor Hogan's stay-at-home order:

- MDOT MTA has created a project website that allows for online commenting
- Virtual "office hours" will be available on the website where project staff will be available to answer questions
- Online meetings with advocacy groups are being scheduled
- Email information and links to the project website are being sent to neighborhood and community groups

The next Commission meeting is scheduled for June 18, 2020. If necessary, that meeting will be held virtually. This will be determined by June 1, 2020.

Rest assured that as we work remotely behind the scenes, we will strive to ensure your voices are heard and your questions are answered while our teams across MDOT focus both on limiting the spread of the novel coronavirus and moving our CMRTP to the next phase of development.

Letter from the Administrator

Dear Maryland Residents,

The Maryland Department of Transportation Maryland Transit Administration (MDOT MTA) has been providing transit services for the State for over 50 years since its inception as the Metropolitan Transit Authority in 1969. Today, MDOT MTA operates the 12th largest multimodal transit system in the country with over 250,000 daily riders, 6 transit modes, and paratransit service, while providing support to locally operated transit systems throughout Maryland. MDOT MTA is committed to continually improving our customers' transit experience. To this end, we have adopted the following vision statement: *To provide safe, efficient, and reliable transit across Maryland with world-class customer service.*

Over the past two years, MDOT MTA has worked collaboratively with the Central Maryland Regional Transit Plan Commission, the Baltimore Metropolitan Council, and the public to develop a comprehensive twenty-five-year vision for transit in the Central Maryland Region: Baltimore City and Anne Arundel, Baltimore, Harford, and Howard Counties.

The Central Maryland Regional Transit Plan (RTP) presents goals, objectives, and initiatives to enhance transit service, support the economy, and reduce our environmental impact. Through coordinated planning and investment from the region's transit agencies and the local jurisdictions, we have an opportunity to create an interconnected transit network that is more reliable, convenient, and efficient.

Our region is growing and changing. This plan presents a broad array of methods and tools to help us move forward in a way that serves everyone – from specific, targeted local actions to long-term and large-scale projects that will meet the changing needs of the region. As the Plan is implemented, it will transform how people travel in Central Maryland.

This Plan is a living document that will be updated every five years. We will continue our commitment to work collaboratively with our stakeholders to respond to changing conditions, technologies, policies, and priorities.

I am excited to share the Regional Transit Plan with you, and look forward to our continued collaboration with our partners and the public as we achieve this shared vision of mobility, vitality, and prosperity for the Central Maryland Region.

Sincerely,

Kevin Quinn

Kevin Quinn
MDOT MTA Administrator

Acknowledgments

Regional Transit Plan Commission

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Special thanks to the Baltimore Metropolitan Council and its Executive Director, Mike Kelly.

Partnerships with the Community

The development of *Connecting Our Future: A Regional Transit Plan for Central Maryland* would not have been possible without the committed participation of the community members of Anne Arundel County, Baltimore City, Baltimore County, Harford County, and Howard County. Our special thanks to all the residents, business owners, and members of the public who shared their thoughts and ideas with the study team and participated in the surveys and public engagement activities.

Contents

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What is the Central Maryland Regional Transit Plan?

The Central Maryland Regional Transit Plan (RTP) is a plan for improving public transportation in the region over the next 25 years. The Plan approaches regional mobility comprehensively, recognizing that people travel throughout Central Maryland in their daily activities. The Central Maryland Region covered in this plan includes Anne Arundel County, Baltimore City, Baltimore County, Harford County, and Howard County.

The Regional Transit Plan is a guide for the Maryland Department of Transportation Maryland Transit Administration (MDOT MTA), local transit operators, and local jurisdictions to focus planning efforts and investment on addressing service coverage gaps and areas of need.

Introduction

With a goal of connecting people to where they need to go, this plan looks at which areas can be served by transit, how to improve the existing transit services, and where new services could be appropriate.

The Plan incorporates both existing and expected travel patterns and accommodates the planned growth of population and jobs anticipated in the next 25 years. The region is changing; consequently, the Plan will be updated every five years to remain responsive and relevant to these changes.

The Plan provides a framework for moving forward, a roadmap of where we want to go, and strategies for how to get there.

The region is large, covering over 2,100 square miles, 2.55 million residents, and 1.24 million jobs. It includes dense urban centers, suburban residential development, newer town centers, rural communities, and farm land.

While the Plan identifies a broad array of strategies, many of these require additional research and analysis before they could be implemented, and will require coordination with local jurisdictions and other partners. To this end, this plan does not include:

- In-depth planning, design, or engineering
- Detailed cost estimates or the identification of funding options for any of the initatives or strategies.

Background

In 2018, Governor Hogan signed legislation from the Maryland General Assembly that directed MDOT MTA to prepare a regional transit plan for Central Maryland in consultation with an 11-member Commission and the executive staff of the Baltimore Metropolitan Council. Legislation required that the Plan identify goals for the region's transit over the next 25 years, as well as corridors for additional service or investment. This plan meets the transit needs of the core service area: Anne Arundel County, Baltimore City, Baltimore County, Harford County, and Howard County. It addresses traditional transit (buses and trains) and explores Shared Mobility options and new technology.

Listen *Learn what is important to the public, stakeholders, and the Commission*

Study Existing Conditions *Determine the conditions facing MDOT MTA and the Locally Operated Transit System (LOTS), as well as national trends*

Research Peers *Study what other transit agencies and jurisdictions are doing and how Central Maryland compares*

Develop Goals and Objectives *In collaboration with the Commission establish overarching goals that will guide the future of transit in the region*

Explore and Evaluate Strategies *Identify the most effective and efficient means to achieve the Plan's goals and objectives*

Create the Plan *Synthesize what has been learned and prioritize strategies to achieve the Plan's goals and objectives*

Planning Process

The creation of a successful plan depends on the involvement of a broad range of interested parties. The Regional Transit Plan was developed with the participation of the public, the Regional Transit Plan Commission, the Baltimore Metropolitan Council, a working group of the Locally Operated Transit Systems (LOTS), and the local jurisdictions, and technical experts.

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How the Public and Stakeholders were Engaged in the Planning Process

The Regional Transit Plan was developed and shaped with valuable input from over 1,500 interactions with members of the public throughout the region, plus thousands of online surveys. The Project Team also met with a broad array of stakeholders, including student councils, large employers, economic development groups, transit operators, and advocacy groups. Additionally, transit providers in the region consistently provided a rich source of insight and experience. Taken together, the input offered through this extensive engagement effort makes the Regional Transit Plan stronger and more reflective of the diverse perspectives in our region.

Outreach Events

60+ Pop-Ups and Presentations

10 Regional Open Houses

9 Commission Meetings

5 Inter-Agency Meetings

3,426 Survey Responses

What We Heard from the Public

Throughout these conversations across the Central Maryland Region, there were a number of themes that were mentioned frequently.

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Why Transit Matters

Public transit benefits everyone — even those who do not ride. It supports communities and residents by spurring economic development, improving quality of life, providing access to opportunity, and promoting sustainable lifestyles. In 2018, Americans took 9.9 billion trips on public transportation.

- **Transit provides economic benefits:** Transit helps individuals and communities prosper. Every $1 invested in public transit generates $4 in economic returns; every $1 billion invested supports and creates over 50,000 jobs.
- **Transit reduces gasoline consumption and the carbon footprint:** Public transit saves the U.S. 4.2 billion gallons of gasoline annually. Communities that invest in transit reduce the nation's carbon emissions by 37 million metric tons annually.
- **Transit saves money:** A household can save nearly $10,000 a year by taking transit and living with one less car.
- **Transit is a safer way to travel:** Traveling by public transportation is 10 times safer per mile than by car, reducing the chance of being in a crash by more than 90%.

Transit Today

Why Transit Matters in Central Maryland

People - Public transit provides over 100 million trips in the region each year. Approximately 170,000 workers living in the region depend on transit to access their workplaces. Transit also provides significant value to riders and non-riders alike, including reducing congestion and improving quality of life: Less time spent traveling offers more time for family and leisure.

Jobs - Businesses rely on employees, customers, and service providers having easy and convenient travel options. This is especially true for populations with no or limited access to cars, for whom the availability of transit may determine their ability to participate in the workforce and the local economy, and will impact their quality of life.

What we heard: *"I love transit because it makes my life EASIER!!"*

The Economy - Transit is a significant asset for our regional economy, as 57% of Core Bus, Metro Subway, and Light Rail trips are work trips and 96% of MARC Train and Commuter Bus trips are work trips.

The Environment – The transportation sector recently surpassed the electricity generation sector as the largest source of greenhouse gas emissions in the U.S. Thoughtful investment in our transportation system, including in our transit system, will be critical to reducing Maryland's emissions in the future.

In 2018, there were over 100 million trips made on MDOT MTA and the LOTS.

Bus Network Redesign

Under the direction of Governor Hogan, MDOT MTA invested $135 million to overhaul and rebrand the transit system as BaltimoreLink between 2015 and 2017. Prior to this network redesign, MDOT MTA's bus system had many antiquated routes that did not serve current job centers, and trips lengths were too long to deliver reliable service. MDOT MTA's bus system now delivers more efficient and reliable service by creating a network of high-frequency routes with stronger connections between all MDOT MTA modes.

Access - Forty percent of the region's 2.55 million residents live within 1/2 mile of a train station or 1/4 mile of a bus stop, and 50% of the region's 1.24 million jobs are accessible by bus or rail. By 2045, the region is forecast to grow by nearly 300,000 people and 440,000 jobs. Much of the growth will be in areas not currently served by transit.

Transit is also critical for non-work trips, such as going shopping, reaching medical appointments and educational facilities. Shopping and medical appointments make up 11% and 8% of midday trips on the bus network. Trips to education facilities account for 8% of morning trips on the bus network.

Paratransit - Paratransit provides vital mobility to people with disabilities in the region. Over three million paratransit trips were made on MDOT MTA in 2019.

Central Maryland Region Transit Overview

Central Maryland has seven transit providers, including MDOT MTA and LOTS. MDOT MTA is the largest operator, providing 94% of the transit largest trips in the region.

Listed below are the six modes of transit that MDOT MTA provides in the Central Maryland Region.

Core Bus includes three types of service: City Bus, Local Bus, and Express Bus.

Metro Subway has 15 miles of heavy-rail service from Owings Mills in Baltimore County to Johns Hopkins in Baltimore City.

Light Rail has 30 miles of service from Hunt Valley in Baltimore County to Glen Burnie in Anne Arundel County.

Mobility Paratransit and Call-a-Ride provide complementary paratransit service in the region.

MARC Commuter Rail Penn and Camden lines are in the Central Maryland Region.

Commuter Bus has 22 routes with stops in Central Maryland.

The following are the Locally Operated Transit Systems (LOTS) in the region. They provide bus and/or paratransit services:

Annapolis Transit provides local bus service within the City of Annapolis.

Anne Arundel County Office of Transportation provides local bus service within Anne Arundel County.

Baltimore CountyRide provides paratransit service and services to rural residents within Baltimore County.

Charm City Circulator is local bus service within the City of Baltimore. Charm City Circulator also provides water taxi service.

Harford Transit LINK is local bus service in Harford County and southwestern Cecil County.

Regional Transportation Agency of Central Maryland (RTA) is local bus service in Howard, Anne Arundel, and northern Prince George's Counties.

What we heard: *"As the population ages, it will be critical to ensure that seniors can get around and be part of the economy."*

What we heard: *"Developing around transit leads to broad economic benefits and promotes fiscal health of Maryland and its cities and counties."*

Some transit agencies are defying national trends and are growing fixed-route ridership. These agencies are

- Redesigning bus networks to minimize duplication
- Implementing new service and new investments, including:
  - Building new rail lines
  - Creating transit priority infrastructure
  - Expanding bus service
- Promoting transit through free-fare zones or periods

The Changing Transit Landscape

The world we live in is changing at an increasingly fast pace. Transit providers must be agile and ready to adapt to these changes.

Technology is providing new tools to manage how we get around with real-time information and smart phone apps to inform us of options on how to get where we are going, what it will cost, and when we will get there. Many transit systems have apps to pay fares, making transit easier to use. Mobility-as-a-Service (MaaS) provides customers with the freedom and flexibility in transportation by fully integrating payment for transit and Shared Mobility services.

Shared Mobility is an umbrella term encompassing bike and scooter share, carshare, transportation network companies (TNCs) such as Uber and Lyft, ridesharing, and ridesplitting. These new models and modes are being adopted rapidly and providing more options to the traveling public.

Cities are simultaneously attracting young millennials and older "empty nesters," as both groups are drawn to urban living with jobs and entertainment nearby, and the potential to live without owning a car. Young people are waiting longer to get their driver's licenses, preferring to bike, scoot, walk, car share, or take transit.

