



Appendix E

Public Outreach and Engagement

Overview

As described in [Chapter 1](#) of this document, federal law requires metropolitan planning organizations (MPOs) to consult with state and local officials, transit operators and the public in conducting transportation planning.

MPOs are also required to develop a public participation plan that defines a process for providing the public and interested parties with reasonable opportunities to be involved in the planning process. The Baltimore Regional Transportation Board (BRTB) updated its Public Participation Plan in 2022 during the early stages of drafting *Resilience 2050*.

On May 17, 2023, we released drafts of the *Resilience 2050* long-range transportation plan, *2024-2027 Transportation*

Improvement Program and associated *Air Quality Conformity Determination* for public review. In the following weeks, we coordinated a regional outreach campaign, including paid promotion and significant additional impact from social media and earned media. We also hosted one virtual and seven in-person public meetings, which included prepared presentations, handouts and opportunities to ask questions and engage in discussion on the draft plans. The public comment period closed on June 20, 2023.

Our [online project hub](#) included details about the plans, a pre-recorded video overview, an interactive StoryMap, interactive project maps and full draft plan documents, as well as more information on ways to comment. This hub was the primary landing page for public outreach, and received over 4,800 visits during the comment period.



Public Participation Plan

MPOs are also required to develop a public participation plan that defines a process for providing the public and interested parties with reasonable opportunities to be involved in the planning process. Federal law stipulates that the public participation plan considers the needs of people and groups traditionally underserved by transportation systems, including low-income and minority households.

While federal laws and regulations set a framework for public involvement, we strive to exceed the letter of the law and meet a high standard of fulsome engagement. This means conducting an open metropolitan planning process that ensures reasonable access to information, timely public notice, full public access to key decisions and support for early and continued involvement of stakeholders.



Changes implemented in the 2022 Public Participation Plan include:

- hosting virtual meetings in comment periods in addition to in-person meetings, or ensuring virtual access to meetings, to accommodate uncertainties about the COVID-19 pandemic and the role of virtual meetings in social connection and civic involvement,
- expanding ways to comment to ensure comments could be accepted in more modes, such as voicemail and text, as well as in many languages,
- clarifying policies for accepting comments on social media and establishing guidelines for moderation of comments on these platforms,
- refreshing the accessibility policy to use plain and inclusive language,
- updating the list of interested parties to include civil rights organizations,
- inserting guidance to make recorded presentations and meetings available online and
- adding information about Executive Order 13985 - Advancing Racial Equity and Support for Underserved Communities Through the Federal Government.

2022 Refresh

We refreshed our Public Participation Plan in 2022 during the early stages of drafting *Resilience 2050*. This began with a public survey to help identify areas for continued improvement in facilitating strong public involvement. We launched the survey on April 29, 2022, and sought responses through May 27, 2022.

The survey helped inform proposed changes to the Public Participation Plan.

We released a draft updated Public Participation Plan on August 22, 2022 and sought public comment through October 7. This comment period included a virtual public meeting on September 20. During the comment period, we received 90 survey responses and 41 comments. We reviewed and responded to all comments.

The BRTB voted to approve the update on November 22.

Resilience 2050 Public Comment Periods

Planning for *Resilience 2050* began in 2021, and included opportunities for members of the public to share feedback at several key stages.

Initial Planning

We launched an online project hub for the early planning of *Resilience 2050* in summer 2021. This site provided an overview of the steps in the planning process and invited the public to share their opinion on the question, 'What does it mean for our region's transportation system to be resilient and ready for the challenges of 2050?' Additional comments were also welcome throughout the planning process. Over 1,100 people visited the online project hub, which received 17 comments.

Goals & Strategies

We released a draft set of Goals & Strategies for public review in fall 2021 and sought public comments from Wednesday, September 8 through Tuesday, October 12, 2021. Over 2,000 people visited the online project hub, which received 151 survey responses and 166 comments. Themes included an emphasis on improving safety on transit and for pedestrians, a desire for reliable and timely transit service and a recommendation to shift towards sustainable modes and away from adding highway

lanes. Based on public comments, we updated the Goals & Strategies as they appear in the final plan document.

White Papers

In February 2022, we launched a series of white papers on topics related to the development of *Resilience 2050*. We released eleven white papers about monthly, promoting each on social media and with direct outreach to interested parties and mailing list subscribers. The *Resilience 2050* White Papers online project hub received 4,260 views, with 390 survey responses and 140 comments. We shared responses to comments on the project page.



White Papers
Issue 8 - November 2022

Overview of Socioeconomic Forecasting

Planning for regional transportation services requires an understanding of current and forecast demographic and socioeconomic characteristics across geography and time. A region's transportation system influences its growth and development, while the type and location of growth in turn influence travel choices. Given this connection, the Baltimore Regional Transportation Board (BRTB) strives to coordinate land-use planning and transportation decisions among local, regional and state partners.

The Cooperative Forecasting Group (CFG), a subcommittee of the BRTB, develops a set of population, household and employment estimates and forecasts at the jurisdiction and small area levels of geography for transportation planning purposes. CFG members develop forecasts for their own jurisdictions, which are then summed up to the regional totals.

The CFG forecasts are a key part of the development of the upcoming Long-Range Transportation Plan (LRTP), *Resilience 2050*. *Resilience 2050* will include a list of planned major federally funded

planning horizon of *Resilience 2050*.

While population in the Baltimore region continues to grow, it is forecast to do so at a slower rate than in previous years. According to decennial census data, the region grew by 460,000 persons (19.4%) in the 30-year period between 1990 and 2020. The Round 10 dataset projects the region to grow by 360,000 persons (12.6%) in the 30-year period from 2020 to 2050.

Watch for our upcoming white paper on regional demographic growth trends and expectations.



The region's growth in households is forecast to outpace population growth over the forecast horizon, with growth of 15.0%, while average household size is anticipated to decrease from 2.53 in 2020 to 2.48 in 2050, which could affect the average number of trips taken by each household. The employment forecasts indicate regional growth of approximately 375,000 jobs from 2020 to 2050 (25.5%).

Analyses of the forecasts among jurisdictions

Resilience 2050, 2024-2027 TIP and Air Quality

We held a comment period for the *Resilience 2050: Adapting to the Challenges of Tomorrow* long-range transportation plan and 2024-2027 *Transportation Improvement Program*, as well as the associated *Air Quality Conformity Determination* on both plans.

On May 17, 2023, we released drafts of the plans for public review through our online project hub, which included details about the plans, a pre-recorded video overview, an interactive StoryMap, interactive project maps and full draft plan documents, as well as more information on ways to comment. We translated the *Resilience 2050* Executive Summary into Spanish, and our online project hub materials could be translated with a click.

We hosted a virtual meeting to discuss the plans on Wednesday, May 24 at 12 p.m. EST. We also hosted an in-person open house meeting with each of the seven jurisdictions in the planning region, including:

Overview

Public Meetings

Share Your Thoughts

The Baltimore Regional Transportation Board, as the metropolitan planning organization for the Baltimore region, has put together a list of transportation projects for the coming two decades. An overview is below.

Long Term Investments

Every four years, the BRTB develops a long-term plan for transportation investments. The 2023 plan is called *Resilience 2050: Adapting to the Challenges of Tomorrow*. Resilience is necessary for the ongoing performance of our transportation system, our environment, our economy and our livelihoods.



This \$70 billion plan includes investments supporting the operation and preservation of our transportation system along with details on transit, bicycle, pedestrian, roadway, and interchange projects that may receive federal funding for the years 2028 through 2050. Many of these projects expand roadway or transit capacity, while others help our transportation system to function more efficiently or seek to preserve existing transportation infrastructure.

Please view the draft *Resilience 2050* through the BRTB's [interactive map](#) or check out our [story map](#). The draft *Resilience 2050* is also available in PDF format for download:

BRTB Investing in a Resilient Future

Resilience 2050

Map of Resilience 2050

2024-2027 TIP

Map of TIP Projects

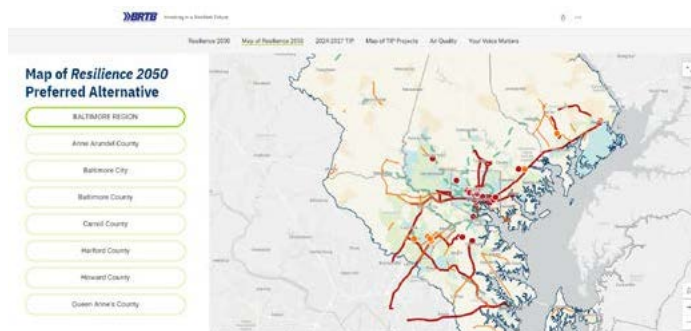
Air Quality

Your Voice Matters



The Baltimore Regional Transportation Board (BRTB) is seeking [public comments through Tuesday, June 20](#) on three transportation-related documents – the *Resilience 2050* long-range transportation plan, 2024-2027 *Transportation Improvement Program* and associated *Air Quality Conformity Determination*.

About Resilience 2050



COMPLETE

Project Ideas Submitted

BRTB members identified projects throughout the region that they'd like to be considered for inclusion in *Resilience 2050* and the 2024-2027 TIP. Staff verified project goals and costs.

COMPLETE

Prioritization and Scoring



FOR IMMEDIATE RELEASE
LEER EN ESPAÑOL

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BRTB SEEKING COMMENTS ON DRAFT RESILIENCE 2050 TRANSPORTATION PLANS

BALTIMORE, MD (Wednesday, May 17, 2023) – The Baltimore Regional Transportation Board (BRTB) is drafting plans for \$74 billion of investments in the region's transportation system. A public comment period on the draft *Resilience 2050* long-range transportation plan, 2024-2027 *Transportation Improvement Program* and *Air Quality Conformity Determination* will close on June 20, and include opportunities online and in-person to learn more and weigh in.

Mike Kelly, executive director of Baltimore Metropolitan Council, a planning organization which supports and staffs the BRTB, thanks the local and state partners who manage the region's transportation system. Through the BRTB, these agencies collaborated to shape the goals and priorities of the *Resilience 2050* plans and programs.

"This is a very exciting moment," Kelly says. "These plans can help shape our region for decades, and we're grateful to work with people who are dedicated to supporting the health and resilience of our communities."

With a projected population growth of 12.6 percent by 2050, the region's transportation system – including roads and bridges, transit, sidewalks, bicycle and shared-use paths – will face factors such as increased demand, changing user needs and climate impacts. The investments detailed in the *Resilience 2050* long-range plan would help us meet those challenges within the limits of anticipated funding. The projects in the 2024-2027 *Transportation Improvement Program* have committed funding for project phases ranging from planning to construction. Both plans are now available for public review and comment.

To dig into the plans, learn more about potential projects near you and share your thoughts, please go to publicinput.com/Resilience2050.



- Carroll County – Wednesday, May 31, 6-8 p.m. at the Carroll County Government Building, 225 North Center Street, Westminster MD 21157,
- Harford County – Monday, June 5, 6-8 p.m. at the Harford County Government Building, 220 South Main Street, Bel Air MD 21014,
- Anne Arundel County – Tuesday, June 6, 6-8 p.m. at the Henry L. Hein Public Service Building, 7480 Baltimore Annapolis Boulevard, Glen Burnie MD 21061,
- Baltimore County – Wednesday, June 7, 5-7 p.m. at the Baltimore County Library Towson Branch, 320 York Road, Towson MD 21204,
- Queen Anne's County – Thursday, June 8, 5-6:30 p.m. at the Kent Island Senior Center, 891 Love Point Road, Stevensville MD 21666,
- Baltimore City – Monday, June 12, 6-8 p.m. at the War Memorial Assembly Hall, 101 North Gay Street, Baltimore MD 21202, and
- Howard County – Thursday, June 15, 6-8 p.m. at the Howard County George Howard Building, 3430 Court House Drive, Ellicott City MD 21043.

The online project hub, which was the primary landing page for outreach, received over 4,800 visits during the comment period and gathered over 100 comments, including many from individuals representing larger organizations, coalitions and other stakeholder groups. The public comment period closed on Tuesday, June 20.





Examples of social media graphics prepared to promote the release of the draft plans.

Promotion and Outreach

In light of the scope of these plans and the level of detail included in the draft documents, we sought to present the plans simply with plain language through many modes to accommodate a range of learning styles.

Notably, we also worked within jurisdictions to develop localized messaging for distribution online and at each in-person meeting. This included locally targeted print and digital advertising, as well as localized media kits shared with our member agencies and other partners managing the region's transportation system at the local level. Local messaging included a focus on key projects in a jurisdiction and anticipated spending impacting a jurisdiction.

Paid promotion of the comment period included a total of \$10,315 across 13 print, radio and digital outlets in the region, including Spanish-language print and digital ads. The digital ads alone earned a minimum of 166,000 impressions.



Sample Print Ads

Resilience 2050
Adapting to the Challenges of Tomorrow

\$74 billion
for transportation
in the Baltimore region

YOUR VOICE MATTERS

LEARN MORE

OUR REGION IS GROWING
THESE INVESTMENTS WILL HELP OUR
TRANSPORTATION SYSTEM KEEP UP

WE WANT TO HEAR FROM YOU!

Join us for a virtual meeting on **Wednesday, May 24 at 12 p.m.**,
or join any of our in-person meetings around the region:

Westminster: 225 N. Center Street, Wednesday, May 31 at 6 p.m.
Bel Air: 220 S. Main Street, Monday, June 5 at 6 p.m.
Glen Burnie: 7480 Baltimore Annapolis Boulevard, Tuesday, June 6 at 6 p.m.
Towson: 320 York Road, Wednesday, June 7 at 5 p.m.
Stevensville: 891 Love Point Road, Thursday, June 8 at 5 p.m.
Baltimore: 101 N. Gay Street, Monday, June 12 at 6 p.m.
Ellicott City: 3430 Court House Drive, Thursday, June 15 at 6 p.m.

BALTIMORE METROPOLITAN COUNCIL **BRTB**
BALTIMORE REGIONAL TRANSPORTATION BOARD

Resilience 2050
Adapting to the Challenges of Tomorrow

\$74 mil millones
para el transporte
en la región de Baltimore

¡Queremos escuchar de ti!

¡Traduce nuestros materiales en línea con un solo clic!

LEARN MORE

BALTIMORE METROPOLITAN COUNCIL **BRTB**
BALTIMORE REGIONAL TRANSPORTATION BOARD

Sample Digital Ads

Resilience 2050
Adapting to the Challenges of Tomorrow

\$74 billion for transportation
in the Baltimore region

Curious to learn more? We want to hear from you! Click to learn how to comment!

BALTIMORE METROPOLITAN COUNCIL **BRTB**
BALTIMORE REGIONAL TRANSPORTATION BOARD

Resilience 2050
Adapting to the Challenges of Tomorrow

\$74 mil millones para el transporte
en la región de Baltimore

Haz clic para saber cómo comentar.

BALTIMORE METROPOLITAN COUNCIL **BRTB**
BALTIMORE REGIONAL TRANSPORTATION BOARD

Resilience 2050
Adapting to the Challenges of Tomorrow

\$10.5 billion
impacting
transportation
in Baltimore City

- Improving the Hanover Street Bridge corridor for all users
- Deconstructing US 40 from Smallwood to Greene
- Developing an east-west transit corridor ... and more.

Share your thoughts!

Learn More

Resilience 2050
Adapting to the Challenges of Tomorrow

\$74 billion
for transportation
in the Baltimore region

Curious to learn more? We want to hear from you! Click to learn how to comment!

BALTIMORE METROPOLITAN COUNCIL **BRTB**
BALTIMORE REGIONAL TRANSPORTATION BOARD

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Sponsored

Resilience 2050
Adapting to the Challenges of Tomorrow

\$10.5 billion
impacting
transportation
in Baltimore City

- Improving the Hanover Street Bridge corridor for all users
- Deconstructing US 40 from Smallwood to Greene
- Developing an east-west transit corridor ... and more.

Share your thoughts!

Learn More

4 likes

baltometroco We're excited to share drafts of our Resilience 2050 plans for review. Weigh in to help

Combining reach estimates across outlets and modes suggests a potential total of more than a million impressions through paid promotion during the comment period.

Earned media included coverage from regional outlets including WBAL, WYPR's On The Record, Maryland Matters and more, as well as a Baltimore Sun op-ed from Anne Arundel County Executive Steuart Pittman, then BRTB Chair, and Howard County Executive Calvin Ball, Baltimore Metropolitan Council Board Chair. We also shared a *Reaching Resilience 2050* blog series featuring short Q&As with planners whose work lay the groundwork for the plan. The entries, which focused on air

quality, climate resilience, project implementation and safety, sought to shed more light on key factors associated with long- and short-range metropolitan transportation planning.