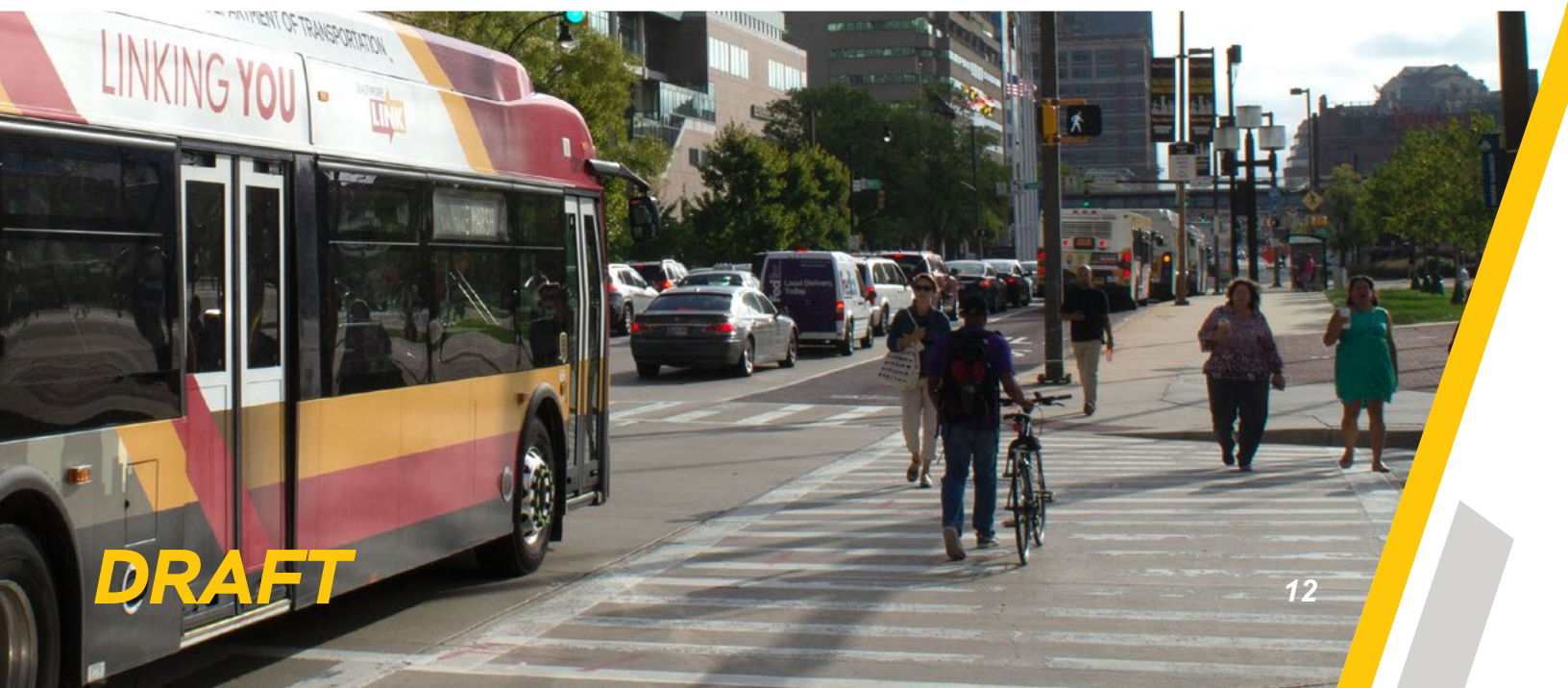
The population is aging, resulting in a larger group who no longer drives. There is an increased need for healthcare workers to access jobs that serve this population.

Concerns about the environment and climate change are strong and are shaping where and how people chose to live. Transit is a valuable tool in reducing emissions, as transportation is the source of 29% of greenhouse gas emissions in the U.S.

National Trends in Transit

Transit providers nationwide are seeing additional, related trends:

- Bus ridership is falling in 31 out of the top 35 major U.S. cities. Bus trips decreased from 5.4 billion in 2012 to 4.6 billion in 2018.
- Rail transit ridership is growing nationally, increasing from 4.7 billion trips in 2012 to 5.1 billion in 2018.
- The senior population is growing, which may increase transit needs, particularly paratransit.
- The demand for paratransit is increasing steadily, as are its costs.
- Gas prices have fallen from $3.68 per gallon in 2012 to $2.35 in 2019. Generally, transit ridership falls as gas prices decrease and car trips increase.
- Trips provided by TNCs have grown exponentially and are expected to surpass annual bus trips in 2019 with 6.7 billion trips nationwide.



What we heard: *"We need to make Maryland a desirable place to live: improving and expanding transit is the way to do that!"*

What we heard: *"Access to educational institutions is very important since not everyone can afford to live on campus or have a personal car."*

Opportunities for transit are out there. Our challenge is figuring out how to take advantage of them.

Trends in Central Maryland

Population Growth and Job Access

- Population and job growth are projected to mainly occur outside the Beltway, away from the areas which are best served by transit today.
- The region has an opportunity to take advantage of existing transit investments by enabling and designing new development that is integrated with transit, making transit easier and more convenient.
- There are current transportation corridors where new or improved transit options could help ease congestion and provide access to jobs and opportunities.
- The 65-and-older group is one of the fastest growing segments of the population. For example, in 2020, one in four residents in Baltimore County will be a senior citizen.

Paratransit

- The rate of paratransit growth in the region is outpacing the national rate.
- Annual Mobility Paratransit trips increased 91% between 2010 and 2018.

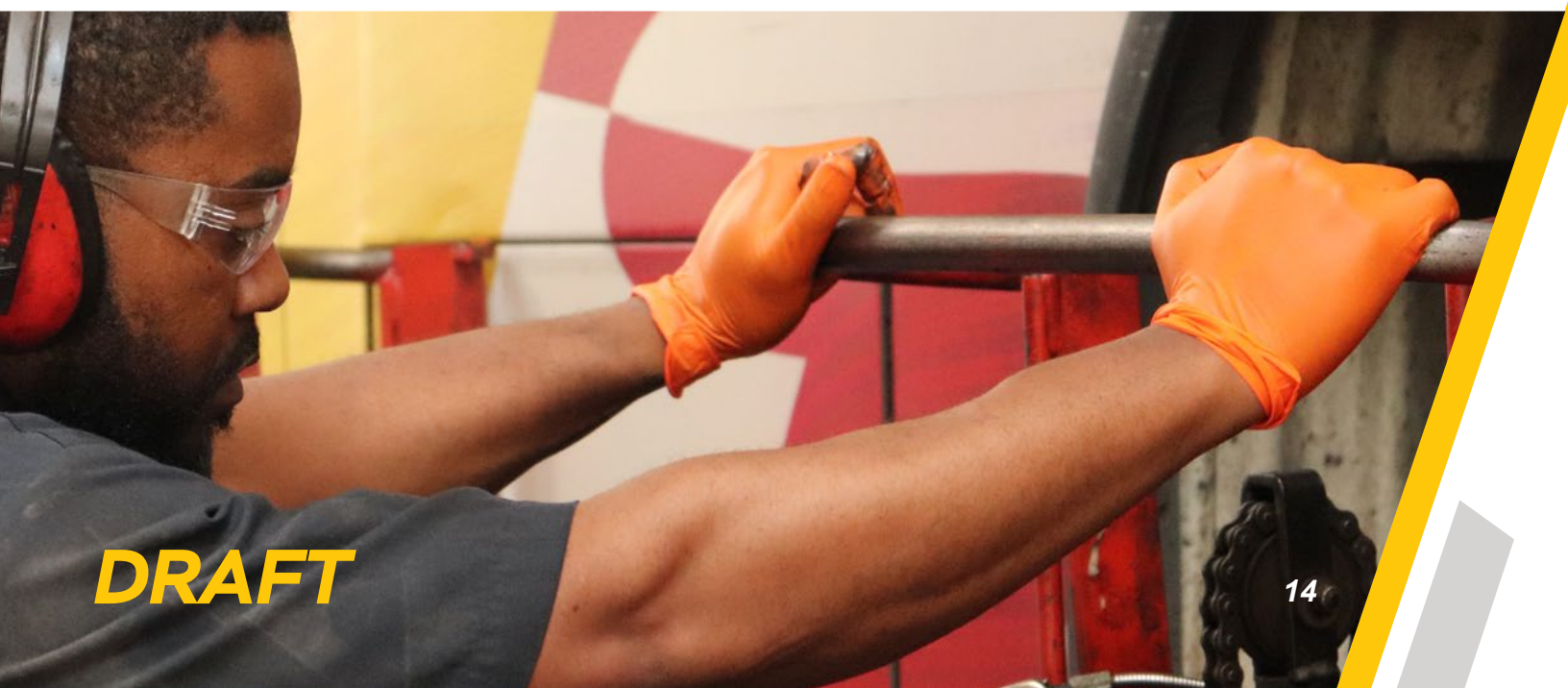
- Paratransit trips represent a large percentage of operating expenses of transit agencies due to the very high costs per trip compared to other transit modes.

State of Good Repair

- Like other legacy transit systems, MDOT MTA invests a substantial percentage of its capital funds to maintain its existing assets in a State of Good Repair (SGR).
- The State of Maryland Provides a dedicated funding source for transit in the region; however, expanded service increases costs for maintaining assets in a state of good repair. The state looks at taking a balanced approach to addressing the transportation needs of citizens.
- MDOT MTA's 2019 Capital Needs Inventory (CNI) outlined the system's needs from 2019-2028 to meet current and future service demands and system performance goals. With 10-year total needs reaching $5.7 billion and a total funding forecast of $3.7 billion, an estimated funding gap of just over $2 billion remains to fund all SGR and identified enhancement needs.

Ridership

- MDOT MTA local bus ridership has been trending down since 2015, but has shown recent growth, particularly on weekends, after the implementation of the Core Bus service redesign:
  - Average Saturday bus ridership up 3%.
  - Average Sunday ridership is up 13%.
- MDOT MTA Commuter Bus ridership has trended slowly downward since 2012.
- Metro Subway and Light Rail ridership have fallen 42% and 16%, respectively, since 2012. The region needs to identify and address the causes of this to leverage the benefits of these investments.



Goals

Three overarching goals for the Regional Transit Plan were developed in a collaborative process by the Regional Transit Plan Commission and MDOT MTA. Public input, collected through surveys, pop-up events, and open houses, informed the process. The goals are general guidelines that explain what this Plan should achieve.

Goal: Improve connectivity and integration of existing and future transit services

- Reduce or eliminate gaps in current transit service.
- Prioritize connections to economic opportunities.
- Prioritize existing and emerging services, corridors, and nodes for new or enhanced services.
- Increase regional collaboration.

Goals and Objectives

Goal: Optimize existing transit services

- Advance equitable access to jobs, education, and services.
- Promote travel choice, affordability, reduce delay, and reduce emissions.
- Improve service quality, customer experience, and safety on existing services.
- Ensure the region meaningfully integrates new transit innovations and technology.

Goal: Enhance fiscal sustainability

- Identify transit needs.
- Identify funding and financing opportunities and innovations to deliver this Plan
- Improve cost efficiency of transit services.
- Maintain assets at defined condition targets.

Objectives

The three goals of the Regional Transit Plan are long-term global visions. To attain these goals, the Plan has six fundamental objectives:

- Provide Faster, More Reliable Service
- Grow Ridership
- Increase Access to Jobs and Opportunities
- Improve the Customer Experience
- Be Equitable
- Prepare for the Future

It is critical to note that no single objective is more important than another and these objectives are interconnected, so that success in one is often dependent upon the success of another.

Initiatives

Successfully achieving each objective relies on multiple actions and elements of the Plan. The Plan proposes three initiatives:

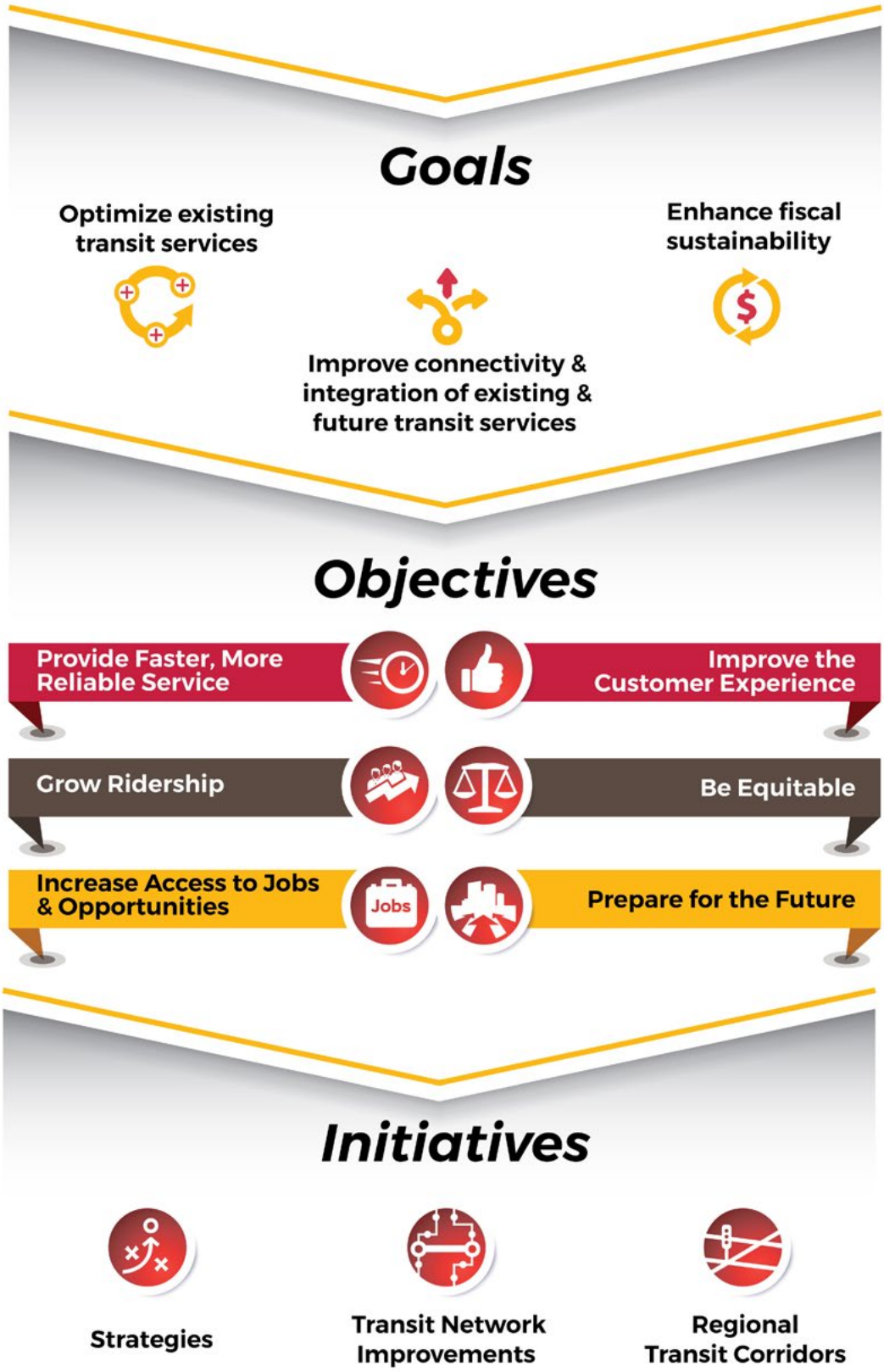
- Strategies
- Transit Network Improvements
- Regional Transit Corridors

These initiatives work together to achieve the Plan's objectives. This will move the Central Maryland Region forward to accomplish the three overarching goals.

The ***Strategies*** are specific actions that MDOT MTA and the LOTS can take in order to achieve the six objectives. Some strategies are specific, targeted improvements to improve the speed and reliability of existing transit. Others are long-term endeavors to coordinate transit improvements with other regional policy priorities, such as land use and environmental goals. The strategies are aligned under the six Plan objectives.

There are areas in the region that have transit today but demonstrate a need for additional ***Transit Network Improvements***. These are smaller improvements to local or express transit service already operating in the region.

The Regional Transit Plan has identified a collection of potential new ***Regional Transit Corridors***. These corridors will be key areas to focus on in the next 25 years. Some corridors are ready for new transit improvements or service in the near future; others may not be ready for quite some time.


Goals
Optimize existing transit services
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Objectives
Provide Faster, More Reliable Service
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Grow Ridership
Be Equitable
Increase Access to Jobs & Opportunities
Jobs
Prepare for the Future
Initiatives
Strategies
Transit Network Improvements
Regional Transit Corridors

4

The Plan identifies a broad array of strategies, which were derived from previous analysis, stakeholder input, public engagement, and Commission suggestions. These strategies will require coordination and collaboration across stakeholders, including MDOT MTA and the LOTS. Depending upon the specific strategy, a single stakeholder may be able to make substantive progress; however, in many cases, an integrated or collaborative approach will achieve greater results.

Partnerships across the public and private sectors; as well as at the local, state, and regional level; will offer the greatest opportunity for meaningful progress in the Central Maryland Region. These strategies are organized by the objective they support most directly.

Strategies

Objectives

Objective: Provide Faster, More Reliable Service

Provide faster and more reliable service to both serve existing customers and to attract new riders.

What We Found

Investments in infrastructure can help speed up transit. *Traffic congestion and traffic signals cause delay on many bus routes in the region. Building dedicated bus lanes and programming traffic signals to prioritize moving transit vehicles has reduced bus travel times and improved reliability. Rebuilding bus stops to meet the edge of the travel lane or the height of the bus floor reduces delays related to pulling in and out of traffic and boarding passengers.*

Allowing customers to pay in advance *and board using all doors reduces the amount of time at stops. Installing ticket vending machines at more transit stops, fitting more fare card readers to transit vehicles, and adopting mobile payment apps are important components of off-board fare collection.*

Technology is transforming transit operations. *GPS equipment on vehicles enables operators and transit agencies to efficiently communicate issues or problems and develop solutions when there are delays. This information can also quickly be shared with riders through real-time transit information at stops or through smartphone apps.*

What We Heard

"I would use public transportation more if it was more reliable and took less time."

"What we need more than anything is reliable transit."

"To rely on public transit for work, it must be reliable."

"Faster ways of travel would be great!"

"We need more dedicated bus lanes."

Targets: Monitoring Progress

- Increase MDOT MTA's ***on-time performance for Core Bus*** to ***85%*** by ***2025***
- Establish ***on-time performance reporting for all agencies*** in the region
- By ***2025***, all transit vehicles accurately reporting ***real-time data***

Improve Speed and Reliability of All Transit Services

Provide real-time passenger information online, at major transit hubs, rail stations, and on transit vehicles

Maintain transit vehicles and facilities in a State of Good Repair

Improve Bus Speed and Reliability

Implement targeted investments, such as:

- Dedicated bus lanes
- Transit signal prioritization
- Traffic signal replacement and retiming
- Curb management
- Level-boarding
- All-door boarding
- Off-board fare collection

Introduce limited-stop service where appropriate

Ensure consistent enforcement of bus lane and bus stop violations

Coordinate with local jurisdictions to minimize the impact of construction projects on bus services

When existing buses are retired, replace with low-floor vehicles

Improve Light Rail Speed and Reliability

Improve travel time on Howard Street with transit signal priority

Realign tracks on Howard Street

When existing rail vehicles are retired, replace with low-floor vehicles and retrofit stations for level-boarding

Minimize service disruptions through erosion control, flood mitigation, and tree trimming

Improve Metro Subway Speed and Reliability

Manage service disruptions to minimize impact to customers, including flood mitigation and resiliency plans

Improve MARC Speed and Reliability

Support Amtrak construction of a new Baltimore and Potomac (B&P) Tunnel on the MARC Penn Line

Construct a fourth track between Odenton and Halethorpe on the MARC Penn Line

Improve Commuter Bus Speed and Reliability

Implement targeted investments, such as:

- Dedicated bus lanes or bus-on-shoulder
- Transit signal priority
- Curb management
- Off-board fare collection


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Objective: Grow Ridership

Grow ridership by providing transit services that people want to use and that take them where and when they want to go.

What We Found

Trends in ridership vary by mode. *An increasing number of people are traveling by MARC Train and Mobility/Paratransit while Metro Subway and Light Rail ridership has decreased.*

Some regions are growing transit ridership. *Metropolitan areas experiencing rapid population growth are increasing transit service to expand housing options and reduce costs of living. Ridership in other regions is also being driven upward by investments focused on increasing speed and capacity in densely populated, well-traveled corridors.*

Opportunities to leverage existing rail lines. *Improved pedestrian and bicycle access and new infill stations would improve access to existing rail lines in places where many people already live and work. Transit-oriented development could focus regional growth near existing transit assets. MARC Train service extensions to the north and south could better connect workers to growing job centers outside the region.*

What We Heard

"MARC hours also need to be extended to provide service to more than normal work day hours, especially weekends. Being able to use rail to attend Ravens and Orioles games would be excellent."

"Expand existing rail connections and propose new ones."

"Commit to Transit-Oriented Development around Metro and Light Rail stations."

"Invest in maintaining & improving bus & train service."

Targets: Monitoring Progress

- Increase ***system-wide ridership*** in the region by ***10%*** by ***2025***

Grow Ridership for all Transit Services

- Expand education and outreach to employers, universities, and the Maryland Commuter Tax Credit for businesses offering transit benefits
- Encourage employers to subsidize transit at equal levels as parking
- Pursue transit-oriented development at Light Rail, Metro Subway, and MARC Train stations (see map on page 28).
- Use social media to share information, services, events, and news with citizens and businesses

Grow Bus Ridership

- Partner with employers and large-scale development to connect residents to job centers
- Plan and construct transit hubs and inter-modal transfer facilities
- Expand the Frequent Transit Network

Grow Light Rail Ridership

- Form a Task Force of MDOT MTA, state agencies, city and county agencies, business representatives, community representatives, and riders to focus on growing ridership on Light Rail
- Identify needed investments to complete and open the Light Rail station at Texas in the Cockeysville area
- Connect Light Rail to Metro Subway at Lexington Market and State Center through better signage and wayfinding, and other physical infrastructure investments
- Expand Light Rail service hours and frequency, including Sunday service

Grow Metro Subway Ridership

- Form a Task Force of MDOT MTA, state agencies, city and county agencies, business representatives, community representatives and riders to focus on growing ridership on Metro Subway
- Improve signage and wayfinding in and around stations
- Connect Metro Subway to Light Rail at Lexington Market and State Center through better signage and wayfinding, and other physical infrastructure investments

Grow Commuter Bus Ridership

- Develop a park-and-ride lot plan to grow the capacity and access to Commuter Bus service
- Partner with employers and large-scale development to connect residents to job centers

Grow MARC Ridership

- Work with host railroads to accommodate growing ridership
- Replace West Baltimore Station in coordination with Baltimore and Potomac (B&P) Tunnel realignment
- Study extending MARC service to L'Enfant Plaza in Washington, D.C., and Northern Virginia
- Identify bus infrastructure improvements at MARC stations
- Study closing the commuter rail gap to the north and providing connectivity to SEPTA in Pennsylvania
- Explore opening additional stations where indicated by demand

How we identified TOD opportunities

The potential locations for TOD included in this map are not exhaustive, but rather responsive to opportunities identified by local jurisdictions, as well as input from the public and subject-matter experts. As the region grows and changes and additional opportunities arise, the list of potential locations may evolve over time.

Potential Locations for Transit-Oriented Development

Transit-oriented development, or TOD, *means a mix of shops, homes, offices and entertainment located near a transit station. Dense, walkable, mixed-use development near transit attracts people and creates vibrant, connected communities. TOD maximizes transit ridership and is one of the most effective ways to make the most of an investment already spent on transit*

Legend

Existing Corridor

Other Regional Projects

Existing station, stop, or transfer point

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Objective: Increase Access to Jobs and Opportunities

Increase access to jobs, services, and opportunities by identifying and addressing existing service and infrastructure gaps.

What We Found

Growth is projected for areas not served by transit.

In the next 25 years, the Central Maryland Region is expected to grow by 300,000 people and 440,000 jobs. Around half of the growth is projected to be in areas not currently served by transit and likely not at density to support transit. Plans for growth could be better aligned with existing or planned transit.

Pedestrian access to transit varies significantly throughout region. *Most transit trips begin and end with a pedestrian or bicycle trip. Access to our region's transit stations varies significantly, with residents and workplaces located outside of the urban core lacking good pedestrian and bicycle connectivity, limiting access to transit.*

The transit experience is door to door. *Rider experience beyond the vehicle and the service matters, and as such, partnerships with local jurisdictions, businesses, Departments of Transportation and Public Works are critical to making transit successful.*

What We Heard

"All students should have reliable, safe, and inexpensive public transportation to school."

"I find myself stuck in a bind as I look for a new job: can a bus take me there?"

"Let Marylanders be productive on the job, and not arrive at work exhausted after stressful car-dependent commutes."

"We should avoid building sprawled parking lots and ensure all new development has safe sidewalks and bike access."