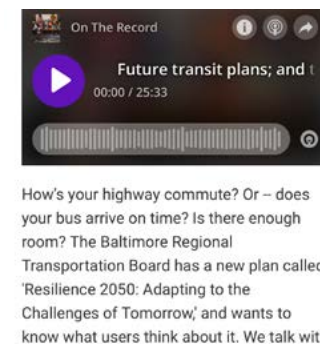
Throughout the comment period, a social media campaign across Twitter, Facebook, Instagram and LinkedIn earned 9,200 impressions. We also led a robust direct outreach campaign through press releases, newsletters and other emails to interested parties and stakeholder groups.



OP-ED

A \$70 billion plan for transportation in the Baltimore region | GUEST COMMENTARY

By Calvin Ball and Steuart Pittman
For The Baltimore Sun
Jun 13, 2023 at 6:06 am



Comments and Responses

Our staff, committee members and other planning partners have thoroughly reviewed and responded to all comments submitted. The full set of comments were shared with all BRTB, Technical Committee and Interagency Consultation Group members, and are also located on the PublicInput online project hub.

Let us say up front that we are very appreciative of the effort so many individuals and organizations have gone through to review materials and send in comments. This is informative for all of our members and does have an impact on the planning process. As is customary for the BRTB, we share all comments and responses with everyone who commented, as well as posting them online and including them in the final *Resilience 2050* long-range transportation plan, 2024-2027 *Transportation Improvement Program* and associated *Air Quality Conformity Determination* documents.

To manage the review and response to comments, we grouped them into categories. These categories are broad, so a variety of comments may be grouped under an individual heading. The following pages show all comments and responses arranged by category, including:

Active Transportation	<i>page 11</i>
Air Quality	<i>page 17</i>
Emerging Technology	<i>page 21</i>
Induced Demand	<i>page 25</i>
Less Highway	<i>page 28</i>
Multiple Topics	<i>page 52</i>
Other Topics	<i>page 70</i>
Project Specific	<i>page 73</i>
Transit	<i>page 77</i>

BRTB meetings are open to the public and include opportunities to share comments.



Active Transportation

COMMENT 1

Anonymous: I am disappointed to see that many of the pedestrian and bicycle upgrades in Harford County are dependent on road widening projects. Could the pedestrian and bicycle improvements be made independently of the road widening projects, allowing an alternative to driving and potentially alleviating the need for widening the roads at all?

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The funding for the necessary road projects cannot be reallocated to bicycle and pedestrian projects, however pedestrian and bicycle improvements can be made independently of road widening with other funding sources. Examples of this include the MA & PA trail and a recent study of a separated path for US 40. Thank you again for your comment.

COMMENT 2

Anonymous: Expand funding for more bicycle infrastructure! Having safe routes encourages bicycle transportation, and reduces needs more continued road expansion.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. In recent years, the Baltimore Regional Transportation Board has made important progress in planning and building a range of bicycle facilities, but there is much more to do. We welcome your support for these improvements. More of these improvements are on the way and new funding and policies from the Infrastructure Investment and Jobs Act (IIJA) has provided support in these areas. Though most of the projects in *Resilience 2050* are large-scale roadway and transit projects, it also includes significant investments in bicycle and pedestrian infrastructure. Nearly 3/4 of the projects in *Resilience 2050* include bicycle and pedestrian facilities as part of their project scope. *Resilience 2050* also includes \$250 million in funding set-aside for strategies improving air quality in the Baltimore region. Sixteen regional bicycle and pedestrian priority projects are included in *Resilience 2050* as part of this set-aside funding (see page 30 of [Chapter 7](#)). And we encourage you to be involved in the Vision for a Regional Bicycle Network project which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022. The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects. Thank you again for your comment.

COMMENT 3

Anonymous: I reviewed the Executive Summary and scanned the Baltimore Region Transportation Improvement Program DRAFT 2024-2027. These are great projects that will very likely contribute to increased Physical Activity (walking, biking and e-scooter riding) in Baltimore and ultimately combat Chronic Diseases (obesity, hypertension, diabetes and mental illnesses). I have not looked up the routes listed in the document. Nevertheless, I hope that one or more projects will focus on improving transportation access and frequency to Parks and Recreational Centers for the youth and adult populations.

Active Transportation (*continued*)

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We appreciate your support for the projects in *Resilience 2050* and the *2024-2027 TIP*. As you note, there is a connection between increased physical activity and public health. Research has shown that bicycling and walking can assist in people meeting recommended levels of physical activity and potentially improve public health due to the health benefits of increased physical activity. A well-connected and comfortable active transportation network can also increase access to recreational areas and parks. Also, replacing a vehicle trip with biking, walking or scooting reduces greenhouse gas emissions that contribute to poor air quality. However, walking and bicycling rates are impacted by the presence or lack of sidewalks and other pedestrian infrastructure, bicycle lanes, shared-use paths and bicycle boulevards. In recent years, the Baltimore Regional Transportation Board has made important progress in planning and building a range of bicycle facilities, but there is much more to do. We welcome your support for these improvements. More of these improvements are on the way and new funding and policies from the Infrastructure Investment and Jobs Act (IIJA) has provided support in these areas. We encourage you to be involved in the Vision for a Regional Bicycle Network project, which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022. The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects. Thank you again for your comment.

COMMENT 4

Brigitte Carty: On behalf of the Lower Susquehanna Heritage Greenway, I am writing to express our support for Susquehanna River Bicycle and Pedestrian Bridge project to create a fully accessible pedestrian and bicycle bridge, independent of the proposed Amtrak Bridge over the Lower Susquehanna River between Havre de Grace and Perryville. Importantly, the Susquehanna River Bicycle and Pedestrian Bridge project will create pedestrian access for people of all physical abilities where there currently is none, and it will drastically increase safety for cyclists who currently must endure high-stress conditions without any traffic separation, only fit for the most fearless and experienced cyclists, over the Hatem Bridge and Conowingo Dam Bridge. A new bicycle and pedestrian bridge would also expand reliable, affordable, and healthy mobility options to residents and visitors alike to access economic, social, and recreation opportunities. People will be able to travel without a vehicle between Havre de Grace, Perryville, and Aberdeen via multimodal transfers by bus and the MARC Penn Line with first/last mile connections across the river to get to and from destinations, furthering the state's sustainable transportation and development goals, while attracting investments into each town's downtown as part of the region's fast-growing outdoor recreation economy. This project would become a national destination unto itself, showcasing incredible views of both Havre de Grace's and Perryville's waterfronts with its natural and historic scenery, where the Susquehanna River meets the Chesapeake Bay. More broadly, a dedicated crossing for people of all ages and abilities on walking, biking, and rolling would finally resolve one of the most challenging gaps for nine major regional and national trails and routes: the Lower Susquehanna Heritage Greenway, Mason Dixon Trail, September 11th National Memorial Trail, East Coast Greenway, US Bicycle Route 201, Washington-Rochambeau Revolutionary Route, Star-Spangled Banner National Historic Trail, and Captain John Smith Chesapeake National Historic Trail, all while connecting to Susquehanna State Park trails. Finally, the crossing would align with the proposed creation of a Chesapeake National Recreation Area, linking the region to its wealth of cultural, historical, and natural resources.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. As you noted, on behalf of the Lower Susquehanna Heritage Greenway, access to public transit is important and can be enhanced by improving first-mile/last-mile active transportation connections ... *[continued]*

Active Transportation (*continued*)

[from previous] ... such as sidewalks and bike lanes. Creating local and regional active transportation networks with connections to transit has the potential to increase bicycling and walking rates in the region and will expand the reach of each mode. Improving last-mile connectivity will also increase equity by improving access to employment and core services for residents with low incomes, individuals with disabilities, children and older adults. The Concept Plan for Bicycle and Pedestrian Improvements along US 40 includes a recommendation for future studies to explore bicycle and pedestrian crossing opportunities across the Susquehanna River to improve regional connectivity and for connectivity of other area bicycle and pedestrian routes (i.e. the East Coast Greenway, U.S. Bicycle Route (USBR) 201, Lower Susquehanna Heritage Greenway Trail, North Park Loop (Joe K Trail), Mason Dixon Trail System, and Lafayette Trail). Thank you again for your comment.

COMMENT 5

Wyn Dobbs: I support many of the goals of this project, but I see strikingly little devotion to improving the cycling infrastructure of this space, which is unfortunate given cycling infrastructure is cheap, helps reduce air pollution and contributes to the health of the individuals cycling.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. It is accurate that most of the big-ticket projects in the long-range transportation plan, *Resilience 2050*, and the short-range Transportation Improvement Program (TIP) are highway and transit focused. There are multiple fund sources for bike and pedestrian projects, not all of which are federal funds. Only projects seeking federal funds are included in the TIP, and the Plan only includes projects anticipated to receive federal funds in the future. The scopes of nearly 3/4 of the projects in *Resilience 2050* include bicycle and pedestrian facilities. *Resilience 2050* also includes \$250 million in funding set-aside for strategies improving air quality in the Baltimore region. Sixteen regional bicycle and pedestrian priority projects are included in *Resilience 2050* as part of this set-aside funding (see page 30 of [Chapter 7](#)). In recent years, we have increased regional planning funds dedicated to 30% design for a range of bicycle facilities to make progress on a number of projects. However, due to our funding structure, the Baltimore Regional Transportation Board cannot use planning funds beyond 30% design. The BRTB and member jurisdictions have made important progress in planning and building a range of bicycle facilities, but there is much more to do. We welcome your support for these improvements. More of these improvements are on the way and new funding and policies from the Infrastructure Investment and Jobs Act (IIJA) has provided support in these areas. And we encourage you to be involved in the Vision for a Regional Bicycle Network project which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022. The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects. Thank you again for your comment.

COMMENT 6

Diane K: Please consider additional active transportation projects in the northeast region of the Baltimore Metropolitan Area like the US 40 Bike Ped Concept Plan to reimagine Route 40 as a multimodal transportation corridor with rail, transit, and bikeway options – specifically between Havre de Grace and Aberdeen but potentially a farther reaching concept. Please also consider the opportunity for a bike/pedestrian crossing of the Susquehanna River between Havre de Grace and Perryville for connecting the East Coast Greenway, the September 11th National Memorial Trail, and US Bikeway 201 through northeastern Maryland. This is particularly relevant with regard the mega-regional project of the Susquehanna River Rail Bridge project where the 1906 Amtrak bridge is being replaced with 2 new bridges. A separate bike/pedestrian bridge has been explored for 2 decades in this region and ... *[continued]*

Active Transportation (*continued*)

[from previous] ... it would be a lost opportunity not to consider a river crossing at this time. Both US 40 and the Amtrak rail line are in close proximity (within a half a mile of each other) and bisect Havre de Grace and Perryville. Lastly, it is great to see the MARC service connection to WILMAPCO supported in this document to provide regional rail and commuter gap service between MARC and SEPTA systems. Re-thinking active transportation and rail systems in this heavily traveled Northeast Corridor is appreciated and timely.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. Thanks for your support of the Concept Plan for Bicycle and Pedestrian Improvements along US 40, which was completed in spring 2023. The plan explored a shared-use path (an off-road path separated from motor vehicle traffic by an open space or barrier and intended for use by bicyclists, pedestrians, and other non-motorized users) along US 40 between the train station in the City of Aberdeen and Erie Street in the City of Havre de Grace, which currently has intermittent sidewalks and lacks dedicated bicycle infrastructure.

The Concept Plan for Bicycle and Pedestrian Improvements along US 40 includes a recommendation for future studies to explore bicycle and pedestrian crossing opportunities across the Susquehanna River to improve regional connectivity and for connectivity of other area bicycle and pedestrian routes (i.e. the East Coast Greenway, U.S. Bicycle Route (USBR) 201, Lower Susquehanna Heritage Greenway Trail, North Park Loop (Joe K Trail), Mason Dixon Trail System, and Lafayette Trail). In recent years, BMC and member jurisdictions have made important progress in planning and building a range of bicycle facilities, but there is much more to do. We welcome your support for these improvements. More of these improvements are on the way and new funding and policies from the Infrastructure Investment and Jobs Act (IIJA) has provided support in these areas.

Thank you again for your comment.

COMMENT 7

Robert Krasnansky: I would like help to get the Catonsville Short Line Trail Pedestrian Overpass over 695 added to the long term plan.

RESPONSE

BRTB: Unfortunately, this project idea would need to be better developed and be sponsored as a candidate project by a BRTB member agency to be considered at this time. To advance this project concept it is important to work with a project sponsor such as Baltimore County Department of Public Works and Transportation. Baltimore County DPW&T is finalizing the Baltimore County Bicycle and Pedestrian Master Plan which will provide important updates to the County's existing Eastern and Western Pedestrian and Bicycle Access Plans, which were developed more than 15 years ago.

On a regional level, we encourage you to be involved in the Vision for a Regional Bicycle Network project, which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022. The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects.

Thank you again for your comment.

Active Transportation *(continued)*

COMMENT 8

Jennifer S: Investments in reliable public transit that connects the city is key to a sustainable Baltimore. Bike lanes should also be prioritized as an alternative to automobile infrastructure. Many of the neighborhoods are small and could be traveled by bike, lessening traffic and a need for road expansions; however, the city currently is not designed for bike transit including a lack of parking options for bikes in many areas of the city.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that access to public transit is important and can be enhanced by improving first-mile/last-mile active transportation connections such as sidewalks and bike lanes. Creating local and regional active transportation networks with connections to transit has the potential to increase bicycling and walking rates in the region and will expand the reach of each mode. Improving last-mile connectivity will also increase equity by improving access to employment and core services for residents with low incomes, individuals with disabilities, children and older adults.

Resilience 2050 includes over \$3.8 billion in funding for two major transit corridors, the East-West and North-South Transit Corridors. It also includes funds for eleven transit hubs throughout Baltimore City, among other transit investments. Nearly 3/4 of the projects in *Resilience 2050* include bicycle and pedestrian facilities as part of their project scope. *Resilience 2050* also includes \$250 million in funding set-aside for strategies improving air quality in the Baltimore region. Sixteen regional bicycle and pedestrian priority projects are included in *Resilience 2050* as part of this set-aside funding (see page 30 of [Chapter 7](#)). Baltimore City accepts bicycle parking rack requests from the property owner of a location and from the general public through the Bicycle Parking Rack Request Form. Property owners who submit a request will be contacted by the City within 30 days and the location will be added to the queue for installation if the location is determined to be suitable. A request submitted by the general public will alert the Baltimore City Department of Transportation to the need for bicycle parking in the area. However, approval by the property owner adjacent to the location is needed. You can learn more here: <https://transportation.baltimorecity.gov/bikerackrequestform>. Also, MDOT Maryland Transit Administration is adding bike racks at 29 Local Bus, Light Rail, Metro Subway, MARC Train and Park-and-Ride locations around the state as part of its \$43 million Fast Forward: Customer Experience Enhancement Project. Once completed, bike racks will be available at every rail station in the MTA system. [Learn more here](#).

Thank you again for your comment.

COMMENT 9

Tim S: My family and I support expanded bike lanes. Also, extending the Jones Falls Trail northward to Lake Roland and beyond - possibly to the Ashland trailhead for the NCR trail.

Mass Transit is hugely important as well, although I have no idea how to successfully implement it. I always failed at that part of SimCity.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that both improving active transportation infrastructure and access to public transit are vital components of the transportation network. In addition, transit and bicycling infrastructure can work together. Creating local and regional active transportation networks with connections to transit has the potential to increase bicycling and walking rates in the region and will expand the reach of each mode. Improving last-mile connectivity will also increase equity by improving access to employment and core services for residents with low incomes, individuals with disabilities, children and older adults.

Resilience 2050 includes over \$4.8 billion in funding for transit expansion projects throughout the region. These projects include two major... *[continued]*

Active Transportation (*continued*)

[from previous] ... transit corridors, the East-West and North-South Transit Corridors, seventeen transit hubs throughout the region and several new express bus and BRT routes, among others. In addition, nearly 3/4 of the projects in *Resilience 2050* include bicycle and pedestrian facilities as part of their project scope. *Resilience 2050* also includes \$250 million in funding set-aside for strategies improving air quality in the Baltimore region. Sixteen regional bicycle and pedestrian priority projects are included in *Resilience 2050* as part of this set-aside funding (see page 30 of [Chapter 7](#)). One of these projects includes additional Torrey C. Brown/NCR Trail connections in Baltimore County.