Targets: Monitoring Progress

- ***60%*** of ***region's residents will live*** within ¼-mile of a ***bus stop*** or ½-mile of a ***rail station*** by ***2045***
- ***70%*** of the ***region's jobs*** will be within ¼-mile of a ***bus stop*** or ½-mile of a ***rail station*** by ***2045***

Improve First/Last Mile Access

Improve conditions to create safer, more comfortable pedestrian and bicycle experiences, including wider sidewalks with greater physical separation from motor vehicle traffic
Provide bike racks on all transit vehicles in the region
Integrate Shared Mobility options (e.g., microtransit, scootershare, bikeshare, carshare, and rideshare) to complement existing services
At high transit transfer locations, coordinate signal timing to provide longer pedestrian crossing times

Facilitate Transfers

Co-locate transit stations and stops of different routes and modes to minimize walking between transfers
Coordinate schedules of regional transit providers
Improve wayfinding and signage
Implement consistent transfer fare policies across transit providers
Establish a connection between the MARC Penn and Camden Lines

Strengthen Transit-Served Areas

Leverage transit investments by promoting TOD and appropriate growth and revitalization in transit-served areas
Improve coordination between transportation planning, land-use decisions, housing availability, and employment opportunities
Coordinate transportation investment decisions by partnering with the Departments of Commerce, Economic Development, Planning, and other organizations; referencing state, local, and community-driven growth and development plans
Ensure that new development is transit-supportive
Concentrate transit investments in locally and state-designated growth areas to sustain and revitalize existing communities
Implement policies that support transit, such as incenting businesses to choose locations that are accessible by transit and allowing higher-density infill development
Implement Complete Streets policies to enable safe access for all users, regardless of age, ability, or mode

Objective: Improve the Customer Experience

Improve the customer experience by providing transportation services that are safe, easy to use, and comfortable.

What We Found

Customers want safety and cleanliness. *Security cameras with visible video monitors and other noticeable security improvements are popular with transit customers. Cleanliness could be improved on transit vehicles and at stations and stops to improve the experience of using transit and its public image.*

The region's transit is fragmented. *People are discouraged from traveling across the region by transit stops, schedules, and fares that are not coordinated between the region's transit providers.*

Information is power. *The expansion of real-time information has empowered customers to choose the best transportation option at any given moment. Transit providers are increasingly able to provide targeted, helpful information about service changes and disruptions using mobile apps, text messages, and electronic signage so customers can change plans as needed to make the most efficient trip.*

What We Heard

"Improve the rider experience with shelters, benches, clean bus stops."

"Make the service safer at all hours."

"Subways, light rail, train and bus must be integrated and have easy transfers where they cross."

"We need to find ways to simplify fares around the region, especially for those of us that change modes or services"

Targets: Monitoring Progress

- Implement a ***common fare platform*** for all transit providers in the region by ***2025***
- Increase MDOT MTA ***customer survey satisfaction*** rating by ***10%***
- Establish ***customer satisfaction rating*** for ***LOTS***
- Maintain MDOT MTA's standing as ***one of the safest transit systems*** out of the ***top 12*** U.S. transit agencies

Streamline Trip Planning and Fare Payment

- Implement an integrated payment system for all transit providers
- Establish fare structures that are easy to understand
- Expand fare payment options for all transit providers, including paratransit
- Include information on first-last mile options in trip planning tools and on signage and wayfinding
- Integrate transit and Shared Mobility trip planning, including Transportation Network Companies, micromobility, ridematching, and demand-response transit

Implement family-friendly polices to facilitate the use of transit by customers traveling with children

- Implement family-friendly fare policies that provide discounted or free fares for children, depending on age
- Accommodate strollers on transit vehicles, as feasible
- Transition to low floor vehicles to expedite passengers boarding and exiting transit vehicles

Enhance the Station/Stop Environment

- Work with partners to reduce and eliminate trash along routes and to maintain cleanliness of stations, stops, and rights-of-way
- Identify locations near transit that would benefit from improvements to lighting, sidewalks, ADA treatments, crosswalks, and other pedestrian access improvements
- Provide underground cellular service on Metro Subway

✚ Promote Safety & Security on Transit Vehicles and at Stops and Stations

- Complete installation of closed-circuit television (CCTV) at all rail stations and transit hubs and on all transit vehicles
- Apply Crime Prevention Through Environmental Design (CPTED) principles into the design of stations and stops
- Maintain MDOT MTA's standing as one of the safest transit system out of the top 12 U.S. transit agencies
- Improve interactions between operators and customers and identify actions to reduce assaults on operators
- Develop a regional plan for using transit to respond and recover from emergencies (security threats and natural disasters)
- Eliminate all at-grade pedestrian crossings on MARC service
- Enhance the Martin State Airport MARC station by eliminating at-grade passenger boarding
- Install new flashing light signals at all rail-highway crossings

Objective: Be Equitable

Provide equitable transit access to jobs, services, and other destinations in a just and fair manner, ensuring all users' needs are met.

What We Found

The population is aging. *The 65-and-older group is one of the fastest growing segments of the U.S. populations, and that is no different in the Central Maryland region. The senior population is expected to increase by 33% over the next 25 years, which may increase transit demand in certain areas.*

Access for all. *Most transit stops in the region are currently not accessible for people with disabilities because sidewalks and ramps do not meet American with Disabilities Act (ADA) standards.*

Transit is Critical for Low-Income and Zero-Car Households. *Access to transit is particularly important for low-income households and households without a car. Currently, approximately 59 percent of the region's low-income population has access to transit, while 74 percent of households without a car have access to transit.*

Targets: Monitoring Progress

- Increase the percent of ***stops and stations that are ADA accessible*** by ***25%*** every ***10*** years
- Reach and maintain ***on-time performance for MDOT MTA paratransit*** service to ***95%*** across the region by ***2025***
- Increase the percent of ***low-income population*** that has access to transit to ***70%*** by ***2045***
- Increase the percent of ***households*** with no car that have ***access to transit*** to ***80%*** by ***2045***

What We Heard

"There are not enough bike trails and sidewalks connecting public transit to housing."

"Having transit connections could be the defining difference between having a job or not being able to support your family."

"Improving disabled access to transit is important. Improving the reliability of paratransit service and turning it into an on-demand service is paramount."

"Intentionally focusing on increasing equity in funding transportation is essential."

"Transit gives seniors and people with disabilities more freedom."

"As the population ages, it will be critical to ensure that seniors can get around and be part of the economy."

Integrate Equity in Transit Planning and Service Provision

- Ensure the benefits and burdens of transit projects are shared equitably, considering race, gender, and income disparities
- Ensure there is good transit service to grocery stores, medical facilities, and educational institutions
- Actively pursue partnerships with non-profit, philanthropic, and workforce development organizations to ensure access to transit for their constituents
- Invest in technology that allows more fare payment options (fare capping)

Improve the Paratransit Trip

- Maintain vehicles and facilities in a State of Good Repair
- Implement electronic fare collection
- Increase subscription trips
- Implement trip-by-trip eligibility
- Synchronize paratransit span of service with local bus service
- Improve trip scheduling
- Improve coordination with non-emergency medical transportation providers
- Incorporate disability sensitivity training for front-line transit employees
- Incorporate travel training programs for customers

Improve Transit Accessibility

- Make stops and stations ADA-accessible
- Support operating policies that enable year-round, obstacle-free (e.g., snow, construction, scooters) access to transit facilities
- Replace all high-floor/lift-equipped fixed-route transit vehicles with low-floor designs
- Work with state and local Departments of Aging to identify the transit needs of older adults
- Identify opportunities for funding and partnerships to meet the transit needs of older adults
- Coordinate with human services organizations, Centers for Independent Living and organizations that work with persons with disabilities to expand access to transit
- Educate social service providers on available transit options, including non-emergency medical transportation
- Pilot potential Shared Mobility alternatives to provide cost-effective options
- Implement solutions to improve access to transit for low-income households and households without access to a private vehicle
- Explore shared mobility solutions to address access issues for low-income individuals

Objective: Prepare for the Future

Prepare for the future by mitigating and adapting to climate change, enhancing the financial stability of transit services, and embracing emerging technologies.

What We Found

Workforce needs are changing. *New tools to improve transit planning and operations require enhanced skills in information technology. Federal requirements are placing increased importance on asset management. Transit providers also face challenges with recruiting and retaining operators as the existing workforce ages.*

Transit is an essential tool in environmental sustainability. *Maryland has set a goal to reduce greenhouse gas emissions by 40% by 2030. Increased availability of zero-emission transit vehicles offers opportunities to increase trips using more energy-efficient vehicles.*

Transit in the region needs ongoing reinvestment. *SGR reinvestment maintains the quality and safety needed for good customer service. Transit systems across the country and in the region are experiencing operating and capital costs that are growing faster than inflation. Strengthening and forging public and private partnerships can enable the region to fund and provide quality transit to its residents.*

Shared Mobility services offer unprecedented choice. *Many residents use multiple modes of transportation. Access to these services can be combined with transit through unified fares and subscription services such as Mobility-as-a-Service. Many regions are developing Shared Mobility hubs where Shared Mobility services are available to make first/last-mile connections at transit stations.*

What We Heard

"Bus and rail are the heart of any urban ecosystem."

"Transit lets us create more sustainable communities."

"Transit produces less pollution and cleaner air and is a great way to combat climate change."

"We need to create accessible roadways that accommodate other forms of transportation (buses, bikes, scooters, etc.) so we can all more effectively travel."

Targets: Monitoring Progress

- Achieve majority ***zero-emission vehicle fleet*** by ***2045***
- Increase ***percent of people traveling by transit*** in the region to ***15%*** by ***2045***
- Implement a ***CAV pilot project*** by ***2025***

Include Environmental Sustainability in Transit Planning and Provision

- Use sustainable and resilient design and construction practices to reduce the risk from extreme weather events
- Maximize the use of green infrastructure to meet stormwater requirements
- Implement waste minimization strategies for the public and within maintenance facilities (e.g. recycling)
- Transition to majority zero-emission vehicles by 2045
- Ensure that facilities have been adapted for zero-emissions readiness
- Install Electric Vehicle (EV) charging devices at parking lots along the Metro Subway, Light Rail, MARC, and Commuter Bus system

Prepare for Emerging and Future Technology

- Monitor and evaluate new and emerging technologies for opportunities to enhance transit mobility
- Implement a connected and automated vehicle (CAV) pilot project, collaborating with the CAV workgroup
- Prepare all transit providers for Mobility-as-a-Service (MaaS)
- Assess curbside management practices and policies
- Identify and develop mobility hubs (where walking, biking, transit, and Shared Mobility come together to better connect transit to origins/destinations)

Prepare the Transit Workforce for the Future

- Conduct a skills and software needs assessment for all transit providers
- Create training programs to equip the transit workforce with needed skills
- Create a workforce pipeline for transit vehicle operators and mechanics
- Partner with local colleges and educational institutions for internships and apprenticeships
- Deploy new technologies, tools, and software to help transit workers plan and deliver better quality, safe transit service
- Improve fleet planning, facilities planning, service planning, spatial analysis, and scheduling capabilities for the LOTS

Enhance Fiscal Sustainability

- Work with businesses, military installations, colleges/schools, and medical campuses to coordinate transit services
- Partner with employers to make transit more affordable and convenient to employees
- Expand commuter transportation options through the Commuter Choice Maryland program
- Identify opportunities to partner with employers on infrastructure improvements
- Rehabilitate, replace, and service critical assets on time
- Incorporate asset lifecycle costs into programming, planning, and design decisions
- Develop regional policies to incorporate transit provisions into development review
- Explore potential jurisdictional and regional funding opportunities
- Maximize federal transportation funds by encouraging matching contributions from local jurisdictions and private sector entities that stand to benefit from transit projects
- Explore new cost-efficient and value capture practices, including public-private partnerships, alternative delivery methods, and Transit Tax Increment Financing (TIF)