In recent years, we have increased regional planning funds dedicated to 30% design for a range of bicycle facilities to make progress on a number of projects. However, due to our funding structure, the Baltimore Regional Transportation Board cannot use planning funds beyond 30% design. The BRTB and member jurisdictions have also made important progress in planning and building a range of bicycle facilities, but there is much more to do. We welcome your support for these improvements. More of these improvements are on the way and new funding and policies from the Infrastructure Investment and Jobs Act (IIJA) has provided support in these areas.

And we encourage you to be involved in the Vision for a Regional Bicycle Network project which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022. The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects.

Thank you again for your comment.

COMMENT 10

Steve Wagner: Proposed bike and walking along US40 (Pulaski Hwy) Aberdeen to HdG. Currently bikers and walkers are already using this route, day and night, with minimal separation from car traffic. A separation between vehicular traffic and the bike & sidewalk path would be a significant safety improvement.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. As you noted, there is currently a lack of sidewalks or other pedestrian infrastructure along the majority of US 40 between the train station in the City of Aberdeen and Erie Street in the City of Havre de Grace. This section also lacks dedicated bicycle infrastructure. The concept plan for a shared-use path (an off-road path separated from motor vehicle traffic by an open space or barrier and intended for use by bicyclists, pedestrians, and other non-motorized users) was completed in spring 2023. Funding has not yet been identified for future phases of design and construction of the project. However, the project will be eligible to apply for a variety of state and federal funding programs that could fund future phases of the project.

Thank you again for your comment.

Air Quality

COMMENT 1

Dave Arndt: We need to electrify everything. Especially trucks, trains and ships. Let's restructure the toll fees on trucks so diesel & gas trucks pay 3x what electric trucks have to pay.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The BRTB works mainly on surface transportation, which doesn't include freight trains and ships. At the State level, there are many regulations and legislation proposed to improve car and truck efficiency and reduce emissions. The Advanced Clean Cars II regulation will require manufacturers to sell 100% zero emission vehicles by 2035. The Advanced Clean Truck rule requires that manufacturers who produce a certain class truck sell zero-emission trucks as an increasing percentage of their Maryland sales up to 2035. To respond to your second point about toll fees, the BRTB does not play a role in toll collection or revenue. The Maryland Transportation Authority (MDTA) facilitates toll collection and toll revenue. Thank you again for your comment.

COMMENT 2

Will Fedder: How can \$7b dollars in highway expansion not worsen air quality, relatively to not doing so?

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The LRTP shows the transportation investments prioritized and funded through the entire Baltimore Region up until 2050. The emissions for the invested projects are modeled, based on a variety of factors. The modeling results show that the projects in the plan do not exceed the National Ambient Air Quality Standards (NAAQS) for pollutants that cause ozone pollution. This happens because of more stringent emission regulations for car manufacturers in the State, and more efficient vehicles. At the State level, there are many regulations and legislation proposed to improve car and truck efficiency and reduce emissions. The Advanced Clean Cars II regulation will require manufacturers to sell 100% zero emission vehicles by 2035. The Advanced Clean Truck rule requires that manufacturers who produce a certain class truck sell zero-emission trucks as an increasing percentage of their Maryland sales up to 2035. Thank you again for your comment.

COMMENT 3

Patrick Ireland: I don't think the highway expansion projects would benefit air quality. Bigger roads means more cars and more pollution. Even the move to electric cars would not be quick enough to mitigate this. The only real solution to improve air quality is to shift to more and better public transit.

Air Quality *(continued)*

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The air quality conformity determination report documents the emissions analysis and methodology as federally required. The Clean Air Act requires Metropolitan Planning Organizations for regions in nonattainment or maintenance of National Ambient Air Quality Standards (NAAQS) to perform technical analyses to demonstrate that regional transportation plans and programs conform to the most recently approved or adequate motor vehicle emission budgets approved by the U.S. Environmental Protection Agency (EPA). The Baltimore Regional Transportation Board does not model emissions for specific projects, but as a region, the emission analysis results are showing pollution levels below the federally approved allowable limits, or budgets. Also, *Resilience 2050* shows investments in transit, bike and pedestrian projects, which will further improve emission reduction efforts. Thank you again for your comment.

COMMENT 4

Hal Alan Long: The urgency of zero carbon by 2050 does not come through with these plans. Transportation is a major factor. There are recommendations for EV buses, and some improvements to mass transport, and some bike lane additions and improvements. But I doubt it is serious enough to get anywhere close to the carbon reduction we will need in the transportation sector.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. Implementing programs and plans to reduce carbon emissions takes coordination and effort among many agencies and groups. The conformity determination document is a federally required document under the Clean Air Act, to show that the transportation plans and programs in nonattainment areas, like the Baltimore region, do not cause new air quality violations, worsen existing violations, or delay timely attainment of the National Ambient Air Quality Standards (NAAQS). The conformity determination report documents criteria pollutants, which doesn't include carbon dioxide. Fortunately, our partners at the state level, including MDE and MDOT are working to decrease emissions. Related to transportation, there are many regulations and legislation proposed to improve car and truck efficiency and reduce emissions. The Advanced Clean Cars II regulation will require manufacturers to sell 100% zero emission vehicles by 2035. The Advanced Clean Truck rule requires that manufacturers who produce a certain class truck sell zero-emission trucks as an increasing percentage of their Maryland sales up to 2035. Thank you again for your comment.

COMMENT 5

Quinlan M: The current realities around climate change require decisive action. These plans do not adequately address air quality in the region. Additionally, current increases in wildfires demonstrate that air quality could become a massive concern very soon. Addressing climate through increased public transit, rail transit, and active transportation is needed to help offset changes in air quality due to climate by reducing Maryland VMT and thereby vehicle emissions.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The air quality conformity determination report documents the emissions analysis and methodology as federally required. The Clean Air Act, as amended in 1990, requires MPOs for regions in ... *[continued]*

Air Quality *(continued)*

[from previous] ... nonattainment or maintenance of National Ambient Air Quality Standards (NAAQS) to perform technical analyses to demonstrate that regional transportation plans and programs conform to the most recently approved or adequate motor vehicle emission budgets approved by the U.S. Environmental Protection Agency (EPA). Regarding your comment about wildfire smoke, we agree that this is a concern. Climate change is exacerbating conditions for wildfires, and increasing particulate matter pollution. Fortunately, related to transportation, we are seeing more stringent emission reduction regulations at the state and federal level for cars and trucks, especially regarding electric vehicles. Additionally, *Resilience 2050* shows investments in transit, bike and pedestrian projects, which will further improve emission reduction efforts. Thank you again for your comment.

COMMENT 6

Andrew S: I have multiple people in my household who fall in the 'sensitive groups' category, and this year's wildfire smoke has made everyday life more challenging for us. But to be honest, we were struggling with the air here before this summer. Consequently, our priority is to see this TIP aim well above its modest goals related to developing projects that realize significant emissions reductions. Electrification facilities, such as upgrading the bus depot on Eastern Avenue in Baltimore City, are excellent investments to that end. So, too, are projects that embed street trees and other 'green' infrastructure that reduces ambient particulate matter into bricks-and-mortar transportation project costs. Greenway construction that offers safe, viable alternatives to motorized transportation is a welcome inclusion too, although details in this plan are much too sparse to take seriously. Our view is that these kinds of projects occupy far too little of the planned investments in the next 5 years. Please step back from this proposal and look forward with a clearer sense of what is needed to address current, but especially future, levels of air pollution and get those projects started sooner than 5+ years from now.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that wildfire smoke is a concern. Climate change is exacerbating conditions for wildfires, and increasing particulate matter pollution. Fortunately, related to transportation, we are seeing more stringent emission reduction regulations at the state and federal level for cars and trucks, especially regarding electric vehicles. Additionally, *Resilience 2050* shows investments in transit, bike and pedestrian projects, which will further improve emission reduction efforts. Maryland has the impressive goal of reducing emissions 60% by 2031 and becoming net zero by 2045. There is coordination between many state and federal agencies to achieve these goals and implement programs and regulations to promote cleaner air and improve air quality. Greenhouse gas emission reductions are proposed for different sectors including buildings, energy, and transportation. The Advanced Clean Cars II regulation will require manufacturers in Maryland to sell 100% zero emission vehicles by 2035. There are some promising regulations happening now and on the horizon to help improve air quality in Maryland. Thank you again for your comment.

COMMENT 7

Sharon Smith: Always concerned about air quality. Studies show higher incidence of Asthma in urban cities which often have larger minority populations.

Air Quality (*continued*)

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The Baltimore region is in nonattainment for the 2015 ozone federal standard. We are aware that high levels of ozone pollution impact vulnerable populations, mostly the elderly and children. Fortunately, there are regulations in place or underway to improve air quality for all Marylanders. The Maryland Department of Environment (MDE) has adopted new regulations for cleaner cars and trucks. The air quality in the Baltimore region is improving. Based on the 2023 Clean Air Report from MDE, all monitors are measuring pollution levels below the National Ambient Air Quality Standards. [Learn more here](#). Thank you again for your comment.

COMMENT 8

Will: If I can follow up RE: air quality & highway widenings, many folks question the predictive power of these travel demand models due to the phenomenon of "induced demand", where vehicle miles traveled increases to offset the travel time savings. Is there empirical evidence that MDOT SHA highway widenings have improved air quality?

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The *Air Quality Conformity Determination* documents regional emissions, not project-level emissions. Also, the model provides outputs for the precursors of ozone, which are NOx and VOCs, because the Baltimore Region is in nonattainment for ozone. The emission results show that VOC and NOx pollution levels decrease in every horizon test year up to 2050. This is attributed to the stringent regulations in place or proposed in Maryland, to help make cars more efficient and less polluting. We believe this comment was asked during the virtual public meeting where we noted that some highway capacity can improve traffic flow, thus reducing emissions from idling. This is one piece of a complicated network and not a blanket solution. Thank you again for your comment.

Emerging Technology

COMMENT 1

Anonymous: nice to see planning but things may change by 2050 with AI and remote work. Most 75% drive alone per census and that will never change. 40 years of work and I rode Mass Transit 3 years out of 40. the rest was driving. I work remote and save 40 hours of time a month. Better to pay a company to have remote work. BTW 695 backs up even on weekends more lanes as planed but when 2025 ? 2027.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. You're certainly right that many factors and trends will affect the regional transportation network and travel patterns by 2050, including AI and remote work. The impacts of these trends remains uncertain, but the BRTB continually monitors these and other trends to monitor potential risks and impacts and identify actions to take. While the specific rates of adoption of remote work may be uncertain, it is clear that working from home is more than a short-lived response to a public health crisis. [Chapter 2](#) of *Resilience 2050* discusses the potential impacts of remote work. We also released a [white paper](#) discussing a variety of demographic trends, including remote work, in more detail. [Chapter 3](#) of *Resilience 2050* discusses additional factors and trends, including a variety of emerging technologies, some of which relate to or utilize AI. Emerging technologies discussed include Mobility on Demand (MOD), micromobility, advanced driver assistance systems and Connected and Automated Vehicles (CAV), Truck Platooning and Personal Delivery Devices. We also released a [white paper](#) discussing these emerging technologies in more detail. Regarding I-695, the short-range *2024-2027 Transportation Improvement Program (TIP)* includes two large-scale beltway projects. The first will utilize the inside shoulder to create a new travel lane on the inner and outer loops during daily peak travel periods from I-70 to MD 43 (western and northern portions of I-695), a distance of 19 miles. The project is anticipated to be complete in 2024. The second project reconstructs the interchange at I-695 and I-70. This project is anticipated to be complete in 2027. You can view these and other projects in the 2024-2027 TIP at <https://baltometro.org/transportation/plans/short-range-transportation-improvement-plan/2024-2027-TIP>. Thank you again for your comment.

COMMENT 2

Joel Hurewitz: The Baltimore Regional Transportation Board's (BRTB) draft *Resilience 2050* Plan needs to include urban air mobility (UAM) and electric vertical takeoff and landing (eVTOL) air taxis. The Plan states on page 37: *Emerging Technologies and Resilience 2050 Technologies are constantly changing and there remains a significant amount of uncertainty surrounding the impact of emerging technologies. As use of these emerging technologies becomes more widespread, we will continue to monitor potential risks and impacts and identify actions to take. Understanding the potential and consequences of technologies is important to help to ensure the region harnesses the positive effects of technology and avoids or minimizes potential negative effects. We must be prepared to face rapid advances and implementation issues while continuing to make investment decisions and develop programs and projects that support a safe, efficient, accessible, equitable and environmentally responsible transportation system for all users.* Our specific actions will include:

- Tracking technology development and deployment within the region, nationally and internationally to understand and plan to take full advantage of the benefits and minimize disadvantages from new and emerging technologies
- Investigating how to use newly available data to enhance transportation planning
- Working with stakeholders, especially elected officials and the public, to manage expectations and perceptions, minimize future problems and leverage opportunities
- Building technical, institutional and policy capacity, and including new partners as necessary
- Working to monitor deployment throughout the region to ensure equitable distribution of the benefits technology can offer

While the Plan has a short discussion about drones, there is no discussion about UAM. This was generally confirmed during discussion with ... *[continued]*

Emerging Technology *(continued)*

[from previous] ... the staff at the Howard County public meeting on June 15, 2023. If BRTB were to follow its own statements on emerging technologies, it would include UAM and eVTOL technologies. Additionally, tracking the regional, national and international developments of UAM would include noticing that

- Blade Air Mobility Inc. and Beta Technologies, in February 2023 flight-tested eVTOLs in the New York City area;
- <https://fortune.com/2023/02/14/flying-taxi-companies-beta-blade-test-flights-nyc/>
- United Airlines announced plans to start eVTOL air taxi service with Archer Aviation in 2025 between the downtown Vertiport Chicago and O'Hare International Airport;
- <https://arstechnica.com/cars/2023/03/united-airlines-reveals-first-evtol-passenger-route-starting-in-2025/>
- on June 14, 2023, United Airlines announced plans to start air taxi service with Eve Air Mobility in San Francisco in 2026; <https://eveairmobility.com/united-airlines-and-eve-air-mobility-collaborating-to-bring-first-electric-commuter-flights-to-san-francisco/>
- Delta Airlines announced plans to provide home-to-airport services with Joby Aviation beginning in New York and Los Angeles;
- <https://news.delta.com/delta-joby-aviation-partner-pioneer-home-airport-transportation-customers>
- eVTOL manufacturers including Archer, Eve, and Joby are exhibiting at the Paris Airshow;
- <https://www.ainonline.com/aviation-news/advanced-air-mobility/2023-06-19/future-fliers-flock-paris>
- eVTOL service is planned for the 2024 Paris Olympics; <https://www.futureflight.aero/news-article/2022-11-10/vertiport-testbed-opens-paris-air-mobility-development-project>
- the State sponsored Maryland Technology Development Corporation (TEDCO), with its office in Columbia, invested in Lusby, Maryland based eVTOL developer Hop Flyt;
- <https://www.tedcmd.com/tedco-backed-hop-flyt-inc-raises-15m-series>.
- in August 2023, the Baltimore Convention Center is hosting the first Federal Aviation Administration (FAA) Advanced Air Mobility Summit; *"Sessions and workshops will focus on how air taxis and electric vertical take-off, and landing (eVTOL) aircraft will change the future of aviation."* <https://www.faa.gov/newsroom/mark-your-calendar-2023-faa-drone-symposium-and-advanced-air-mobility-summit>

The FAA also published proposed rules on June 14, 2023 which include eVTOLs:

Powered-lift will also be utilized to support the deployment of advanced air mobility (AAM) operations. AAM is an umbrella term for an air transportation system that moves people and cargo using revolutionary new aircraft. These aircraft are often referred to as air taxis or electric Vertical Takeoff and Landing (eVTOL) aircraft. Congress has recently directed the Department of Transportation to establish an advanced air mobility working group to plan for and coordinate efforts to integrate advanced air mobility aircraft into the national airspace system through the Advanced Air Mobility Coordination and Leadership Act. This rulemaking is an important step in facilitating the integration of powered lift and AAM into the [National Airspace System].

38946 Federal Register / Vol. 88, No. 114 / Wednesday, June 14, 2023 / Proposed Rules Integration of Powered-Lift: Pilot Certification and Operations;

Miscellaneous Amendments Related to Rotorcraft and Airplanes. <https://www.govinfo.gov/content/pkg/FR-2023-06-14/pdf/2023-11497.pdf>

Furthermore, the FAA released its Urban Air Mobility (UAM) Version 2.0 Concept of Operations April 26, 2023. Therein, it states how local governments and metropolitan planning organizations should prepare:

1.2.3. Vertiport Considerations

State and local governments are being encouraged to actively plan for UAM infrastructure to ensure transportation equity, market choice, and accommodation of demand for their communities. The vertiports and vertistops should be sited to ensure proper room for growth based on FAA evaluated forecasts and be properly linked to surface transportation (when possible), especially if the facility primarily supports cargo operations. Local governments should also have zoning protections in place to protect airspace in and around vertiports and vertistops.

Metropolitan planning organizations, including state and local governments, may incorporate UAM infrastructure planning into larger transportation and utility planning efforts to ensure seamless coverage and capacity. Community engagement and strategic connectivity to larger transportation planning efforts is key to ensuring UAM provides maximum benefits.

Concept of Operations p. 2, https://www.faa.gov/sites/faa.gov/files/Urban%20Air%20Mobility%20%28UAM%29%20Concept%20of%20Operations%202.0_0.pdf

See also "Federal guidelines for eVTOL operations encourage cities to plan for infrastructure" May 16, 2023, <https://www.smartcitiesdive.com/news/federal-faa-guidelines-air-taxi-urban-air-mobility-eVTOL-aircraft/650399/>

Other jurisdictions have done UAM planning. "[T]he Texas Transportation Commission [established] the Urban Air Mobility Advisory Committee 'to assess current state law and any potential changes to state law that are needed to facilitate the development of urban air mobility operations and infrastructure in this state.'" Additionally, one of its functions is to:

- Direct the State to work with municipalities to provide technical assistance to local governments in adapting and integrating urban air ... *[continued]*

Emerging Technology (*continued*)

[from previous] ... mobility/advanced air mobility in their communities.

Report and Recommendations of the Urban Air Mobility Advisory Committee, Executive Summary, <https://ftp.txdot.gov/pub/txdot/avn/uam-report-executive-summary.pdf>

The City of Los Angeles published a UAM report after the release of the FAA's Urban Air Mobility Concept of Operations v1.0, June 26, 2020, which includes:

MULTIMODAL CONNECTIVITY

* * * Connections with Ground Transportation: Vertiport locations should be well-connected with existing and future ground transportation, medical centers, and fulfillment locations. Locations within close proximity to high capacity transit systems, such as Metro Rail and Bus, Metrolink, and Amtrak, should be prioritized.

LAND USE COMPATIBILITY

Current and Potential Land Uses: Vertiport locations should consider what types of land uses may support UAM demand, such as major retail centers, stadiums and arenas, major tourist attractions, higher education campuses, offices, and major transportation facilities. Certain types of land use may be more incompatible with vertiports, such as K-12 schools, and other sensitive uses.

Zoning: DCP can consider which current zoning or new zoning may be needed to allow for vertiport development.

Los Angeles Department of Transportation Urban Air Mobility Policy Framework Considerations September 13, 2021, p. 27. <https://ladot.lacity.org/sites/default/files/documents/ladot-uam-policy-framework-considerations.pdf>

Therefore, the BRTB should do as Texas and Los Angeles have done and follow its own statements on emerging technologies and include UAM in Resilience 2050 Plan. Furthermore, the BRTB and the local governments should take action to include future UAM technologies as part of land use and zoning planning and include future development for UAM in appropriate transit projects; this should include in particular Howard County's Columbia Transit Center which is planned for a location—similar to the land uses enumerated by Los Angeles—near the Mall in Columbia and the Merriweather Post Pavilion.

If you build it, UAM might come. On the other hand, if development is made incompatible with UAM, it might never be a transit option. Sincerely

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. You raise important issues regarding this topic not included in our draft. Although we were not aware of the FAA regulation, the FAA is indeed encouraging State and local governments to actively plan for UAM infrastructure to ensure transportation equity, market choice and accommodation of demand for their communities. The BRTB will add language to [Chapter 3](#) to include these concepts and the importance of working with the FAA to gain an understanding of where vertiports and vertistops could be sited to ensure proper room for growth and how these systems link to our surface transportation network for both passenger and cargo operations.

Thank you again for your comment.

COMMENT 3

Gregory Shafer: The section in Chapter 3 on automated and CAV vehicles fails to recognize that this technology is advancing quickly and will require infrastructure to fully implement. The region will fall behind other areas in realizing the benefits of this technology, if preparations including infrastructure investment are not made early. This is a huge change in transportation modality and will require innovative thought on how to implement and ensure that it's equitably implemented.

I was particularly concerned by the statement that automated vehicles are not anticipated to be available until late in the planning period. This timing is critical to having the infrastructure ready and there is NO basis for the statement on timing. Due to the impact that this technology will have on the transportation system, there is a huge potential for wasted funds on infrastructure that becomes outdated. Therefore, a study should be undertaken by BRTB to anticipate when the technology will be available and what investments will be most promising.

Emerging Technology *(continued)*

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. A comprehensive review on recent advances of CAV technology published in the Journal of Traffic and Transportation Engineering discusses the challenges and uncertainties associated with the implementation of CAVs, including inter-CAV communications, security of CAVs, intersection control for CAVs, collision-free navigation of CAVs, and pedestrian detection and protection. Another study published in Transportation Research Record evaluates the effectiveness of CAVs in a large-scale network by considering both vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication technologies. The study found that the application of CAVs reduced travel time rate significantly compared with the base condition even with a low market penetration level. Additionally, and illustrating the difficulty of implementation, there are significant concerns about the vulnerability of CAVs to cyber-attacks. A study published in Accident Analysis & Prevention discusses the many vulnerabilities and uncertainties in CAVs in terms of cyber-attacks. These challenges and uncertainties suggest that it may take longer for CAV technology to be widely adopted and significant in the region. While we will acknowledge technology is advancing quickly and breakthroughs occur daily it is equally important to note that CAV technologies are vast and evolving and public funds must be used judiciously. The Baltimore Regional Transportation Board (BRTB) recently produced a document entitled *“Connected and Automated Vehicle (CAV) Planning Guide: Recommended Actions for Local Agencies to Prepare for CAVs”* (or the CAV Planning Guide). This guide outlines the potential benefits and challenges of connected and automated vehicles and recommends local, regional and state agency actions to guide CAV implementation to support local and regional goals. The accompanying User Guide for CAV Planning provides a structure that local and regional staff can use to implement the recommended actions over the next 1-2 years. The document and user guide will be available on the BMC website by early August 2023. The BRTB will continue to evaluate the timing and infrastructure investments that make sense for the region. The BRTB is committed to ensuring that the region is prepared for this change in transportation modality while also being responsible with public funds. Thank you again for your comment.

Induced Demand

COMMENT 1

Micah Dezort: The sheer number of projects whose scope includes widening roads is astounding. Claiming these projects have the potential to reduce congestion is disingenuous and is counter productive to the health and safety of this region. The use of traffic models is a technique that is outdated and assumes that car use is a guaranteed fact of life. This plan should be making genuine attempts to reduce the car dependence of the area.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. Current regional scale travel forecasting models are able to simulate some, but not all, elements of induced demand. Our model does recognize that when a roadway is improved, speeds will increase. This will result in more vehicles being attracted to this facility that may result in longer travel distances. The model also has a mode choice module that will look at alternate modes and may shift trips to/from transit or highways depending on the mode (highway or transit) travel time. These effects will show up in the Vehicle Miles Traveled (VMT) figures in [Appendix C](#) of *Resilience 2050*. Increased travel time reliability that induces additional household trip making is not captured in travel models. However, model household behavior trip rates are adjusted with the collection of observed data. Our modeling team continues to review national best practices and will try to include any modeling advancements that may improve our model in these areas. Thank you again for your comment.

COMMENT 2

Reid K: PLEASE take induced demand into consideration and STOP expanding existing roads. Focus instead on expanding public transportation options and improving facilities for pedestrians and cyclists.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. Current regional scale travel forecasting models are able to simulate some, but not all, elements of induced demand. Our model does recognize that when a roadway is improved, speeds will increase. This will result in more vehicles being attracted to this facility that may result in longer travel distances. The model also has a mode choice module that will look at alternate modes and may shift trips to/from transit or highways depending on the mode (highway or transit) travel time. These effects will show up in the Vehicle Miles Traveled (VMT) figures in [Appendix C](#) of *Resilience 2050*. Increased travel time reliability that induces additional household trip making is not captured in travel models. However, model household behavior trip rates are adjusted with the collection of observed data. Our modeling team continues to review national best practices and will try to include any modeling advancements that may improve our model in these areas.

We agree that improving active transportation infrastructure and access to public transit are vital components of the transportation network. *Resilience 2050* includes over \$4.8 billion in funding for transit expansion projects throughout the region. These projects include two major transit corridors, the East-West and North-South Transit Corridors, seventeen transit hubs throughout the region and several new express bus and BRT routes, among others. In addition, nearly 3/4 of the projects in *Resilience 2050* include bicycle and pedestrian facilities as part of their project scope. *Resilience 2050* also includes \$250 million in funding set-aside for strategies improving air quality in the Baltimore region. Sixteen regional bicycle and pedestrian priority projects are included in *Resilience 2050* as part of this set-aside funding (see page 30 of [Chapter 7](#)). And we encourage you to be involved in the Vision for a Regional Bicycle Network project which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022. The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects. Thank you again for your comment.

Induced Demand (*continued*)

COMMENT 3

James Pizzurro: It's my understanding that your modeling for road and highway projects doesn't consider any of the effects of induced demand, and thus roadway widening projects, for example, get points under your scoring rubric for "reducing emissions." Your organization plays an important role in shaping the long-term future of transportation in our region through the prioritization of transportation projects, so it's nothing short of tragic and embarrassing that you do not properly account for all the ways some of these projects further incentivize driving over other modes of transportation, subjecting more people to soul-sucking traffic and congestion more often, and worsening people's quality of life while also further polluting our air. It is critical that you revisit the way such projects are evaluated to properly account for the disproportionate amount of damage they cause. Please lead Baltimore on a path to true sustainability and resiliency; do not be complacent in its further degradation.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. Current regional scale travel forecasting models are able to simulate some, but not all, elements of induced demand. Our model does recognize that when a roadway is improved, speeds will increase. This will result in more vehicles being attracted to this facility that may result in longer travel distances. The model also has a mode choice module that will look at alternate modes and may shift trips to/from transit or highways depending on the mode (highway or transit) travel time. These effects will show up in the Vehicle Miles Traveled (VMT) figures in [Appendix C](#) of *Resilience 2050*. Increased travel time reliability that induces additional household trip making is not captured in travel models. However, model household behavior trip rates are adjusted with the collection of observed data. Our modeling team continues to review national best practices and will try to include any modeling advancements that may improve our model in these areas. Thank you again for your comment.

COMMENT 4

Melanie: The council is aware that induced demand is a well recognized effect of high speed roads, and that road widening with the purpose of improving level of service will only provide short term relief to congestion, and ultimately will lead to higher numbers of cars on the road adding more pollution with a return to similar idling times?

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. Current regional scale travel forecasting models are able to simulate some, but not all, elements of induced demand. Our model does recognize that when a roadway is improved, speeds will increase. This will result in more vehicles being attracted to this facility that may result in longer travel distances. The model also has a mode choice module that will look at alternate modes and may shift trips to/from transit or highways depending on the mode (highway or transit) travel time. These effects will show up in the Vehicle Miles Traveled (VMT) figures in [Appendix C](#) of *Resilience 2050*. Increased travel time reliability that induces additional household trip making is not captured in travel models. However, model household behavior trip rates are adjusted with the collection of observed data. Our modeling team continues to review national best practices and will try to include any modeling advancements that may improve our model in these areas. Thank you again for your comment.

Induced Demand *(continued)*

COMMENT 5

Nick Snider: It has been mentioned that the current plans to not have any indication or mention of induced demand, however I feel that is an important point to note and question.

Overall: Roadway expansion should be among the lowest priorities, with a focus more on public transit and sustainable growth in ways that align to regulations such as the City of Baltimore's "Complete Streets" and other similar policies that require a re-examination of existing roads, highways, and car-centric avenues to modernize and be more pedestrian, transit, and alternative transportation option friendly, and encourage safety through decreased speeds to align to Vision Zero aspirations.

Maryland has the opportunity to lead the way in becoming a transit-forward state to reduce reliance on cars and increase equity and the ability for residents and visitors to get around without needing automobiles. Our plans should reflect these aspirations and goals.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. Current regional scale travel forecasting models are able to simulate some, but not all, elements of induced demand. Our model does recognize that when a roadway is improved, speeds will increase. This will result in more vehicles being attracted to this facility that may result in longer travel distances. The model also has a mode choice module that will look at alternate modes and may shift trips to/from transit or highways depending on the mode (highway or transit) travel time. These effects will show up in the Vehicle Miles Traveled (VMT) figures in [Appendix C](#) of *Resilience 2050*. Increased travel time reliability that induces additional household trip making is not captured in travel models. However, model household behavior trip rates are adjusted with the collection of observed data. Our modeling team continues to review national best practices and will try to include any modeling advancements that may improve our model in these areas.

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And we encourage you to be involved in the Vision for a Regional Bicycle Network project which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022. The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects.

Thank you again for your comment.

Less Highway

COMMENT 1

Anonymous: As an extremely car-centric city, Baltimore is way behind. We need more and better bike and pedestrian infrastructure and improved rapid transit (subway and light rail). Dedicated bus lanes do not cut it. In general, de-prioritizing car culture is necessary for making Baltimore a 21st century city.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. In addition, Baltimore City is committed to growing a multi-modal transportation network that includes a wide array of bicycle and pedestrian facilities, transit-oriented development and enhancements to transit infrastructure. Baltimore City has been actively planning, designing and constructing protected bike lanes and multi-use paths with the goal of creating a multimodal network that serves all road users per the City's Complete Streets Manual. This network will expand over time as the City continues to pursue funding for implementation.

Supporting transit is evidenced by the Baltimore Regional Transit Governance and Funding Workgroup, established July 2022 by BMC's Board of Directors with the objective of preparing recommendations regarding the management of transit in the Baltimore region.

The Workgroup held four meetings from September to December 2022 and based their work on the BRTB's extensive 2021 analysis of this issue. The Workgroup considered the alternatives from the original study, and compared peer state and regional transit entities.

Each meeting was open to interested groups and individuals and included opportunities to provide comments both virtually and in-person. Prior to the creation of the final report, members of the public were invited to comment on a set of draft-final recommendations.

The Workgroup ultimately developed consensus around a set of five [recommendations](#) for timely action by our local governments, the Maryland General Assembly and the Moore-Miller administration. Out of that work, the MD General Assembly in the 2023 legislative session approved [HB0794](#) / [SB0504](#) - Baltimore Regional Transit Commission. This new Commission is expected to begin work in October 2023.

Thank you again for your comment.

COMMENT 2

Anonymous: We need to address car congestion not by expanding roads (which only leads to more drivers and then more traffic) but rather by expanding other forms of non-car transportation — light rail, subway, reliable and frequent buses.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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Less Highway *(continued)*

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COMMENT 3

Anonymous: This once again reflects no community feedback and drives us on expanded highways straight into a climate crisis. We need extreme investments in public transportation in lieu of road widening.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond. Supporting transit is evidenced by the Baltimore Regional Transit Governance and Funding Workgroup, established July 2022 by BMC’s Board of Directors with the objective of preparing recommendations regarding the management of transit in the Baltimore region. The Workgroup held four meetings from September to December 2022 and based their work on the BRTB’s extensive 2021 analysis of this issue. The Workgroup considered the alternatives from the original study, and compared peer state and regional transit entities. Each meeting was open to interested groups and individuals and included opportunities to provide comments both virtually and in-person. Prior to the creation of the final report, members of the public were invited to comment on a set of draft-final recommendations. The Workgroup ultimately developed consensus around a set of five [recommendations](#) for timely action by our local governments, the Maryland General Assembly and the Moore-Miller administration. Out of that work, the MD General Assembly in the 2023 legislative session approved [HB0794](#) / [SB0504](#) - Baltimore Regional Transit Commission. This new Commission is expected to begin work in October 2023. Thank you again for your comment.

COMMENT 4

Anonymous: Please stop expanding the roads. Just build reliable mass transit it'll take people off the roads and make people less reliant on cars. If you want to see where widening highways leads look at Los Angeles. It's the poster child of sprawl. Denser walkable cities are the way forward not bigger highways.

Less Highway *(continued)*

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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Thank you again for your comment.

COMMENT 5

Anonymous: Better and more reliable public transit over highway widening should be the emphasis. More quality light rail options (think Amsterdam) over busses would be a huge opportunity to increase ridership and make getting around Baltimore City much easier. Regional light rail transit from downtown centers would also be huge.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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Less Highway *(continued)*

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COMMENT 6

Anonymous: I believe more mass transit should be the focus for the future. Population growth will only continue and highways can only expand so much.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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Thank you again for your comment.