Touch & Go Ticket Center
DRAFT

5

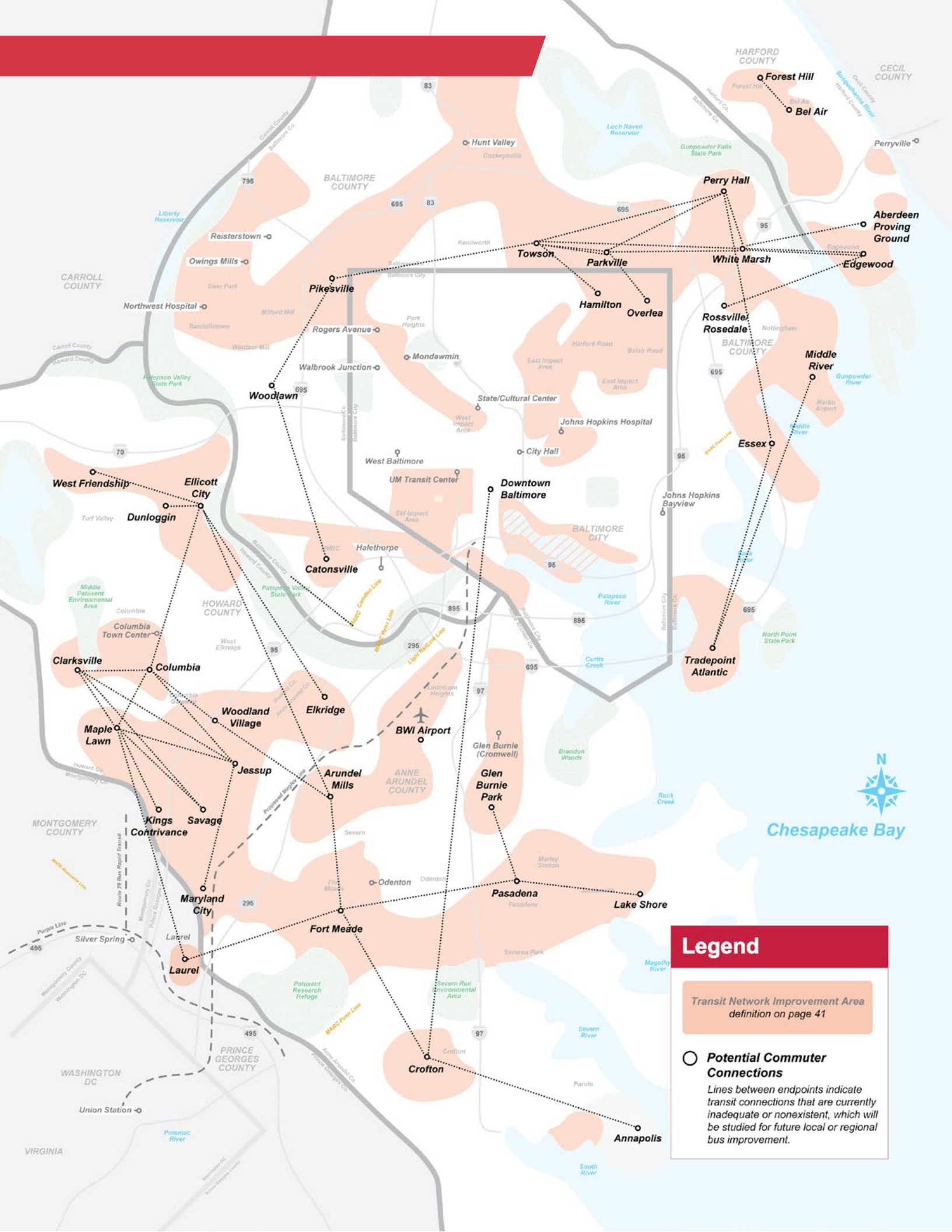
Transit Network Improvement areas are specific areas in the Central Maryland Region that have a demonstrated need for improvements to existing or new localized or express transit service. The accomplishment of the Plan's objectives depends on these improvements as well as the other Initiatives.

To identify the geographic areas that will need improved transit, MDOT MTA asked the following questions:

- Where are jobs, medical centers, schools, and shops located?
- Where are people traveling today?
- Which of the existing routes carry the most passengers?
- Where are jobs today, and where will they be in the future?
- Where do transit riders live?
- Where will people live in 25 years?
- What are the priority investments for local governments?
- How and when should those investments occur?

Transit Network Improvements

DRAFT


HARFORD COUNTY
CECIL COUNTY
Forest Hill
Bel Air
Perryville
Hunt Valley
Cockeysville
Loch Raven Reservoir
Gunpowder Falls State Park
BALTIMORE COUNTY
Perry Hall
Aberdeen Proving Ground
Liberty Reservoir
Reisterstown
Owings Mills
Towson
Parkville
White Marsh
Edgewood
CARROLL COUNTY
Pikesville
Hamilton
Overlea
Northwest Hospital
Rossville/ Rosedale
Rogers Avenue
Mondawmin
Middle River
Walbrook Junction
Woodlawn
State/Cultural Center
Johns Hopkins Hospital
Essex
West Baltimore
City Hall
West Friendship
Ellicott City
UM Transit Center
Downtown Baltimore
Johns Hopkins Bayview
Dunloggin
BALTIMORE CITY
Halethorpe
Catonsville
HOWARD COUNTY
Columbia Town Center
Clarksville
Columbia
Tradepoint Atlantic
Elkridge
Woodland Village
BWI Airport
Maple Lawn
Glen Burnie (Cromwell)
Jessup
Arundel Mills
ANNE ARUNDEL COUNTY
Glen Burnie Park
Kings Contrivance
Savage
MONTGOMERY COUNTY
Chesapeake Bay
Odenton
Pasadena
Lake Shore
Maryland City
Fort Meade
Silver Spring
Laurel
PRINCE GEORGES COUNTY
Crofton
WASHINGTON DC
Union Station
Annapolis
VIRGINIA
Legend
Transit Network Improvement Area
definition on page 41
Potential Commuter Connections
Lines between endpoints indicate transit connections that are currently inadequate or nonexistent, which will be studied for future local or regional bus improvement.

The Transit Network Improvements in this chapter were developed based on analyses of the existing conditions and future needs, public and stakeholder input, and suggestions from the Commission.

The four types of Transit Network Improvements are described below.

The locations identified for these improvements are discussed in detail in the Transit Network Improvements and Regional Transit Corridors Technical Report, available on the Regional Transit Plan website, www.rtp.mta.maryland.gov.

Expanded Existing or New Fixed-Route Service

Development of Small Area Plans, or Studies of Shared Mobility or Microtransit

Improvements to Existing Rail Corridors

Creation and Enhancement of Transit Hubs

Expand Existing or New Fixed-Route Transit Service

In some areas, there is a demand for additional service that does not meet the criteria of a Regional Transit Corridor. The service could be some or all of the following:

- Additional service on existing transit routes, such as:
  - Longer hours of operation
  - More frequent service
  - Expanded days of service, such as weekend service
- New local or express transit routes

Many of the areas have been already identified in existing transit plans.

Develop Small Area Transit Plans or Investigate Shared Mobility or Microtransit Solutions

Some areas need a more detailed local transit study and the development of a plan specific to that area. A Small Area Transit Plan would include an evaluation of:

- Existing transit route alignments and levels of service
- New transit route needs
- Campus/community circulation
- Pedestrian/bike connectivity to transit
- Opportunities for employer or major stakeholder funding for non-traditional fixed-route service

Some areas in the region demonstrated a need for transit but might not be able to support traditional fixed-route transit, typically because commercial/residential areas are too spread out.

These areas are recommended to have Shared Mobility or microtransit solutions studied and/or piloted.

Improve Existing Rail Corridors

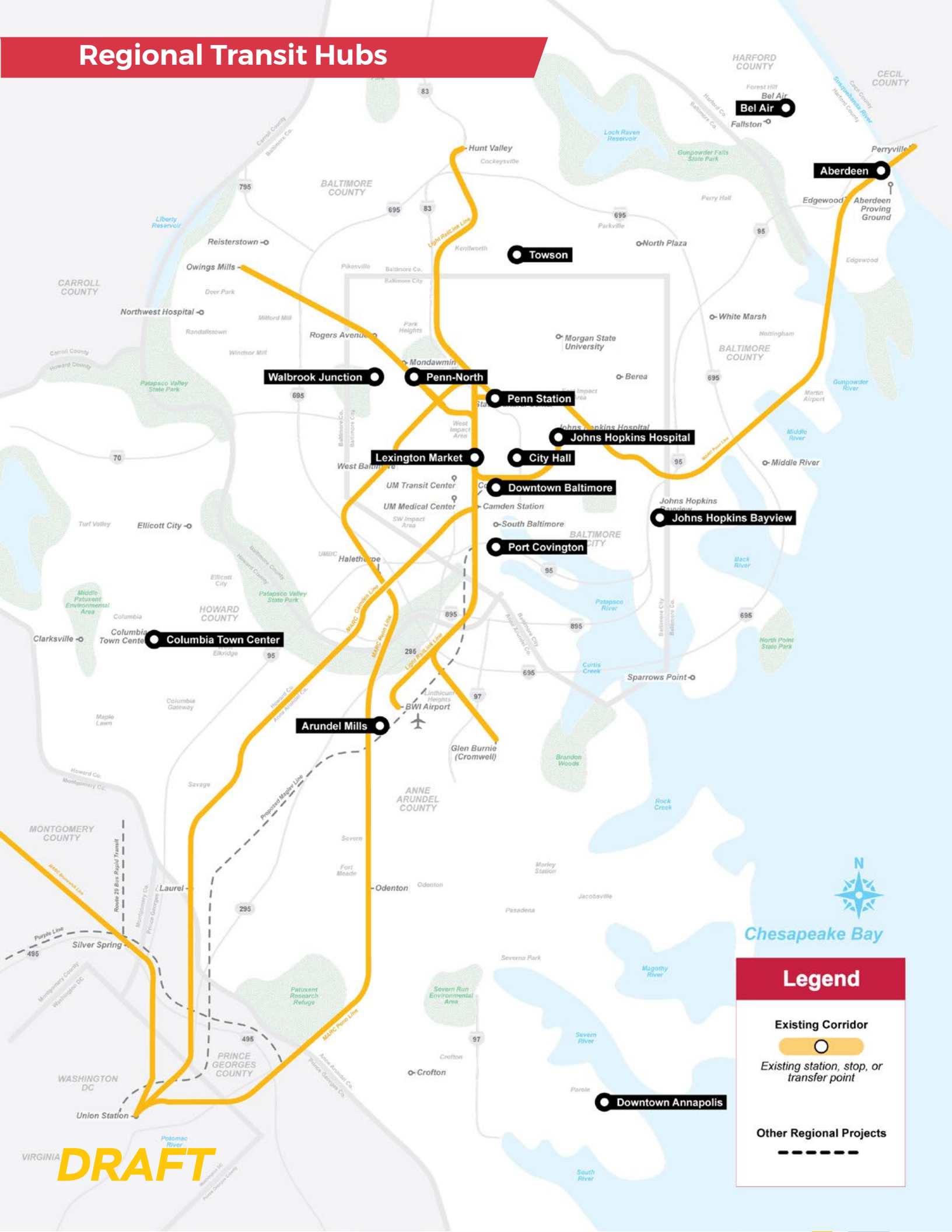
This Plan also proposes targeted improvements to existing rail corridors. Rail corridors require substantial investment to build, so leveraging these corridors to maximize ridership is both cost-effective and prudent. These recommended improvements are also listed in the Strategies.

Create or Enhance Transit Hubs

Transit is most effective when it works as a robust network, allowing riders to transfer between lines and providers to take full advantage of the services available. Transit hubs are important for both transit passengers and transit operators. Well-situated and well-designed transit hubs can significantly improve one of the most inconvenient parts of a transit trip for passengers: transferring from one system or vehicle to another.

Potential transit hubs in the region have been identified based upon existing and project travel demand in locations in which multiple modes, routes, or transit providers intersection. These locations are identified on the following page. Implementation of these hubs will ease transfers throughout the region.

Regional Transit Hubs



Transit Network Improvements by Jurisdiction

The following pages present targeted strategies to improve transit in each of the five Central Maryland jurisdictions.

ANNE ARUNDEL COUNTY

Improvements to Fixed-Route Services

Area Name	Peak	Off Peak	Weekend
Arundel Mills	✓	✓	✓
Crofton	✓	✓	✓
Fort Meade	✓	✓	
Glen Burnie		✓	✓
Maryland City	✓	✓	✓
Parole (Annapolis Mall)	✓	✓	✓
Severn	✓	✓	✓
Woodcrest (Glen Burnie)	✓	✓	

New Local and Express Transit Routes

Area Name	Type of Service	Link Destination / Need
Arundel Mills	Local or Express Bus	Fort Meade, Ellicott City
Crofton	Local or Express Bus	Points north to Glen Burnie and Baltimore; Annapolis
Fort Meade	Local Bus	Laurel, Crofton, Arundel Mills; Internal campus circulation needs
Woodcrest (Glen Burnie)	Local Bus	Community circulation needs

Small Area Plans and Shared Mobility / Microtransit

Area Name	Small Area Plan Study	Shared Mobility / Microtransit Solutions
Fort Meade	✓	✓
Glen Burnie		✓
Pasadena		✓
Annapolis		✓

Improvements to Existing Rail Corridors

- Construct a fourth track between Odenton and Halethorpe on the MARC Penn Line
- Remove at-grade crossings on the MARC Camden Line

Transit Hubs

- Arundel Mills
- Downtown Annapolis

Transit-Oriented Development

- BWI Business District
- BWI Rail Station
- Glen Burnie
- Odenton

BALTIMORE CITY

Improvements to Fixed-Route Services

Area Name	Peak	Off Peak	Weekend
Brooklyn	✓	✓	✓
Cherry Hill	✓	✓	✓
East Impact Area	✓	✓	✓
Inner Harbor		✓	✓
Park Heights Impact Area	✓	✓	✓
Southwest Impact Area	✓	✓	✓
West Impact Area	✓	✓	✓

These four Impact Areas are defined by Baltimore City Department of Housing and Community Development.