COMMENT 7

Dave Arndt: No more road expansion. Create bike lanes. Let's remove greenhouse gases caused by transportation.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became ... *[continued]*

Less Highway *(continued)*

[from previous] ... eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

In addition, nearly 3/4 of the projects in *Resilience 2050* include bicycle and pedestrian facilities as part of their project scope. *Resilience 2050* also includes \$250 million in funding set-aside for strategies improving air quality in the Baltimore region. Sixteen regional bicycle and pedestrian priority projects are included in *Resilience 2050* as part of this set-aside funding (see page 30 of [Chapter 7](#)).

We encourage you to be involved in the Vision for a Regional Bicycle Network project which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022. The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects. Thank you again for your comment.

COMMENT 8

Dave Arndt: We need to move away from a car centric model and think mass transit, walking, bikes and scooters. Plus we need to concentrate on making mass transit reliable, today many people would like to use the bus system for work, however they can not because it is not dependable.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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Regarding transit reliability, there are several ongoing MDOT MTA bus projects to increase bus reliability, speed and passenger safety throughout the core bus system. Potential targeted investments to the roadway that prioritize transit riders include curb-extensions at bus stops, transit signal priority, dedicated bus lanes, queue jumps, and more. Current corridor efforts include the RAISE Transit Priority Project (CMS to Fox Ridge), Garrison Boulevard, and the Belair Rd Gay St corridor.

MTA's Fast Forward Program is investing \$43 million in our core service area by accelerating projects that create a transit system that is more reliable, accessible, and easier to use. Investments include bus stops and shelters, wayfinding, real-time information signs, and dedicated bus lanes. ... *[continued]*

Less Highway *(continued)*

[from previous] ...Three pilot dedicated bus lanes were installed on York Road, Harford Avenue, Charles/Light Street to bring quick improvements to riders. We also encourage you to be involved in the Vision for a Regional Bicycle Network project which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022. The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects. Thank you again for your comment.

COMMENT 9

Spencer B: I very much support creating a protected bike lane along Falls Road. It is frustrating that the one that is there cuts off and the existing road, Clipper Mill Road, is incredibly dangerous to bike on. It would also be great to expand the number of protected bike lanes throughout the city. I would like Baltimore City to focus on expanding public transportation, pedestrian zones, and bike lanes instead of roadways. We need to move forward in a more sustainable and accessible direction. The light rail is great but needs to be expanded to accommodate more areas and people.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. Regarding bicycle infrastructure, Baltimore City is committed to increasing the viability of sustainable transportation alternatives by continually growing its network of protected bike facilities, which can help reduce dependence on driving. This network will expand over time as the City continues to pursue funding for implementation. Supporting transit is evidenced by the Baltimore Regional Transit Governance and Funding Workgroup, established July 2022 by BMC's Board of Directors with the objective of preparing recommendations regarding the management of transit in the Baltimore region. The Workgroup held four meetings from September to December 2022 and based their work on the BRTB's extensive 2021 analysis of this issue. The Workgroup considered the alternatives from the original study, and compared peer state and regional transit entities. Each meeting was open to interested groups and individuals and included opportunities to provide comments both virtually and in-person. Prior to the creation of the final report, members of the public were invited to comment on a set of draft-final recommendations. The Workgroup ultimately developed consensus around a set of five [recommendations](#) for timely action by our local governments, the Maryland General Assembly and the Moore-Miller administration. Out of that work, the MD General Assembly in the 2023 legislative session approved [HB0794](#) / [SB0504](#) - Baltimore Regional Transit Commission. This new Commission is expected to begin work in October 2023. Thank you again for your comment.

COMMENT 10

Yuki C: I am disappointed in how many of the transit projects are pushed 25 years out. Baltimore is already struggling to keep up with its neighbors let alone the nation, and widening highways, especially without accounting for induced demand, is not the future. We need to be on top of more rail and bus projects to be able to compete in the next part of the 21st century. Baltimore has the bones to make transit work, the streetcar system of long ago and more modern plans like the 2002 rail plan are proof that the potential is there, we just need to act on it. This region will never keep up without it. We don't need to become Texas with highways, we need to become something better.

Less Highway *(continued)*

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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Thank you again for your comment.

COMMENT 11

Henry Cook: I have read through the *Resilience 2050* document and I find it to be a very long, very detailed document that is utterly demoralizing for anyone that wishes to address the emerging impacts of climate change in a resilient manner. I view this overall document is a dramatic missed opportunity to talk about resilient adaptations that our region must undertake to mitigate and begin to turn around carbon-induced climate change. After embarking on a year-long white paper effort to study what transportation should look like by 2050, BRTB has determined that the majority of spending must go not only to automobile-centered transportation, but also calls for more and more increased capacity to further sprawl.

Furthering my disappointment, BRTB fails to meaningfully engage with well-documented causes of congestion and sprawl, such as excessive parking requirements and exclusionary zoning.

BRTB has hyped up how this long range plan has significantly more transit spending programmed than past plans, but it is still a focus on enormous capital projects that will take decades to realize. While we wait decades for a large capital investment in public transportation, we will burn piles of cash on "highway capacity expansion" that is wasteful, counter-productive, and only adds to our automobile dependence. Somehow, a plan called "Resilience 2050" includes Technical Scoring that awards points for Greenhouse Gas Emission Inducing Projects! (Ref Appendix B, Table 2, page 10, where "A majority of emissions inducing components = 1 point"). A responsible long range plan would subtract points for projects that induce greenhouse gas emissions or are projected to increase VMT.

Although I unfortunately acted too late to make the co-sign period with the Strong Towns Baltimore letter, I definitely support the comments included in that document. Michael Scepaniak and company have done a more thorough job than I could given the short time period and the exceptionally long document. In closing, this plan would have been progressive and forward-looking a decade ago, but in 2023 we have so many other examples of truly forward-looking global cities that are changing their transportation system away from failed private vehicle priorities, this plan is simply not enough to keep our region competitive. We must do better and stop wasting precious capital funding on highway expansion!

Less Highway *(continued)*

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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Thank you again for your comment.

COMMENT 12

Anna Ellis: This looks to be more of the same - mostly highway expansion. For the last 60+ years, we have built and/or widened highways, and yet traffic keeps getting worse. We need transit as an alternative to driving.

I see in Table 7 of the executive summary that there is a planned mid-life overhaul of light rail vehicles planned for 2028-2039. There has been a mid-life light rail overhaul going on for at least the last 5 years. Also, Table 9 shows a planned replacement of light rail vehicles in 2040-2050. My understanding was that the process to replace light rail vehicles is in the early stages, not almost 20 years away.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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Each meeting was open to interested groups and individuals and included opportunities to provide comments both virtually and in-person. ... *[continued]*

Less Highway *(continued)*

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Regarding your comments on the mid-life overhaul and replacement of light rail vehicles, the timelines included in *Resilience 2050* reflect those originally submitted by MDOT MTA during the call for projects in 2022. MDOT MTA is continuing work on the mid-life overhaul and plans to complete it as soon as 2024, with warranty work continuing through at least 2027. Thus, it is possible that the overhaul will be complete prior to the 2028-2039 time period. A new fleet of light rail vehicles could begin coming online as soon as 2030, depending on funding availability. While new vehicles could begin coming online prior to the 2040-2050 time period, the timeframe listed reflects completion of the conversion to low-floor rail vehicles. Completion of the fleet replacement with low-floor rail vehicles will require significant additional funding including station retrofits, modifying maintenance facilities and amending standard operating practices. Future LRTP updates will incorporate adjustments to the anticipated timeline for replacing the light rail vehicle fleet as the project progresses.

Thank you again for your comment.

COMMENT 13

Matt Francis: In reviewing the goals of the *Resilience 2050*, they are admirable objectives to achieve, but I am left concerned that mistakes that we as a society have made in the past will be repeated. The priority above all else should be to maintain and expand public transport and pedestrian/cycling infrastructure. In addressing the Zero Deaths Maryland objective, the only way to achieve this is to reduce car usage as cars are the primary cause of vehicular and pedestrian deaths on our streets. Including items like road and freeway expansion in the long term plans of the Baltimore area does not reflect the goal of having zero deaths on our roads. Increasing the number of lanes on roads will encourage speeding and dangerous driving as many studies have demonstrably shown. Increasing the number of lanes does not solve the problem of traffic either. It creates an induced demand where people take more car trips and feel okay living in even more remote locations. The increased lane is quickly absorbed and the traffic problem still persists. The only way to decrease traffic is to increase the abundance of alternative methods of travel. This is a two fold benefit as it pulls cars off the road and prevents the need to expand our road infrastructure further. Reducing car dependency is also key to achieving the regions goal to provide a more environmentally sustainable society. The highways that have destroyed large swaths of the Baltimore area have allowed severe sprawl to damage our city and cause large amounts of pollution and environmental harm. The reliance on cars has also had secondary effects on our health by encouraging a lack of physical movement (no walking or biking) along with the direct air pollution that cause severe health issues.

The average American now spends approximately \$10,000 a year on their automobile. From an equity standpoint, this cost is the largest burden on the poor and disenfranchised (and increasingly on the middle class) in our society as the car centric infrastructure Baltimore has built over the past 70 years forces people to pay this cost in order to participate in the economy thereby continuing the cycle of poverty. If people were able to walk, bike or take public transport this can help break that cycle and the money originally spent on cars would be able to be used in the local economy to a greater degree lifting the region as a whole.

I do appreciate that there is increased focus on biking, walking and public transport infrastructure in this plan which will increase the quality of life for the citizens of the Baltimore metropolitan area. To reiterate my original fear it seems that whenever these types of improvements are put forth they get scrapped or reduced in scope due to demands that larger and larger roads and highways are provided regardless of the harm these roads cause economically and socially. One more lane will not fix our traffic problem, EV cars will not fix our climate problem and in order to achieve Zero Deaths we must provide safer and greener forms of travel.

Thank you for your consideration. I look forward to seeing how *Resilience 2050* is implemented in the years to come.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became ... *[continued]*

Less Highway *(continued)*

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And we encourage you to be involved in the Vision for a Regional Bicycle Network project which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022.

The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects.

Regarding induced demand, current regional scale travel forecasting models are able to simulate some, but not all, elements of induced demand. Our model does recognize that when a roadway is improved, speeds will increase. This will result in more vehicles being attracted to this facility that may result in longer travel distances. The model also has a mode choice module that will look at alternate modes and may shift trips to/from transit or highways depending on the mode (highway or transit) travel time. These effects will show up in the Vehicle Miles Traveled (VMT) figures in [Appendix C of Resilience 2050](#). Increased travel time reliability that induces additional household trip making is not captured in travel models. However, model household behavior trip rates are adjusted with the collection of observed data. Our modeling team continues to review national best practices and will try to include any modeling advancements that may improve our model in these areas.

Transportation Demand Management (TDM) strategies focus on understanding how people make their transportation decisions and influencing people's behavior to use existing infrastructure in more efficient ways, working to reduce single occupancy vehicle trips and getting people to use transit, ridesharing, walking, biking, and telework. State and federal funding supports transit, guaranteed ride home, rideshare services, as well as commuter tax credits through employers.

Thank you again for your comment.

COMMENT 14

Bakari H: Why is there very little going to transit? This will not make Maryland competitive with any other state if you don't expand your transit system.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit ... *[continued]*

Less Highway *(continued)*

[from previous] ... and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond. Supporting transit is evidenced by the Baltimore Regional Transit Governance and Funding Workgroup, established July 2022 by BMC’s Board of Directors with the objective of preparing recommendations regarding the management of transit in the Baltimore region. The Workgroup held four meetings from September to December 2022 and based their work on the BRTB’s extensive 2021 analysis of this issue. The Workgroup considered the alternatives from the original study, and compared peer state and regional transit entities. Each meeting was open to interested groups and individuals and included opportunities to provide comments both virtually and in-person. Prior to the creation of the final report, members of the public were invited to comment on a set of draft-final recommendations. The Workgroup ultimately developed consensus around a set of five [recommendations](#) for timely action by our local governments, the Maryland General Assembly and the Moore-Miller administration. Out of that work, the MD General Assembly in the 2023 legislative session approved [HB0794](#) / [SB0504](#) - Baltimore Regional Transit Commission. This new Commission is expected to begin work in October 2023. Thank you again for your comment.

COMMENT 15

Bakari H: Put more transit in here. Maryland needs to start future-proofing its transportation system and that includes transit. Not roads.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond. Supporting transit is evidenced by the Baltimore Regional Transit Governance and Funding Workgroup, established July 2022 by BMC’s Board of Directors with the objective of preparing recommendations regarding the management of transit in the Baltimore region. The Workgroup held four meetings from September to December 2022 and based their work on the BRTB’s extensive 2021 analysis of this issue. The Workgroup considered the alternatives from the original study, and compared peer state and regional transit entities. Each meeting was open to interested groups and individuals and included opportunities to provide comments both virtually and in-person. Prior to the creation of the final report, members of the public were invited to comment on a set of draft-final recommendations. The Workgroup ultimately developed consensus around a set of five [recommendations](#) for timely action by our local governments, the Maryland General Assembly and the Moore-Miller administration. Out of that work, the MD General Assembly in the 2023 legislative session approved [HB0794](#) / [SB0504](#) - Baltimore Regional Transit Commission. This new Commission is expected to begin work in October 2023. Thank you again for your comment.

Less Highway *(continued)*

COMMENT 16

David Highfield: As well as highway safety and bridge repair, I believe that prosperity, economic opportunity, and public service could be better accomplished by expanding Baltimore Metro and/or Light Rail into Carroll County (Finksburg area) and having it extend and connect directly to BWI Airport and Rail Station.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The policy of Carroll County, through the adopted plans and Board of County Commissioners' resolutions, has always been to provide transit services only within the County. There are currently no plans to expand this type of service outside of the County. The most recent Transit Development Plan (TDP), which provides a plan for public transportation improvements in the County over a five year period, reinforced this policy.

Thank you again for your comment.

COMMENT 17

David House: I appreciate the effort that has gone into this planning document and on collecting public comment. However I take issue with some of the outlined plans and goals. First, any highway expansion in this region is a waste of money. We have all the roads we could ever need and then some. The only way to ease congestion in this region is to increase options for public transit, cycling and walking. If we really want to address air quality in this region, more capacity for cars is not the way to go.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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Thank you again for your comment.

Less Highway *(continued)*

COMMENT 18

Tim Hreha: Maximize investment in protected bike lanes and multi-use paths to create a city-wide network that connects with existing surrounding infrastructure. Minimize investment in automobile infrastructure.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. Regarding bicycle infrastructure, Baltimore City has been actively planning, designing and constructing protected bike lanes and multi-use paths with the goal of creating a multimodal network that serves all road users per the City's Complete Streets Manual. This network will expand over time as the City continues to pursue funding for implementation. We also encourage you to be involved in the Vision for a Regional Bicycle Network project which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022. The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects. Thank you again for your comment.

COMMENT 19

Patrick Ireland: Generally I am disappointed by majority of the projects focused road expansion and road capacity increase. That does not seem to be the best way to reduce congestion and travel time, nor would it improve environmental impacts. With the additional noise and air pollution related to the increased volume of traffic (wider roads means more and higher speed traffic), this is not a sustainable solution. More focus should be put on public transit project expansion and improvement. Reducing the number of trips needed to be taken by car is the real only long term sustainable solution.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond. Supporting transit is evidenced by the Baltimore Regional Transit Governance and Funding Workgroup, established July 2022 by BMC's Board of Directors with the objective of preparing recommendations regarding the management of transit in the Baltimore region. The Workgroup held four meetings from September to December 2022 and based their work on the BRTB's extensive 2021 analysis of this issue. The Workgroup considered the alternatives from the original study, and compared peer state and regional transit entities. Each meeting was open to interested groups and individuals and included opportunities to provide comments both virtually and in-person. Prior to the creation of the final report, members of the public were invited to comment on a set of draft-final recommendations. The Workgroup ultimately developed consensus around a set of five [recommendations](#) for timely action by our local governments, the Maryland General Assembly and the Moore-Miller administration. Out of that work, the MD General Assembly in the 2023 legislative session approved [HB0794](#) / [SB0504](#) - Baltimore Regional Transit Commission. This new Commission is expected to begin work in October 2023. Thank you again for your comment.

Less Highway *(continued)*

COMMENT 20

Nathan Kalasky: *Resilience 2050* is a step in the right direction, with an unprecedented amount of funding allotted to transit projects across the region, but still allocates billions of dollars to suburban road construction and expansion. This is antithetical to the region's sustainability goals. The current preferred alternative suggests stagnant transit modeshare while VMT will increase by 19%. Reducing vehicle miles traveled and increasing the transit mode share substantially need to be prioritized in the plan. The Minnesota Department of Transportation's 2050 plan reduces VMT per capita by 20%, which is projected to save the state \$91bn over 30 years. The Baltimore region should embrace a similar goal. The region cannot afford to keep subsidizing unsustainable suburban sprawl, and a system preservation and transit first approach is the path forward.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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Regarding a VMT reduction goal, neither the BRTB nor MDOT have a stated VMT goal. However, local and state partners are working toward slowing VMT growth or reducing it by means of Transportation Demand Management (TDM) strategies. TDM focuses on understanding how people make their transportation decisions and influencing people's behavior to use existing infrastructure in more efficient ways, working to reduce single occupancy vehicle trips and getting people to use transit, ridesharing, walking, biking, and telework. State and federal funding supports transit, guaranteed ride home, rideshare services, as well as commuter tax credits through employers.

Thank you again for your comment.

COMMENT 21

John L: Give me other options besides sitting in soul-crushing traffic on a newly-widened highway or road, please. Devote real resources and manpower to helping us decouple from the automobile-centric patterns of sprawling, soulless, inefficient development. Walking is transportation, so is biking- fund projects that make our neighborhoods better and healthier places to work and live.

Less Highway *(continued)*

RESPONSE

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COMMENT 22

John L: I appreciate the heady words devoted to some admirable (non-automobile centric) goals within this plan, but I am afraid that we will once again surrender to the siren song of highway widening and induced demand when it comes time to make decisions and move out with action. Please, commit to decoupling our region from the dead end road of car-centric development with real action when it matters, otherwise we will continue to lose out in the competition for new residents and jobs to other regions with real transit networks.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond. Supporting transit is evidenced by the Baltimore Regional Transit Governance and Funding Workgroup, established July 2022 by BMC's Board of Directors with the objective of preparing recommendations regarding the management of transit in the Baltimore region. The Workgroup held four meetings from September to December 2022 and based their work on the BRTB's extensive 2021 analysis of this issue. ... *[continued]*

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Thank you again for your comment.

COMMENT 23

Quinlan M: The disparity in TIP funding between MDOT SHA and MDOT MTA is hard to believe. Similar to the LRTP, the TIP is misaligning priorities with the challenges and needs faced by the state in the future. Environmental concerns, active transportation concerns, equity concerns—these are all underrepresented. Mass transit projects are underrepresented. Highway capacity projects are over-represented. Additionally, the Red Line project has been identified as a specific priority of the Moore administration. The 2024-2027 TIP needs to reflect projections for the Red Line project and its federal funding needs.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

Regarding the inclusion of the Red Line project in the TIP, *Resilience 2050*, the long-range transportation plan, includes funding for the East-West Transit Corridor. This project is now being referred to as the Red Line by MDOT and MTA. A [Red Line website](#) has been created to share progress with the public. The TIP can only include projects that have been allocated federal funding over the next four fiscal years in a capital budget such as the MDOT Consolidated Transportation Program. Inclusion in the LRTP allows the Red Line to move forward with planning and NEPA. When the Red Line is allocated federal funding it will be added to the TIP via amendment or in the next annual update of the document. The LRTP also includes \$2 billion in funding for an additional early opportunity corridor, the North-South Transit Corridor.

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COMMENT 24

Quinlan M: Mass rail transit is significantly underrepresented in the LRTP, Resilience 2050. In reviewing Resilience 2050 it appears that the primary vision for transit in the Baltimore region for the next 30 years is buses, benches and signs... Please reallocate greater portions of funding to transit expansion projects, identified early opportunity regional transit corridors, the creation of transit hubs, transit system preservation projects, and increased funding for LOTS, which provide crucial services to local communities. Additionally, the revived Red Line project needs to be included in this plan before it is approved. Given our climate and conservation crisis, equity needs, and changing societal values, we don't have time for the vision of a lagging document. We need Resilience 2050 to meet the moment right now and be responsive to Maryland's present priorities. The BRTB is aware of Governor Moore's transportation priorities and should not willfully exclude a projection for the Red Line transit expansion project within this current document. Additionally, please reconsider the preponderance of highway widening projects in this plan. VMT has been increasing in Maryland over time, and this plan directly encourages a continued rise in that statistic do to an overabundance of highway widening projects.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond. Funding for the Red Line is included in *Resilience 2050* under the East-West Transit Corridor project (see project ID 9 in [Chapter 7](#)). Given the Governor's recent announcement, the final document will include a note stating that the East-West Transit Corridor is now known as the Red Line. *Resilience 2050* also includes funds for another major Early Opportunity Corridor, the North-South Transit Corridor. *Resilience 2050* includes a total of over \$3.8 billion in funding for these two major transit corridors. As you note, the LRTP also includes funds for seventeen transit hubs throughout the Baltimore region, among other transit investments. *Resilience 2050* is a living document that can be amended to reflect updated project information (estimated cost, scope, etc.) as projects move forward in the planning process. Identifying projects in the LRTP allows projects to progress through required National Environmental Policy Act (NEPA) planning efforts that will determine details on the projects. Supporting transit is evidenced by the Baltimore Regional Transit Governance and Funding Workgroup, established July 2022 by BMC's Board of Directors with the objective of preparing recommendations regarding the management of transit in the Baltimore region. The Workgroup held four meetings from September to December 2022 and based their work on the BRTB's extensive 2021 analysis of this issue. The Workgroup considered the alternatives from the original study, and compared peer state and regional transit entities. ... *[continued]*

Less Highway *(continued)*

[from previous] ...Each meeting was open to interested groups and individuals and included opportunities to provide comments both virtually and in-person. Prior to the creation of the final report, members of the public were invited to comment on a set of draft-final recommendations. The Workgroup ultimately developed consensus around a set of five [recommendations](#) for timely action by our local governments, the Maryland General Assembly and the Moore-Miller administration. Out of that work, the MD General Assembly in the 2023 legislative session approved [HB0794](#) / [SB0504](#) - Baltimore Regional Transit Commission. This new Commission is expected to begin work in October 2023. Thank you again for your comment.

COMMENT 25

Daniel Paschall, East Coast Greenway Alliance: Please prioritize sustainable transportation investments over roadway expansion with new transit investment and first-/last-mile bike and pedestrian connections. In particular please prioritize the advancement of the Regional Bicycle and Pedestrian Priorities along the East Coast Greenway, namely the South Shore Trail, the Torrey C. Brown/NCR Trail Connections to the Jones Falls Trail, the MA & PA Trail Connection between Towson and Bel Air, the Baltimore Greenway Trail Network, and completing the gaps along the East Coast Greenway between the BWI Trail and South Baltimore's Middle Branch Trail on both sides of the Patapsco River, filling the gaps between the B&A Trail and downtown Annapolis, the WEE Trail, and the South Shore Trail, and creating off-road biking and walking connections in Harford County between Bel Air, Havre de Grace, and the US-40 corridor to expand on the US-40 sidepath plan between HDG and Aberdeen. Finally, please prioritize the advancement of a bike and pedestrian crossing of the Susquehanna River between Havre de Grace and Perryville along the Lower Susquehanna Heritage Greenway, the East Coast Greenway, and the September 11th National Memorial Trail.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*.

Regarding the advancement of regional bicycle and pedestrian priority projects (included in the \$250 million in set-aside funding detailed in [Chapter 7](#)), we encourage you to be involved in the Vision for a Regional Bicycle Network project which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022. The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects. Thank you again for your comment.

COMMENT 26

Charlie Smith: I appreciate you opening the most recent TIP and *Resilience 2050* plan to comment.

By ignoring additional transit capacity, the TIP in its current form does a huge disservice to the region. Transit capacity, or the lack thereof, consistently cooked up as a roadblock to growth in the Baltimore region. Major employers and events pass us over due to a lack of transit capacity.

While *Resilience 2050* includes funding for transit capacity, adding even more funds for road capacity will only make our roads worse. More roads will attract more drivers - and more traffic, adding to congestion and pollution. Better transit options and funding are critical to actually changing this environment.

And while *Resilience 2050* does include over \$4 billion in potential transit capacity projects, that is outweighed by over \$7 billion in new roads and highways. According the plan's own modeling of the outcomes of this sort of spending plan, this will only make our region's transportation outcomes worse: more driving, more time spent in traffic and no increase in transit ridership.

Baltimore and its region is desperate for transit leadership. Please don't pass the buck to yet another generation. Let's get this done.

Less Highway *(continued)*

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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Each meeting was open to interested groups and individuals and included opportunities to provide comments both virtually and in-person. Prior to the creation of the final report, members of the public were invited to comment on a set of draft-final recommendations.

The Workgroup ultimately developed consensus around a set of five [recommendations](#) for timely action by our local governments, the Maryland General Assembly and the Moore-Miller administration. Out of that work, the MD General Assembly in the 2023 legislative session approved [HB0794](#) / [SB0504](#) - Baltimore Regional Transit Commission. This new Commission is expected to begin work in October 2023.

Regarding the lack of transit in the TIP, MTA is leading multiple efforts to expand the current transit system. The Regional Transit Plan, published in 2020, identified thirty corridors to be studied. Each corridor has or is projected to have sufficient ridership demand to support all-day, frequent transit and would require additional infrastructure investment to fully support successful transit. Additional study is needed to determine mode, specific route or alignment, levels of service and station locations. Investments may include dedicated right-of-way, signal priority, shelters or stations and other customer amenities.

Additionally, in certain corridors, transit supportive land use patterns controlled by local jurisdictions would play a critical role to make future transit successful. Currently, MTA is advancing the Red Line, which will provide an essential east-west connection from Woodlawn to Bayview with the potential for expansion to eastern Baltimore County. The North-South Corridor Study is evaluating existing and future transit demand between Towson and Downtown Baltimore. Baltimore Metropolitan Council is leading a pilot feasibility study for mid-opportunities corridors like BWI Airport to Columbia Town Center. As projects move forward and are allocated federal funds, they will be amended into the TIP or added as part of the next annual update of the TIP.

The short- and long-range transportation plans also both support state of good repair for transit. In addition to the match to federal money, Maryland devotes a considerable amount of state money to transit that is not reflected in these documents. State funds support both MTA and locally operated transit systems. Thank you again for your comment.

COMMENT 27

Sharon Smith: The plan appears to be very comprehensive and inclusive. I agree that road expansions should be secondary to transit expansion.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that ... *[continued]*

Less Highway *(continued)*

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Thank you again for your comment.

COMMENT 28

Nick Snider, Ross Medico, Kim Dulay, Ramie Mays, Phil Sherer, Charles McManus, Amy Sheridan, Logan Shertz, Brian O'Malley, Ian Fitzpatrick, Jeenly Louis, Brandy Savarese, Bill Humphrey, Alex Walinskas, Jo'Elie Louis: Dear BRTB Members: Thank you for the opportunity to comment on the 2024 - 2027 Transportation Improvement Program (TIP) and the region's long-range plan, *Resilience 2050*.

Unfortunately, both plans are woefully inadequate for meeting the region's transportation, economic, and environmental challenges and will, in fact, exacerbate them. The TIP proposes to spend over \$900 million to widen roads and highways, while spending nothing on additional transit or commuter rail capacity. And while *Resilience 2050* does include over \$4 billion in potential transit capacity projects, that is outweighed by over \$7 billion in new roads and highways. According the plan's own modeling of the outcomes of this sort of spending plan, this will only make our region's transportation outcomes worse: more driving, more time spent in traffic and no increase in transit ridership.

There are many worthy projects the BRTB could be funding instead of widening highways, including:

- Increase the number of bus stops that comply with the Americans with Disabilities Act (currently only about 19% do)
- Make transit faster and more reliable in the eleven Early Opportunity Corridors identified in the 2020 Central Maryland Regional Transit Plan
- Make transit safer and more reliable by funding the backlog of state of good repair needs at the MTA that are listed in the MTA Capital Needs Inventory
- Fund the backlog of road and highway state of good repair needs before building more expansions

Our region deserves better. We've been splurging on spreading asphalt for too long while our transit, biking, and walking infrastructure lags behind. We need real leadership to step up and change our transportation trajectory. Please re-balance the spending priorities in these plans so that highway capacity projects are minimized and investments in transit, biking, and walking are maximized.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit ... *[continued]*

Less Highway *(continued)*

[from previous] ... and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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The short- and long-range transportation plans both support asset management (for roads) and a state of good repair (for transit). In addition to the match to federal money, Maryland devotes a considerable amount of state money to transit that is not reflected in these documents. State funds support both MTA and locally operated transit systems.

Thank you again for your comment.

COMMENT 29

willy: I disapprove on any roadway lane expansion since it will only create more car traffic congestion even more. I rather use that money in maintaining the roads we have now and definitely more on public transportation in Maryland/ DMV area. We must wean ourselves from car dependence and create a more options people can get around. I prefer Project 44 for a light rail infrastructure connecting Towson to the Baltimore city (hoping it can stop at Penn Station) and the West East, Project 9. While I do commute to Annapolis from Towson, again I disapprove of road expansion in Project 48. It's worse now for the few pedestrians and cyclists now and it'll be more deadlier if it widens for more traffic and higher speeds potentially causing more accidents. It'll be worst for the residents and businesses there since basically a 6 lane highway will cut through it. We do need better public transportation options going to Annapolis though and can potentially bring in more people and thus commerce into the capital.

While Project 29 BRT is a good idea but I feel making improvements to the light rail/ metro line there would be better investment in the long term. At least improving more frequency and time reliability on MARC train should be considered.

TL,DR Basically more public transport, walking and bike paths. And no more road expansions.

But the major roadblocks (pun intended) is the land use and stigma associated with transit and cycling/walking. And there should be marketing to more affluent people to try public transit. Perhaps at first promoting routes to fun local events happening or something to get the idea that you don't need a car for every trip or something.

In short, "A developed country is not a place where the poor have cars. It's where the rich use public transportation."— Gustavo Petro. And we know the wealthy have more influence, so we need them to get on board in public transit

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that ... *[continued]*

Less Highway *(continued)*

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Transportation Demand Management (TDM) strategies focus on understanding how people make their transportation decisions and influencing people's behavior to use existing infrastructure in more efficient ways, working to reduce single occupancy vehicle trips and getting people to use transit, ridesharing, walking, biking, and telework. State and federal funding supports transit, guaranteed ride home, rideshare services, as well as commuter tax credits through employers.

Thank you again for your comment.

COMMENT 30

willy: No more road expansions. More public transportation!

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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The Workgroup held four meetings from September to December 2022 and based their work on the BRTB's extensive 2021 analysis of this issue. The Workgroup considered the alternatives from the original study, and compared peer state and regional transit entities.

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Thank you again for your comment.

Less Highway *(continued)*

COMMENT 31

Willy Wong: I don't approve of any roadway expansion unless its adding more bike and walking paths and public transit. More roads creates more traffic. I do hope one day instead of cars people have other options of transport.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond. Supporting transit is evidenced by the Baltimore Regional Transit Governance and Funding Workgroup, established July 2022 by BMC's Board of Directors with the objective of preparing recommendations regarding the management of transit in the Baltimore region. The Workgroup held four meetings from September to December 2022 and based their work on the BRTB's extensive 2021 analysis of this issue. The Workgroup considered the alternatives from the original study, and compared peer state and regional transit entities. Each meeting was open to interested groups and individuals and included opportunities to provide comments both virtually and in-person. Prior to the creation of the final report, members of the public were invited to comment on a set of draft-final recommendations. The Workgroup ultimately developed consensus around a set of five [recommendations](#) for timely action by our local governments, the Maryland General Assembly and the Moore-Miller administration. Out of that work, the MD General Assembly in the 2023 legislative session approved [HB0794](#) / [SB0504](#) - Baltimore Regional Transit Commission. This new Commission is expected to begin work in October 2023. Regarding bike and walking paths, nearly 3/4 of the projects in *Resilience 2050* include bicycle and pedestrian facilities as part of their project scope. *Resilience 2050* also includes \$250 million in funding set-aside for strategies improving air quality in the Baltimore region. Sixteen regional bicycle and pedestrian priority projects are included in *Resilience 2050* as part of this set-aside funding (see page 30 of [Chapter 7](#)). We encourage you to be involved in the Vision for a Regional Bicycle Network project which will begin in fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities that was developed in spring 2022. The Vision for a Regional Bicycle Network project will also go into more depth on the benefits of active transportation and potential funding sources for bicycle and multiuse projects. Thank you again for your comment.

COMMENT 32

Willy Wong: It seems to be more focus on roadway expansion. I'd rather see public transit have more funding.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive ... *[continued]*

Less Highway *(continued)*

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Thank you again for your comment.