New Local and Express Transit Routes

Area Name	Type of Service	Link Destination / Need
Inner Harbor	Ferry	Possible additional ferry connections from South Baltimore to Inner Harbor, Harbor East, Fells Point, and Canton
Belair Road (Overlea, Putty Hill, Perry Hall)	Local Bus	Crosstown service to connect east and west neighborhoods (Hamilton, Parkville, Towson, Rosedale) and arterial transit routes
Harford Road (Hamilton, Parkville)	Local Bus	Crosstown service to connect east and west neighborhoods (Perry Hall, Putty Hill, Towson, Rosedale) and arterial transit routes
Woodcrest (Glen Burnie)	Local Bus	Community circulation needs

Small Area Plans and Shared Mobility / Microtransit

Area Name	Small Area Plan Study	Shared Mobility / Microtransit Solutions
Inner Harbor	✓	✓

Improvements to Existing Rail Corridors

- Upgrade Light Rail signal priority on Howard Street
- Realign Light Rail tracks on Howard Street
- Support Amtrak in the construction of a new Baltimore and Potomac (B&P) Tunnel on the MARC Penn Line
- Remove at-grade crossings on the MARC Camden Line
- Replace West Baltimore Station in coordination with the B&P Tunnel realignment
- Establish a connection between the MARC Penn and Camden Lines

Transit Hubs

- Bayview Medical Center
- City Hall
- Downtown Baltimore at the Arena
- Johns Hopkins Hospital Metro
- Lexington Market
- Penn North Metro
- Penn Station
- Port Covington
- Walbrook Junction

Transit-Oriented Development

- Reisterstown Plaza
- Rogers Avenue
- Penn Station
- State Center
- Westport

BALTIMORE COUNTY

Improvements to Fixed-Route Services

Area Name	Peak	Off Peak	Weekend
Cockeysville			✓
Dundalk (Wise Avenue)			✓
Essex		✓	✓
MD 43 (Crossroads)	✓	✓	
Middle River		✓	✓
Perry Hall		✓	✓
Randallstown			✓
Reisterstown/ Glyndon			✓
Towson	✓	✓	✓
Tradepoint Atlantic	✓	✓	✓
White Marsh		✓	✓

Small Area Plans and Shared Mobility / Microtransit

Area Name	Small Area Plan Study	Shared Mobility / Microtransit Solutions
Towson	✓	
Tradepoint Atlantic	✓	
Owings Mills		✓
Hunt Valley		✓

New Local and Express Transit Routes

Area Name	Type of Service	Link Destination / Need
Belair Road (Overlea, Putty Hill, Perry Hall)	Local Bus	Crosstown service to connect east and west neighborhoods (Hamilton, Parkville, Towson, Rosedale) and arterial transit routes
Harford Road (Hamilton, Parkville)	Local Bus	Crosstown service to connect east and west neighborhoods (Hamilton, Parkville, Towson, Rosedale) and arterial transit routes
MD 43 (Crossroads)	Local or Express Bus	Future or growing job center needing new local or express transit routes
Woodcrest (Glen Burnie)	Local Bus	Community circulation needs
Essex	Local Bus	Tradepoint Atlantic
Middle River	Local Bus	Tradepoint Atlantic
Owings Mills	Local or Express Bus	Owings Mills local circulator
Perry Hall	Local or Express Bus	White Marsh, Towson, Essex
Pikesville	Local or Express Bus	Towson
Towson	Local or Express Bus	White Marsh, Perry Hall, Parkville, Pikesville; Community circulation needs
Tradepoint Atlantic	Local or Express Bus	White Marsh, Middle River; future or growing job center
White Marsh	Local or Express Bus	Perry Hall

Improvements to Existing Rail Corridors

- Make necessary investments to complete and open the Light Rail station at Texas in the Cockeysville area
- Enhance the Martin State Airport MARC station by eliminating at-grade passenger boarding

Transit Hubs

- Downtown Towson

Transit-Oriented Development

- Timonium Fairgrounds
- Martin State Airport

HARFORD COUNTY

Improvements to Fixed-Route Services

Area Name	Peak	Off Peak	Weekend
Aberdeen & Aberdeen Proving Ground	✓	✓	✓
Bel Air	✓	✓	✓
Edgewood	✓	✓	✓
Havre de Grace	✓	✓	✓

New Local and Express Transit Routes

Area Name	Type of Service	Link Destination / Need
Aberdeen & Aberdeen Proving Ground	Local or Express Bus	Belair, White Marsh, Perry Hall, Edgewood; Internal campus circulation needs
Edgewood	Local or Express Bus	Towson, White Marsh/Rossville

Small Area Plans and Shared Mobility / Microtransit

Area Name	Small Area Plan Study	Shared Mobility / Microtransit Solutions
Aberdeen & Aberdeen Proving Ground	✓	✓
Northwest Bel Air/ Forest Hill	✓	✓

Transit-Oriented Development

- Aberdeen
- Edgewood

Improvements to Existing Rail

- Explore closing the gap in regional rail service between MARC Train and SEPTA service through Newark, Delaware

HOWARD COUNTY

Improvements to Fixed-Route Services

Area Name	Peak	Off Peak	Weekend
Columbia		✓	✓
Columbia Gateway	✓		
Elkridge			✓
Ellicott City	✓		✓
Hickory Ridge			✓
Jessup	✓		✓
Laurel	✓	✓	✓
Montgomery Woods	✓		
North Laurel	✓		
Route 1 Corridor	✓	✓	✓
West Elkridge (Waterloo, Woodland Village)	✓		

Small Area Plans and Shared Mobility / Microtransit

Area Name	Small Area Plan Study	Shared Mobility / Microtransit Solutions
Dunloggin		✓
Hickory Ridge		✓
Maple Lawn		✓
Route 1 Corridor	✓	
Turf Valley (West Friendship)		✓

New Local and Express Transit Routes

Area Name	Type of Service	Link Destination / Need
Clarksville	Express Bus	Laurel, Savage, Jessup, Kings Contrivance
Columbia	Local or Express Bus	Ellicott City, MD 175 Corridor
Elkridge	Express Bus	Ellicott City
Ellicott City	Local or Express Bus	Elkridge, West Friendship, Columbia, Arundel Mills
Jessup	Local or Express Bus	Clarksville, Maple Lawn
Kings Contrivance	Local or Express Bus	Clarksville, Maple Lawn
Laurel	Local or Express Bus	Clarksville, Maple Lawn
Maple Lawn	Local or Express Bus	Laurel, Savage, Jessup, Kings Contrivance
Route 1 Corridor	Local or Express Bus	Future or growing job center needing new local or express transit routes; Community circulation needs
Savage	Local or Express Bus	Clarksville, Maple Lawn
West Elkridge (Waterloo, Woodland Village)	Local or Express Bus	Ellicott City

Improvements to Existing Rail Corridors

- Remove at-grade crossing on MARC lines

Transit Hubs

- The Mall in Columbia

Transit-Oriented Development

- Dorsey
- Laurel Park

6

What is a Regional Transit Corridor?

Available Modes
Limited Stop or Express Bus
Bus Rapid Transit (BRT)
Light Rail
Heavy Rail
Commuter Rail

Transit Priority
Varying use of dedicated roadway/ right-of-way space and/or coordinated traffic signals

Frequency
At least every 15 minutes peak

At least every 20 to 60 minutes off-peak

Operating Hours
14 to 24 hours per day 7 days a week

Stops
Limited suburban stops
More frequent urban stops

Other Characteristics
On-board & off-board fare payment
Stops with shelters, wayfinding, and lighting

Regional Transit Corridors

Identifying the Regional Transit Corridors is an important step in achieving the Plan's objectives and creating a better transit network. These corridors have been selected with input from the Commission and the public because they:

- Demonstrate transit demand that justifies infrastructure, service, and technology improvements
- Have regional significance and often provide connectivity between different jurisdictions

The corridors defined in this plan are meant to remain flexible to accommodate the results of future feasibility studies. These corridors have been presented to the Commission and public for comment.

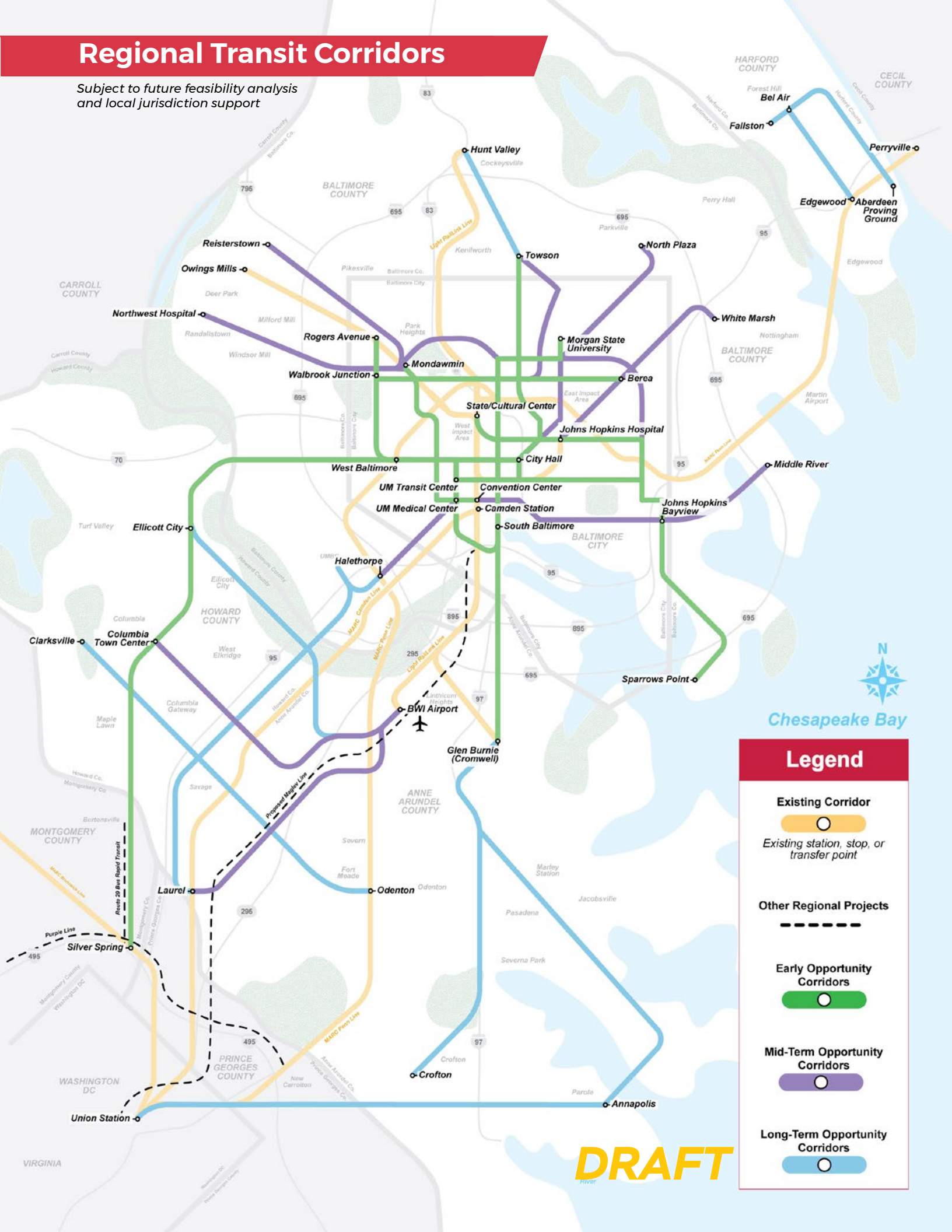
Corridor identification and prioritization is the first step in the process. This plan does not:

- Identify what mode of transit would be used
- Define specific routes or alignment
- Develop specific levels of services
- Identify where stations would be located

These decisions will be made as the corridors are studied over the next 25 years with the participation of the public and corridor stakeholders.