COMMENT 33

Eyob Worku: I'm concerned about how much road widening and interchange construction is included when improving car access is so antithetical to the listed goals of *Resilience 2050*.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that a good transit system is critical to the region. There are a number of significant items relating to transit in *Resilience 2050*. Regarding project scoring, transit projects became eligible for more total points than highway projects. Additional criteria were added to transit scoring that allows for more robust projects to receive higher scores. Ultimately, all transit projects that were submitted for consideration have been included in the Preferred Alternative. While additional transit and reliable transit will be a boon to many riders, highways are also a necessary component of a good transportation network that supports people and freight. This region benefits from the large and active port of Baltimore as well as access to I-95. The highways that feed into I-95 also allow for the efficient movement of goods and services to businesses throughout the region – and beyond.

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Thank you again for your comment.

Multiple Topics

COMMENT 1

CMTA Coalition Letter, Signed by: Baltimore County Progressive Democrats Club, Baltimore MARC Riders, Bikemore, Cedar Lane Environmental Justice Ministry Bethesda, Central Maryland Transportation Alliance, Climate Reality Greater Maryland, Coalition for Smarter Growth, Downtown Residents Advocacy Network (Baltimore), Elders Climate Action Maryland, Fix Maryland Rail, Greater Baltimore Group of the Sierra Club, Indivisible Howard County MD Climate Action, Maryland Sierra Club, Our Revolution Baltimore City/County, Policy Foundation of Maryland, St. Vincent de Paul Green Team, Transit Choices: Thank you very much for the opportunity to comment on the draft long-range transportation plan, Resilience 2050, as well as the draft short-range Transportation Improvement Program (TIP). As stakeholders in the Baltimore region, many of our organizations have been commenting on previous TIPs and, despite not seeing any changes in the spending priorities of the region, we continue to believe it is crucial to offer constructive feedback and to hold regional leadership accountable for their votes to approve these plans.

2024 - 2027 TIP

In line with comments from previous years, we once again object to the lopsided spending priorities in this year's TIP. For the third year in a row, our region's TIP has zero dollars programmed for transit capacity or commuter rail capacity. Meanwhile, also for the third year in a row, highway capacity projects exceed \$900 million. Year after year, new highway capacity projects get added into the TIP's project pipeline and the result is that every single year we add new lane miles to our road network. Historically, the results are dismal. For example, according to a Central Maryland Transportation Alliance analysis of data from the Texas Transportation Institute, the region increased highway lane miles by 76% from 1982 and 2011. During that time, the region's population grew from 1.7 million to 2.5 million – a 48% increase. Freeway expansion far outpaced population growth so we had more lane miles per person, but congestion got worse. Congested lane miles increased from 31% to 58% and the annual hours of delay per auto commuter more than quadrupled – from nine hours a year to 41 hours a year. Trying to widen our way out of congestion is a proven failed strategy. As stated in previous comment letters, the region is in a deep transportation hole and the first thing we need to do is put down the shovel and stop adding new road and highway expansion projects to the TIP. Once again, we ask the BRTB to remove from the Draft TIP, the three highway capacity and road widening projects listed in "Table II-2: New Projects in the 2024-2027 TIP". Prioritizing highway capacity projects over investment in transit, biking, walking, and ADA compliance is a policy choice that the BRTB continues to make despite having options to change course. The massive Infrastructure Investment and Jobs Act (IIJA) provides a once-in-a-generation opportunity to transform transportation in Maryland in the right direction. Federal guidance on how to implement the IIJA allows states to transfer up to 50% of certain formula funds traditionally thought of as highway formulas to programs that allow for spending on uses such as transit, biking, pedestrian infrastructure, and vehicle electrification. Specifically, states are allowed to spend funds from the two largest formulas, the Surface Transportation Block Grant (STBG) and National Highway Performance Program (NHPP), on transit, biking and pedestrian infrastructure. However, the state of Maryland treats them as highway formulas, spending over 97% on roads and highways, much of it on new capacity. Looking at our region in particular, according to the draft TIP, we're expecting over \$600 million in STBG and NHPP funds for FY 24. Of those funds, zero dollars are being flexed to transit or commuter rail and just \$2.5 million are being flexed to bicycle or pedestrian projects – that's flexing less than 0.5%, well below the already anemic statewide amount. ... *[continued]*

RESPONSE

BRTB: MTA is leading multiple efforts to expand the current transit system. The Regional Transit Plan, published in 2020, identified thirty corridors to be studied. Each corridor has or is projected to have sufficient ridership demand to support all-day, frequent transit and would require additional infrastructure investment to fully support successful transit. Additional study is needed to determine mode, specific route or alignment, levels of service and station locations. Investments may include dedicated right-of-way, signal priority, shelters or stations, and other customer amenities. Currently, MTA is advancing the Red Line which will provide an essential east-west connection from Woodlawn to Bayview with the potential for expansion to eastern Baltimore County. The North-South Corridor Study is evaluating existing and future transit demand between Towson and Downtown Baltimore. Baltimore Metropolitan Council is leading a pilot feasibility study for mid-opportunities corridors like BWI Airport to Columbia Town Center.

MTA's Fast Forward Program is investing \$43 million in our core service area by accelerating projects that create a transit system that is more reliable, accessible, and easier to use. Investments include, Bus Stops and Shelters, Wayfinding, Real-Time Information Signs, and dedicated bus lanes. Three pilot dedicated bus lanes were installed on York Road, Harford Avenue, Charles/Light Street to bring quick improvements to riders. ... *[continued]*

Multiple Topics *(continued)*

COMMENT 1 *(continued)*

[from previous] ... Resilience 2050

Similar to the TIP, the draft long-range transportation plan, Resilience 2050, falls well short of improving transportation outcomes for the region. We do note that Resilience 2050 includes significant transit capacity projects such as the East-West transit corridor, the North-South transit corridor, and US 29 Bus Rapid Transit – totalling over \$4 billion. However, the plan also calls for almost \$7 billion in roadway expansion projects, which would completely swamp any progress made on the transit expansions. As mentioned above in our TIP comments, the region has been spending zero dollars on transit capacity year after year while continually adding new lane miles. The region's transit system is so far behind at this point that we need to be spending disproportionately more on transit capacity than road capacity to make up for lost ground. Remember that the region hasn't added any real transit capacity since the mid-90s, while it's been adding road capacity every single year.

The modeled results of Resilience 2050 indicate that the focus on expanding roadway capacity will not improve transportation outcomes for the residents of this region. Appendix C, Table 2 shows the quantified results for congestion and other performance measures. According to the model, building out the plan in Resilience 2050 will result in the following:

- People will drive more. An increase in average daily weekday vehicle miles traveled per person (going from 24.1 VMT/capita to 25.3 VMT/capita)
- People will spend twice as much time stuck in traffic. An increase in average daily weekday hours of delay per person (going from about 9 minutes of delay per day to 18 minutes of delay per day)
- Transit will continue to languish as an option. Zero increase in the share of population riding transit (staying at 3.6%)

Additionally, Resilience 2050 plans for our roadway conditions to deteriorate in the near term. Our current baseline is that 52% of our interstate highways are in good condition. By 2026 that number is expected to fall to 43%. Our current baseline of non-interstate pavement in good condition is 24%. By 2026, that number falls to 22%. (Source: Resilience 2050, Chapter 5, Table 15). In essence, taking the TIP and Resilience 2050 together, the BRTB has proposed spending \$74 billion to maintain the status quo for transit ridership, while forcing people to drive farther in worse traffic on crumbling roads. We can and must do better. At minimum, please remove the new highway capacity projects being added to this year's TIP and increase spending on system preservation and new capacity for transit, biking and pedestrians.

BRTB *(continued)*: The BRTB shares your desire to focus on improving the transit system in the Baltimore region. As such, the Board adopted every candidate transit project that was submitted for consideration in *Resilience 2050*. The Board is also expanding planning efforts around other transit projects that could translate into new candidate projects for future plan updates.

We also support MDOT's Commuter Choice program that offers financial support for rideshare coordinators in each jurisdiction, a statewide Guaranteed Ride Home program and other programs such as the incenTrip mobile app. On the pedestrian side consider Walktober. October in Maryland becomes WALKTOBER, a month where the Maryland Department of Transportation (MDOT) and other partnering agencies promote and host events and webinars spotlighting Maryland pedestrians' safety, health and commuting options in current walk programs and Initiatives.

Thank you for your comment and for participating in the planning process for *Resilience 2050*.

COMMENT 2

Robert Reuter: You have a 346 page document but no where does it say how to comment. Had to go to a sub page on your advertisement flier. ... *[continued]*

RESPONSE

BRTB: Details about our public meetings to discuss the *Resilience 2050* plans in more detail are listed on the second of three tabs on our *Resilience 2050* PublicInput project page, 'Public Meetings.' In addition to in-person meetings with each of our jurisdictional partners at various times on weekday evenings throughout the comment period, we hosted a virtual meeting on Wednesday, May 24 at 12 p.m. We apologize if you missed us, and encourage ... *[continued]*

Multiple Topics *(continued)*

[from previous] ... you to view a recording of the meeting available on our YouTube channel (@BaltoMetroCo). Also, in our print ads we weren't able to include more details beyond the address of each meeting due to space and budget limitations. Going forward, we will more carefully consider ways to share more detailed information about how to access in-person meetings. ... *[continued]*

COMMENT 2 *(continued)*

This document falls under the category of “if you can’t dazzle them with your brilliance, bury them in redundant numbers and useless facts. This document is a textbook case of that.

Before I even comment on the facts when I could dig them out some examples of how you have managed to hide the facts.

- All sorts of beautiful photos of mostly non highway transportation, you had more photos of bikes than you had projects for them, same for light rail and commuter rail.
- Even when you presented transit projects they weren't really for the actual user, and mostly suburban commuter buses, buses, buses and more buses. But only a few photos of buses. ... *[continued]*

BRTB *(continued)*: MTA is leading multiple projects that focus on improving service, particularly for core bus. For instance, MTA's Fast Forward Program is investing \$43 million in our core service area by accelerating projects that create a transit system that is more reliable, accessible, and easier to use. Investments include bus stops and shelters, wayfinding, real-time information signs and dedicated bus lanes. The goal of these investments is to improve the customer experience and improve reliability across the system. ... *[continued]*

COMMENT 2 *(continued)*

- Statistical data that ends mostly in 2020 the middle of the pandemic, I am sure more data has come in the 3 years since then to make the charts and data more reflective of reality.

BUT THE WELL HIDDEN MEAT OF THE DOCUMENT:

- Almost 2/3 of the money goes towards highways and what little is set aside for other projects often is used for highways or pavement projects.
- you have over a dozen transit hubs, People don't want hubs that is for the convince of the transit operator not the rider. Passengers want to be on something that is moving not transferring from vehicle to vehicle. Eliminate all the funding for transit hubs. Put in some transit shelters but little else in needed. ... *[continued]*

BRTB *(continued)*: Transit hubs were identified in the Central Maryland Regional Transit Plan (RTP) as an important feature of the transit network. Transit is most effective when it works as a robust network, allowing riders to transfer between lines to take full advantage of the system. Transit hubs are important for both transit passengers and transit operators. Well-situated and well-designed transit hubs can significantly improve transferring from one system, mode or vehicle to another. Additionally, having layover space and operator rest and relief space in the right places in the network is crucial to effectively and efficiently route and schedule service, even for one seat rides. ... *[continued]*

Multiple Topics *(continued)*

COMMENT 2 *(continued)*

Bus Rapid Transit is nothing more than a bus with lipstick, it is still a bus. And it takes 8 buses to equal one light rail train (400 people on Light rail 50 on the bus.) and BRT is not really “rapid” it is just in the name. A bus last 12 years a light rail vehicle 40 yrs so to equal one light rail train over its lifetime one would need at least 32 buses (and drivers) the buses alone would be over 30 million dollars at today's prices and of course the price would go up. A 3 car light rail train would cost less than that and give a smoother ride and draw more passengers. ... *[continued]*

BRTB *(continued)*: Through the Regional Transit Plan studies MTA is investigating both Light Rail and Bus Rapid Transit as potential options for transit expansion. Both Bus Rapid Transit and Light Rail have various trade-offs in their capital and operating characteristics. These trade-offs will be evaluated as the Regional Transit Plan studies move forward. ... *[continued]*

COMMENT 2 *(continued)*

- There are several levels of bus rapid transit, you can't get gold standards with bronze level funding. Every report shows that to achieve gold level BRT standards one would have to spend the same or more than one would spend on light rail. To get decent East-West service by bus across downtown Baltimore one would need to COMPLETELY take over one of the East-West streets thru downtown Baltimore, or dig a bus tunnel which would need to be larger in diameter than a light rail tunnel. So again more expensive.

Of course this would not happen because no bus rapid transit line in the USA carries the volume of people that routinely ride light rail. BRT is penny wise but pound foolish. Oh and the “flexibility” of BRT argument is actually an argument against BRT as people don't want their transit to move. Part of the reason that “the LINK” was losing 3% of its ridership per year before the pandemic. The only people that made out well with bus flexibility are used car dealers. I know several regular bus riders that after the change squirmed a used car, to the detriment of the environment. ... *[continued]*

BRTB *(continued)*: Through the Regional Transit Plan studies MTA is investigating both Light Rail and Bus Rapid Transit as potential options for transit expansion. Both Bus Rapid Transit and Light Rail have various trade-offs in their capital and operating characteristics. These trade-offs will be evaluated as the Regional Transit Plan studies move forward. ... *[continued]*

COMMENT 2 *(continued)*

The document says that Baltimore will acquire 350 battery electric buses in the plan, but they have yet to even test in service their first battery Electric bus. What about the rest of the fleet? ... *[continued]*

BRTB *(continued)*: The Maryland Greenhouse Gas Reduction Act Reauthorization set a 40 percent reduction target for statewide emissions by 2030 from 2006 levels. MTA subsequently established a goal to convert 50 percent of its Core Bus fleet in Greater Baltimore to zero emission buses (ZEBs) by 2030. This goal was also included in the 2020 Greater Baltimore Regional Transportation Plan (CMRTP), along with a longer-term goal to convert 95 percent of the Core Bus fleet to zero-emission buses by 2045. The passage of Senate Bill 137 in 2021 and of Senate Bill 67 in 2022 prohibited MTA from entering ... *[continued]*

Multiple Topics *(continued)*

(from previous): into new procurements for non-ZEBs beginning in fiscal year 2023. Phase II of the Zero Emission Bus Transition to a 95% zero-emission fleet by 2045 is included in the *Resilience 2050* preferred alternative and is detailed on page 26 of [Chapter 7](#).