Regional Transit Corridors

Subject to future feasibility analysis and local jurisdiction support



The proposed Regional Transit Corridors share several common features that distinguish them from other proposals in the Plan. Each has or is projected to have sufficient ridership demand to support all-day, high-frequency transit. Further, these corridors also require additional infrastructure investment to fully support successful transit. These investments may include dedicated right-of-way, signal priority, shelters or stations, and other customer amenities.

Corridor Prioritization

The corridors were evaluated using 16 different measures. These measures determined each corridor's suitability for investment in high-capacity rapid transit. Each corridor was determined with the Commission to be either an early, mid-term, or long-term opportunity. The corridors have not been ranked within the groups. In addition, these groupings are not binding; changes in existing conditions or priorities may result in a corridor moving from one group to another.

Early Opportunity Corridors			
Corridor #	Corridor Name	Corridor #	Corridor Name
1	Morgan State University to South Baltimore	17	West Baltimore to Hopkins Bayview
2	Glen Burnie to South Baltimore	18	Sparrows Point to Hopkins Bayview
6	Towson to UM Transit Center		
12	Mondawmin to South Baltimore	19	State Center to Hopkins Bayview
13	Rogers Avenue to City Hall	20	Walbrook Junction to Berea
16	Ellicott City to Convention Center	27	Ellicott City to Silver Spring

Mid-Term Opportunity Corridors			
Corridor #	Corridor Name	Corridor #	Corridor Name
5	Convention Center to Middle River	15	Mondawmin to Northwest Hospital
8	Towson to South Baltimore	22	Mondawmin to Hopkins Bayview
9	North Plaza to UM Transit Center	23	Halethorpe to UM Transit Center
10	White Marsh to Johns Hopkins Hospital	24	BWI Airport to Laurel
14	Mondawmin to Reisterstown	25	BWI Airport to Columbia Town Center

Long-Term Opportunity Corridors			
Corridor #	Corridor Name	Corridor #	Corridor Name
3	Glen Burnie to Annapolis	21	Laurel to Halethorpe
4	Glen Burnie to Crofton	26	Odenton to Clarksville
7	Towson to Hunt Valley	28	Annapolis to Union Station
11	Fallston to Aberdeen Proving Ground	29	Bel Air to Edgewood
		30	Ellicott City to BWI Airport

Integrative Corridor Investments in Action: North Avenue Rising

North Avenue Rising is a collaborative project between the MDOT MTA, Baltimore City, the Federal Transit Administration (FTA), and community partners to support economic revitalization along North Avenue through increased mobility and access to economic opportunity. The project includes many of the strategies and infrastructure investments proposed in the RTP, including dedicated bus lanes, transit signal priority, bus shelters, pedestrian and bicycle infrastructure, and mobility hubs.

Next Steps for Early Opportunity Corridors

The early opportunity corridors have a strong transit demand today and they are often important links in building a regional network. They would benefit the most people, jobs, and households in the region.

In the short term, jurisdictions, MDOT MTA, the Baltimore Regional Transportation Board (BRTB), and/or the local transit provider should:

- Start corridor studies to assess alternatives that best match the corridor's needs
- Enhance existing service
- Evaluate and install/construct transit priority infrastructure
- Enhance multimodal access to stops and stations

Next Steps for Mid-Term and Long-Term Opportunity Corridors

The mid-term opportunity corridors have a moderate existing transit demand, while long-term opportunity corridors are selected for their potential to benefit areas where transit demand is expected to increase over the next 25 years.

To prepare these corridors for successful transit investments, jurisdictions, MDOT MTA, BRTB, and/or local transit providers should:

- Build transit ridership by implementing or improving existing service
- Implement incremental transit priority infrastructure so that existing transit is faster and more reliable

- Review and change land use and zoning ordinances to be more transit supportive
- Facilitate better pedestrian and bicycle access to get to the existing and potential future transit corridors

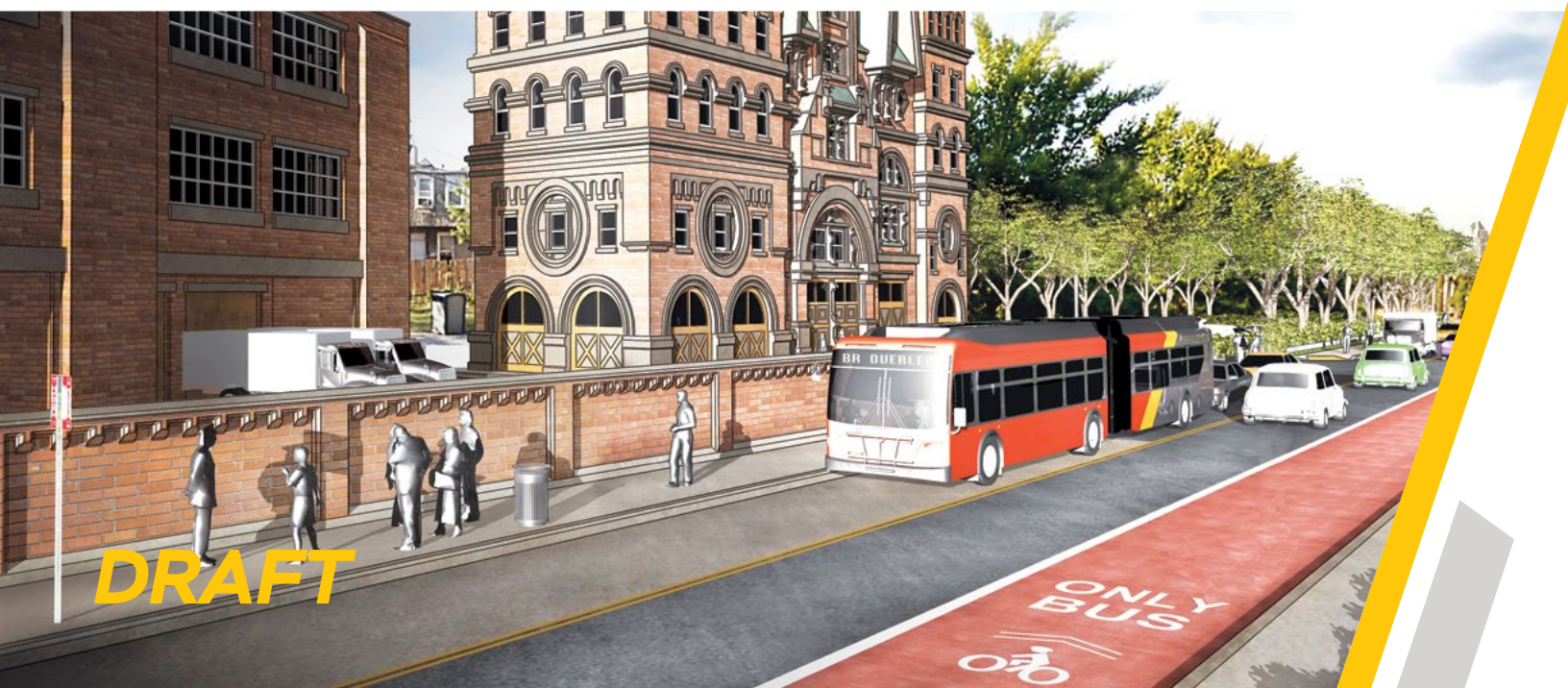
Benefits of the Regional Transit Corridors

Fully implementing all of the Regional Transit Corridors will result in a significantly more connected region with better access to jobs and other opportunities. Today, half the region's jobs are accessible by transit; however, without these corridor investments, the percentage will drop to 45% as the region grows outside of areas currently served by transit. Comparatively, if the top 11 corridors are implemented, 49% of the region's jobs will be accessible transit. If all 30 corridors are implemented, 62% of the region's jobs would be accessible by transit.

How the Initatives Work Together to Connect the Region

The three types of initatives in the Plan - Strategies, Transit Network Improvements, and Regional Transit Corridors - are mutually supportive and symbiotic. They offer a comprehensive, coordinated blueprint to advance and connect the region as it grows, and investments in one should complement the others.

The successful implementation of these strategies will require jurisdictions, transit providers, and stakeholders to work together to coordinate infrastructure investments, planning, and development across the region.



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This ambitious plan will support the region's growth, sustain the environment, transform communities, and connect residents to jobs and services. It will improve the way we move through our daily lives. To continue the momentum sparked through the RTP development, an initial implementation plan outlines actions for the first five years.

An Implementation Team comprising MDOT MTA, the LOTS, and representatives of the local jurisdictions will work together to enact the Plan. An Implementation Coordinator at MDOT MTA will provide staff support to the Implementation Team and assist with tracking projects. The Implementation Team and Coordinator will also collect data to set baselines and establish targets for each of the Objectives in this plan.

Five-Year Implementation Plan

Provide Faster, More Reliable Service

- Install real-time information displays at key transit hubs
- Design and construct improvements at three transit hubs
- Reintroduce MDOT MTA limited-stop service where appropriate
- Investigate and implement targeted investments for Bus and Commuter Bus:
  - An additional five corridors of Transit Signal Prioritization
  - An additional 10 miles of dedicated bus lanes
  - Traffic signal retiming on Howard Street

Next Steps

- Institute a curb management committee with the local jurisdictions
- Explore level boarding, all-door boarding and off-board fare collection

Grow Ridership

- Actively pursue transit-oriented development opportunities around rail stations
- Develop a park-and-ride lot plan to grow the capacity and access to Commuter Bus
- Study extending MARC Train service to L'Enfant Plaza in Washington, D.C., and northern Virginia
- Convene a Task Force of MDOT MTA, state agencies, city and county agencies, business representatives, community representatives, and riders to focus on growing ridership on Light Rail and Metro Subway

Increase Access to Jobs and Opportunities

- Initiate planning studies for two to three "Early Opportunity" Corridors
- Initiate and implement five Small Area Transit Plans
- Identify and actively develop Shared Mobility hubs throughout the region
- Form a Committee representing MDOT MTA, BMC, regional colleges/schools, federal/ military institutions, business community and philanthropic organizations to identify ways improve coordination of private shuttles and the expansion of the use of Commuter Choice Maryland

Improve the Customer Experience

- Identify ways to simplify fare structures and integrate payment systems throughout the region for paratransit service
- Maintain cleanliness of stations, stops, and vehicles
- Identify actions to reduce assaults on operators

Be Equitable

- Improve the efficiency of paratransit services with a focus on increasing subscription trips, implementing trip-by-trip eligibility, synchronizing paratransit span of service with local bus service, and improving trip scheduling
- Conduct ADA accessibility surveys, and passenger amenity reviews and begin implementation of improvements at all Light Rail and Metro Subway stations
- Form a Committee representing MDOT MTA, the LOTS, Paratransit, BMC, Human Service Agencies and the regional Departments of Aging to investigate and implement ways for further collaboration and coordination of transit service including the use of Shared Mobility options to improve transit access

Prepare for the Future

- Procure zero-emission vehicles and infrastructure for the MDOT MTA bus fleet
- Identify and implement ways to reduce energy use, water use, and GHG emission
- Rehabilitate and replace safety- and service-critical assets on schedule
- Conduct a skills and software needs assessment across all providers
- Form a Committee representing MDOT MTA, the LOTS, BMC and the regional Local Jurisdictional Planning offices to improve coordination and collaboration ensuring transit investments are in line with state and local plans, that new development is transit supportive, and that efforts are made to concentrate investments in designated growth areas

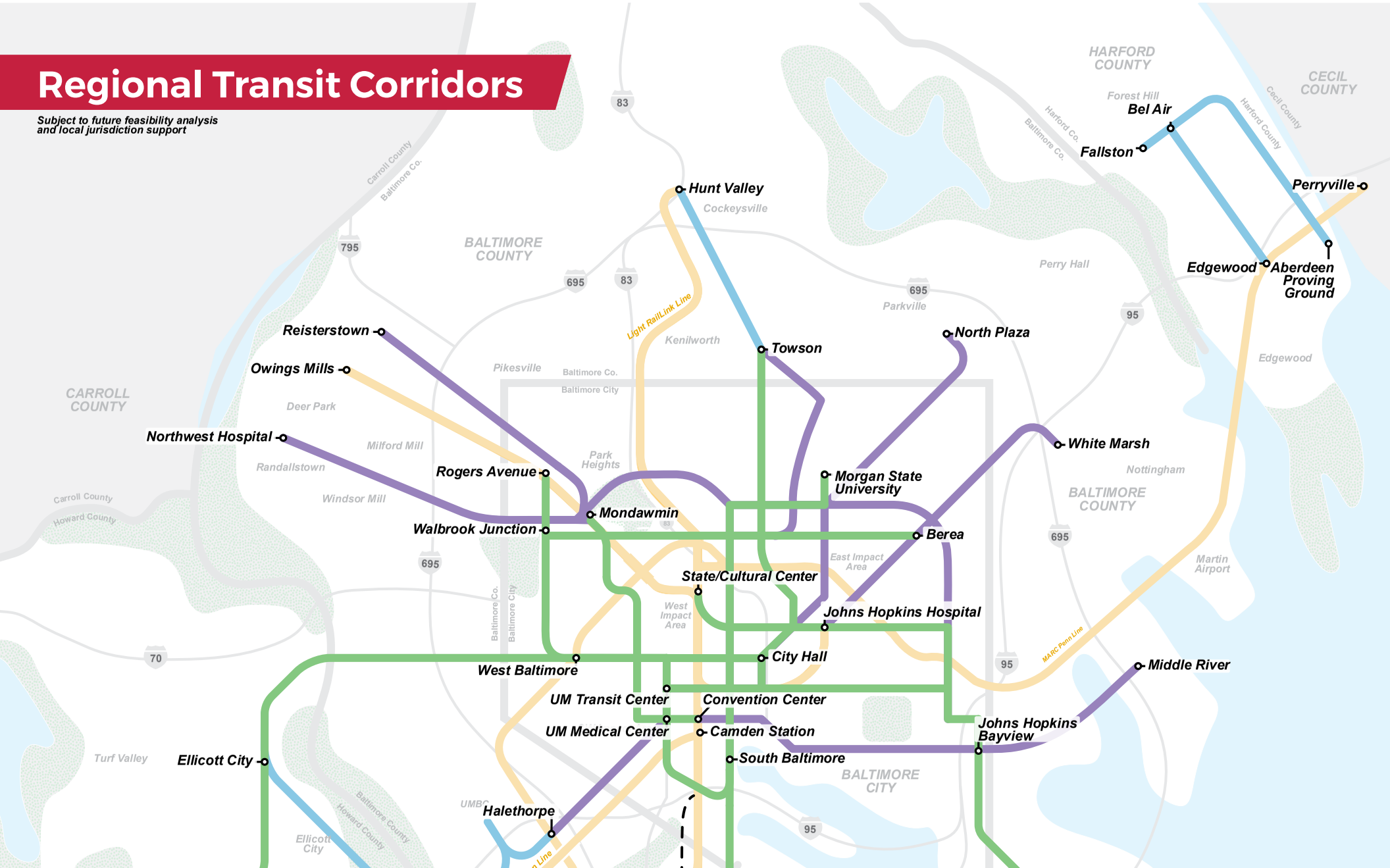
Tracking Our Progress

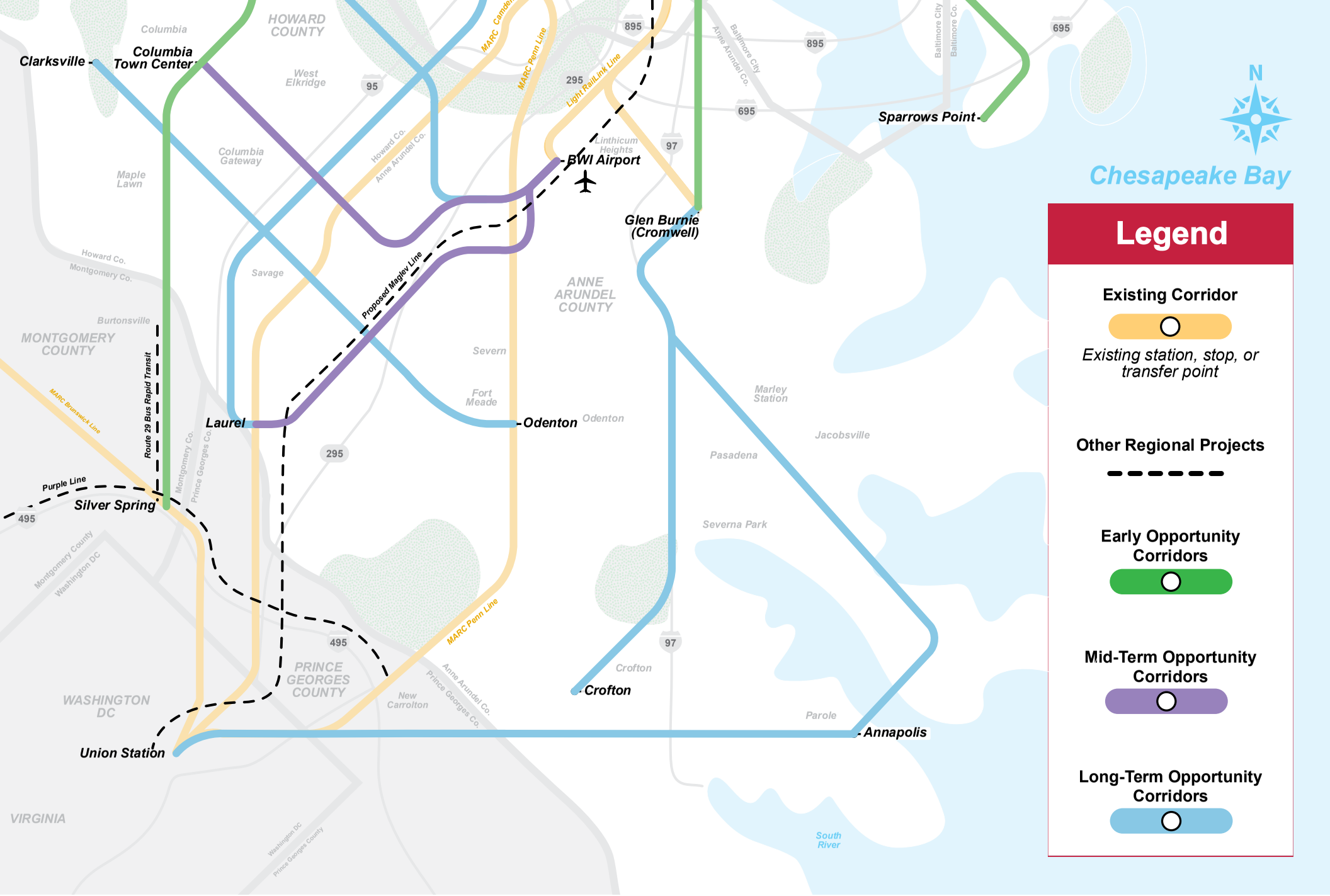
MDOT MTA will maintain a Progress Dashboard on its website to track the progress of the Regional Transit Plan in achieving the six objectives. Starting with existing numbers as a baseline, the following measures will be tracked regularly, some annually, others every five years, depending on the measure.

Plan Objectives		Measure	How Often
	Provide Faster, More Reliable Service	On Time Performance	Annually
		Number of Miles of Dedicated Bus Lanes	Annually
		Number of Intersections With TSP	Annually
		Paratransit On Time Performance	Annually
	Grow Ridership	Ridership Growth	Annually
	Increase Access to Jobs and Opportunities	Percentage of Jobs Accessible By Transit	Every 5 years
	Improve the Customer Experience	Customer Satisfaction Survey	Annually
		Number of at-grade Pedestrian Crossings	Every 5 years
		Safety Ranking	Annually
	Be Equitable	Percentage of Stops and Stations That Are ADA accessible	Annually
	Prepare for the Future	Percentage of Zero-Emission Transit Vehicles in the Fleet	Annually
		Percent Traveling By Transit	Annually

Regional Transit Corridors

Subject to future feasibility analysis and local jurisdiction support




Clarksville
Columbia Town Center
Columbia
HOWARD COUNTY
West Elkridge
Columbia Gateway
Maple Lawn
Howard Co.
Anne Arundel Co.
MARC Camden Line
MARC Penn Line
Light RailLink Line
95
295
895
695
97
Linthicum Heights
BWI Airport
Sparrows Point
Glen Burnie (Cromwell)
Chesapeake Bay
N
Legend
Existing Corridor
Existing station, stop, or transfer point
Other Regional Projects
Early Opportunity Corridors
Mid-Term Opportunity Corridors
Long-Term Opportunity Corridors
Howard Co.
Montgomery Co.
Savage
Proposed Maglev Line
ANNE ARUNDEL COUNTY
Burtonsville
MONTGOMERY COUNTY
Route 29 Bus Rapid Transit
MARC Brunswick Line
Laurel
Odenton
Severn
Fort Meade
Marley Station
Jacobsville
Pasadena
Severna Park
Purple Line
Silver Spring
495
Montgomery County
Washington DC
Prince Georges Co.
PRINCE GEORGES COUNTY
WASHINGTON DC
New Carrollton
Crofton
Parole
Annapolis
Union Station
VIRGINIA
South River

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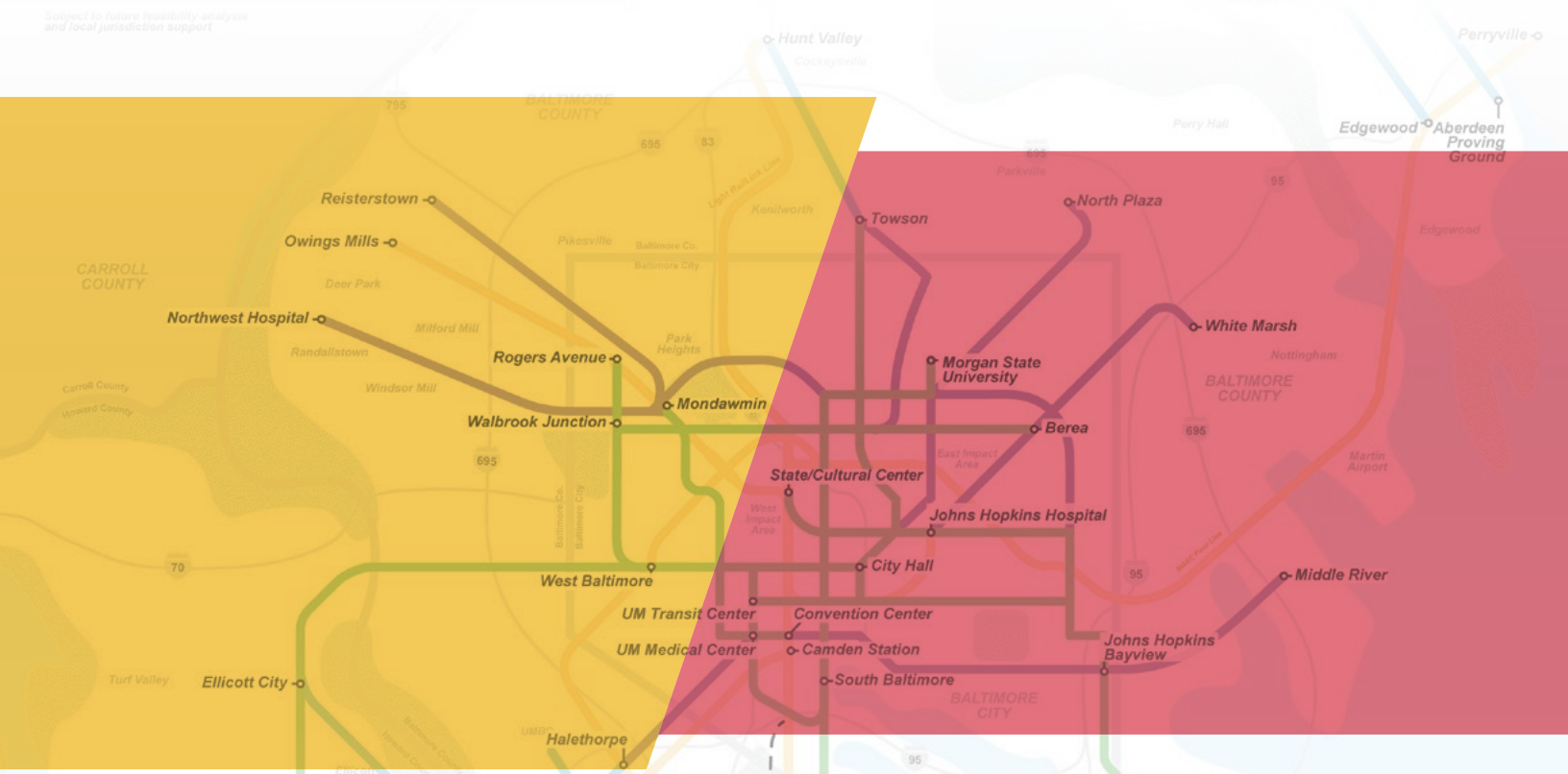
Connecting Our Future

A Regional Transit Plan for Central Maryland



MARYLAND DEPARTMENT OF TRANSPORTATION

MARYLAND TRANSIT ADMINISTRATION

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