In 2022, MTA ordered its first seven zero-emission buses which will be delivered and put into service this year. Utility upgrades have been completed to power vehicle chargers at the Kirk Bus Division and implementation of a training plan has begun across the Administration. Additionally, MTA advanced engineering and operational planning for the ZEB transition by issuing a Request for Proposal (RFPs) for a new multiyear zero-emission bus contract, a bus depot, support chargers, and an electrification partner to install and support chargers. For the Eastern Division, which will be reconstructed into one of the first bus divisions purpose-built for BEBs in the U.S. MTA is advancing design and applying for federal grant opportunities to upgrade this critical bus division. ... *[continued]*

COMMENT 2 *(continued)*

- And this acquiring battery electric buses goes exactly the opposite of what MDOT is doing with MARC buying Diesel buses that run on an electrified railroad, Nothing more polluting than a diesel train under electric wires. ... *[continued]*

BRTB *(continued)*: The MARC system includes both diesel and electric locomotives. The expected useful life of MARC locomotives ranges from 20 to 30 years. MTA will replace MARC locomotives as they reach their useful life. Currently the Camden and Brunswick Lines are not electrified requiring diesel locomotives from an operational perspective. With the upgrades to the Frederick Douglas Tunnel only electric locomotives will be used on the Penn Line after the construction of this critical asset. ... *[continued]*

COMMENT 2 *(continued)*

- MARC is a gem that is ignored in this document. Yes in the next 25years you will fix up a few stations. But that is all. Nothing on the Brunswick line or Camden line just fix up a few stations on the Penn line. ... *[continued]*

BRTB *(continued)*: MTA recently released the Brunswick Line Study Technical Report that provides markets for increased ridership, potential future service enhancements on the Brunswick Line. MTA coordinates with host railroads for investments and service enhancements. MTA will continue to advocate for improvements to the host rail road right of ways to improve MARC service. ... *[continued]*

COMMENT 2 *(continued)*

- A long advanced plan to extend the current subway from Johns Hopkins hospital to Ashland street and then East to a terminal at a station with the MARC Bayview station and station of the Red Line light Rail system. Making for a major transit hub. And a park and ride or rail terminal could be built on the contaminated steel plant site just West of Bayview. ... *[continued]*

Multiple Topics *(continued)*

BRTB *(continued)*: MTA is currently working on 30% Design for a new Bayview MARC Station in East Baltimore. The design of this station prioritizes multimodal connections, making it future-ready for a robust transit hub. ... *[continued]*

COMMENT 2 *(continued)*

- Not one word about the long planned extension of Marc Penn line Service to Elkton and Newark DE. This natural connection with SEPTA would allow full commuter service all the way from DC to New Haven CT. Why not. ... *[continued]*

BRTB *(continued)*: MARC-SEPTA connection is outside the jurisdiction of this planning document. The project is included in the long range transportation plan for the Wilmington Area Planning Council (WILMAPCO). However, the importance of the project along with BRTB support is noted on page 35 of [Chapter 7](#). The BRTB continues to support this project, but it is not included in the *Resilience 2050* preferred alternative to avoid double counting the project with the WILMAPCO LRTP. MTA is working on expanding the MARC service to Newark and/or Wilmington. The agency is actively engaged with its partners in Delaware and host railroads to identify the steps needed to implement a pilot service between Perryville and Newark, DE. At the June 2023 meeting of the BRTB, MDOT MTA gave a presentation on progress to date with the MARC-SEPTA connection as well as the MARC-VRE connection to the south. ... *[continued]*

COMMENT 2 *(continued)*

- The document keeps referring to the Cromwell/Glen Burnie station on the light rail line, the line is a mile short of Glen Burnie with a 66ft wide right of way waiting for the light rail to go to Glen Burnie, but not a word is this document about finishing the light rail line we already have into it's natural destination downtown Glen Burnie. ... *[continued]*

BRTB *(continued)*: The Cromwell/Glen Burnie light rail station was opened in 1993. This was part of an extension of the original line, and was never intended to extend to downtown Glen Burnie. Further extension into downtown Glen Burnie is not mentioned in the Central Maryland Regional Transit Plan, and is not currently being considered. ... *[continued]*

COMMENT 2 *(continued)*

- Why does this document propose cheap BRT for the purple line extension from New Carrollton to Dorsey. It is a long known fact that as much as 50% of potential ridership is lost with a forced transfer. ... *[continued]*

BRTB *(continued)*: Two transit expansion projects in *Resilience 2050* connect to purple line stations. The first, submitted by Anne Arundel County, is a new express bus service between Parole and New Carrollton. The second, submitted by Howard County, is a new BRT line along US 1 from the Dorsey MARC Station ... *[continued]*

Multiple Topics *(continued)*

(from previous): to the College Park Purple Line Station. The BRTB supports the importance of these regional transit links and to more closely linking the Baltimore and Washington regions via transit access. While future considerations for these connections could include rail, or some other form of higher capacity transit, in the next 25 years we anticipate express bus service and/or BRT as being the most likely to get implemented within the fiscal constraints of this plan. If we were to allocate the amount of resources required towards a rail connection for these corridors in *Resilience 2050*, numerous other projects would have to be eliminated from the plan to stay within the anticipated revenues as shown in the *Resilience 2050* Financial Plan ([Chapter 6](#)). Should the proposed services be provided as planned in *Resilience 2050*, the ridership for these routes could provide justification for further service enhancements including increased frequency and potentially upgrades to a higher frequency mass transit option. Anne Arundel and Howard Counties will continue to advocate for the expansion of regional transit services to the Maryland Department of Transportation for inclusion in the annual Consolidated Transportation Program.... *[continued]*

COMMENT 2 *(continued)*

- And while the deconstruction of the highway to nowhere is long overdue it would also destroy the natural Right of Way for any potential East-West rail line either subway or light rail. And there is no mention of where the route 40 traffic that currently uses the highway to nowhere would go. This traffic will not vanish with the removal of the roadway.... *[continued]*

BRTB *(continued)*: MTA is working with Baltimore City DOT on the Reconnecting Communities grant. Right of Way for transit is a priority for both agencies. The Red Line project team will work in collaboration with projects being led by partner agencies including The Reconnecting Communities\West Baltimore United planning study which will evaluate approaches to accommodating both transit and private vehicle travel through the study area. ... *[continued]*

COMMENT 2 *(continued)*

- Bikes and cars do not mix well. Will more and more lanes be removed along with the parking so more bike ways can be constructed, on will bikes be forced to mingle with traffic, possibly with severe consequences. And making lanes narrower does not help it just makes for more fender benders in the tighter traffic. *[continued]*

BRTB *(continued)*: The Maryland Department of Transportation (MDOT) and local partners are committed to improving safety and multimodal accessibility for all users on its network. The Context-Driven: Access and Mobility for All Users Guide is a planning and design resource offering guidelines centered on establishing safe and effective multi-modal transportation systems. This guidance includes evaluating the feasibility of implementing proven safety countermeasures and innovative treatments, such as protected bicycle facilities, where feasible. ... *[continued]*

COMMENT 2 *(continued)*

- Most of the highway projects are in the rural or semi rural areas of the state surrounding Baltimore metro area, this takes for farmland and woodlands out of useful service, and of course many thousands of mature trees.

Multiple Topics *(continued)*

BRTB *(continued)*: In many cases the State Highway Administration or local jurisdiction have sufficient Right-of-Way to accommodate a lane widening. Regardless, there are requirements related to environmental impacts that would preclude any project from carelessly taking trees, let alone thousands of trees. Thank you again for your comments.

COMMENT 3

Strong Towns Baltimore: Michael Scepaniak, Co-president, Cockeysville; David House, Co-president, Beechfield; Zachary Blanchard, President, Federal Hill Neighborhood Association; Danielle Bjorndalen, Beechfield; Nick Snider, Remington; Sarah Story, Westgate; Joshua Spokes, Woodberry; Alex Grube, South Baltimore; Tevis Tsai, Parkville; Omar Hamza, Madison Park; Shaun Lehmann, Ellicott City; Patrick Ireland, Towson; Charlie Smith, Towson; Ann Greenbaum, Towson; Tristan Stefanovic, Belvedere/Chinquapin; John Locke, Catonsville; James Pizzurro, Towson; Carson Drew, Old Goucher; Yuki Clarke, Woodbourne-McCabe/Govans; Josh Kelley, Baltimore; Mariel Acosta, Highlandtown; Nathan Kalasky, Glen Burnie; Melanie Scheirer, Mt Clare; Josh Poland, Federal Hill; Joshua Black, Butchers Hill; Brandy Savarese, Reservoir Hill; Chris Guinnup, Hampden; Michael Martin, Catonsville; Alisa Williams, Greenmount West; Thomas Dutkiewicz, Bolton Hill; Bleakney Matthew, Riverside

Separately supported: Adam Jones, Jay Louis

Just as the Baltimore Regional Transportation Board (BRTB) obviously spent significant time and effort putting together Resilience 2050, the latest long-range transportation plan (LRTP) for the Baltimore metropolitan region, we have spent significant time and effort reading and analyzing it. We feel fortunate that our region is represented by such a professional and capable organization, who we can count on to create and circulate such top-notch plans.

As an organization which seeks to de-emphasize automobile-centric land use and development practices, we take the comment opportunity provided by the BRTB seriously. Given our aims, we see much to applaud in this LRTP, including the following:

- The advantage given to transit projects in the scoring process.
- All of the 36 transit projects submitted for consideration have been selected for inclusion in the preferred alternative.
- The inclusion of major transit expansion and preservation projects such as the East-West Transit Corridor, the North-South Transit Corridor, and a transition to low-floor Light Rail Vehicles.
- Approximately “70 percent of the Resilience 2050 projects include pedestrian and bicycle facilities”.

With that being said, we also see many elements in the LRTP that give us pause and we feel merit reconsideration by the BRTB.

More Project Details

Despite the length of the plan document, it somehow fails to provide adequate detail regarding each individual project included in the preferred alternative. We’d like to see a concise rationale provided for each project. Without that, we are left to guess what each project seeks to accomplish.

While the document clearly explains the components that factor into the technical score from a methodology standpoint, the document does not provide a breakdown of those itemized component scores for each specific project. Lacking those itemized amounts, we are left scratching our heads in trying to determine how a project such as US 1 from the Baltimore County Line to MD 175 (37 points) managed a technical score that is higher than the East-West Transit Corridor (35 points) and US 1 Corridor Bus Rapid Transit (33 points).

We’d like to see the policy scores assigned by each jurisdiction (BRTB member) to their submitted projects, so the priorities of each BRTB member are made clear.

No Highway Expansions

While the content of the plan document seems to place a majority of its focus on transit and active transportation, the actual preferred alternative seems to remain focused on roadways. In this way, the document comes across as somewhat of a marketing brochure, with 59% of the relevant document photographs (36 of 61) depicting the former, but 58% of the project dollars (\$18.8B of \$32.5B) earmarked for the latter.

That 58% includes 47 expansion projects, of which 34 call for additional automobile lanes. While we acknowledge that we aren’t privy to the rationale behind each project, based on what we can surmise, we find nearly all of these roadway expansions to be poor choices.

Most of these expansions (with the exception of the I-695 at Broening Highway Interchange) appear to be in low density, automobile centric suburbs with exclusionary zoning in place that will prevent them from ever evolving beyond their initial state. With their development potential capped, their present and future productivity yield is likewise capped. Adding the liability of maintaining these additional lane miles (upwards of 250 lane miles, by our estimate) into perpetuity - in support of such low-return development - is fiscally irresponsible. ... *[continued]*

Multiple Topics *(continued)*

[from previous] ... The plan seems to make the argument that highway expansions in these areas are necessary to improve connections of currently disconnected areas. However, our elected leaders (and BRTB members), both past and present, have willfully steered substantial automobile-centric greenfield development into areas of our region with insubstantial automobile-centric infrastructure. Circling back around after the fact and declaring that these “disconnected” areas require expensive automobile infrastructure expansions is a flawed and self-perpetuating chain of logic which needs to stop. We can’t afford to continue with it.

One helpful graph that the plan document needs to add is one that plots the population growth forecast for the Baltimore region against the growth of system preservation costs in the Baltimore region (which would be based on historical growth). For the former, the plan document (under “Forecast Population, Household, and Employment Growth for the Baltimore Region”) forecasts a 12.6% increase in population from 2020-2050. For the latter, we have to do our own math.

Based on the dollar amounts provided in the “Baltimore Region State and Federal Operating, System Preservation and Expansion Revenue Forecast: 2028-2050” table in the plan document, we calculate a 103% increase in expenditures. However, when adjusting for the constant 4% rate of inflation that the plan document assumes, we get a number that is nominally higher than the \$1,202 number provided in the table. This would seem to imply that the forecast assumes a reduction in (inflation-adjusted) system preservation costs between now and 2050. Is this reasonable?

In BRTB Resolution #23-13, MDOT provided historical Operating & Capital Expenditures - Statewide. In 1981, system preservation costs were \$111M. In 2022, they were \$1,931M. Over this 41 year period, the average inflation rate was 2.91%. Adjusted for inflation, that \$111M equates to \$363M. Yet \$1,931M is many multiples more than \$363M - 432% more.

Please forgive us for any misunderstandings or math errors here. We’d much prefer to see the BRTB perform and provide these calculations. Specifically, we’d like to see the plan document provide the historical rate of increase (or decrease) in system preservation costs for the Baltimore region, extrapolate that out to 2050, and then compare that against the forecasted population growth rate. If the BRTB feels that this historic trend of cost increases will not continue into the future, the plan document should explain why. Lacking that, we are left wondering how the BRTB feels that they can justify adding on even more infrastructure liabilities to serve low-density developments. How do they foresee the tax base covering the resultant escalating system preservation costs?

The BRTB members (our county executives) pushing for these roadway expansions need to, instead, enable denser development in already well-connected areas via zoning reforms and transit.

Shaping Socioeconomic Changes

We find the socioeconomic forecasting portion of the plan document to be very frustrating. This entire section of the document takes a tone that implies transportation and land use decisions follow predetermined and unalterable trends which the BRTB is powerless to resist. Some examples:

- “Will migrants’ residential location choices continue the region’s sprawling residential pattern and increase demand for automobile infrastructure improvements? Or will migrants’ residential location choices cluster in densely populated urban neighborhoods served more by non-automobile modes such as transit, walking and biking?”
- “The population of the Baltimore region is aging, mirroring national trends. A variety of factors are contributing to the demographic shift, including the large size of the aging “baby-boomer” generation, advances in science and medicine resulting in longer lifespans and changes in fertility rates largely due to differences in family formation preferences (many are having fewer children, later in-life).”
- “Understanding the age structure of the population can help planners anticipate demand for age-specific services... and make adjustments to the transportation system in order to better accommodate a changing age distribution.”
- “Will WFH [(work from home)] increase sprawl? What are the implications to future land use?”

The BRTB members are not powerless observers to demographic and socioeconomic changes. Rather, such changes are strongly shaped by choices made by the BRTB in the LRTP. Through the transportation and land use decisions they make, the elected leaders comprising the BRTB are not simply making adjustments to accommodate predetermined forces, they are proactively shaping them.

If migrants choose to embrace the “sprawling residential pattern” and if WFH increases sprawl, it will be because that is the pattern powerful governmental forces (which are in control of transportation and land use policies) have been enabling and favoring since the end of World War II. If the Baltimore region continues to age in lock step with the nation, it will be partly because housing is unaffordable to younger residents, which is largely due to land use policies that dictate exclusionary zoning and expensive accommodations for automobiles.

Again, the BRTB members are not powerless observers or pawns to forecasted changes and shifts. They shape and induce them. They need to take responsibility for that role and plan and build accordingly. For the BRTB members to absolve themselves of all responsibility for who chooses to live in the Baltimore region, where in the Baltimore region they choose to live, and how they choose to move about the Baltimore region, is unacceptable. ... *[continued]*

Multiple Topics *(continued)*

[from previous] ... **Safety**

It is clear that safety has become a major focus of the LRTP, what with the BRTB opting to double the technical points for safety in Resilience 2050 (as compared to the previous LRTP). However, the plan document demonstrates a lack of will on the part of government leaders to make decisions and sacrifices that will truly move the needle with regard to safety, at least when it comes to non-motorists.

The Look Alive campaign with Signal Woman and the law enforcement training seminar referenced in the plan document are continuations of a well-established practice of placing nearly all blame for crashes on drivers and road users, without placing any responsibility at the feet of roadway engineers. The Context-Driven Guide and Toolkit developed by the MDOT SHA is a nice step toward rectifying this, but the jury is still out on how effective it will prove to be in changing a culture that provides significant room for error on the part of drivers, but almost no similar affordances for non-drivers, especially when it comes at the expense of negatively impacting vehicular flow.

In comparison to the well-recognized and well-regarded Safe System Approach, MDOT SHA's home-grown Context-Driven Guide and Toolkit feels very watered-down and lacking in conviction. It is our hope that, sooner rather than later, the engineering professionals at the MDOT SHA will come to accept their outsized influence and responsibility when it comes to the safety of vulnerable road users and fully embrace the Safe System Approach.

In 2019, Maryland enacted a Vision Zero law that states the following: "THE GOAL OF VISION ZERO IS TO HAVE ZERO VEHICLE-RELATED DEATHS OR SERIOUS INJURIES ON STATE HIGHWAYS ROADWAYS BY THE YEAR 2030."

And yet, for simply the Baltimore region alone, the plan document's target for "Number of Non-motorized Fatalities and Serious Injuries by 2030" is 281. MDOT (and, by extension, the BRTB) has completely failed to provide any set of projections or identify any sort of corrective measures that track to a 0 by 2030. In lieu of this, both parties have, instead, chosen to set their sights on "realistic" targets. We are left to conclude that MDOT has not put together a plan over the course of the past 3+ years to achieve Vision Zero. This is not acceptable.

What we get, instead, is the plan document calling for "research into better understanding the causes of bicycle and pedestrian crashes and injuries". There is no mystery here. The causes are interactions between fast-moving automobiles and everyone else. Given this, there is a rather simple solution readily available: slower roadway speeds. Unfortunately, it is a solution that exposes the BRTB's biases.

A pedestrian's odds of dying when struck by an automobile traveling at 40 MPH is 3-5x higher than at 30 MPH. At a rudimentary level, implementing slower speeds can take the form of lower posted speed limits on all non-highways. Over time, engineers could then work to implement road treatments that affect lower design speeds. (This is where embracing the Safe System Approach comes into play.)

We have to wonder how many projects in the LRTP preferred alternative incorporate slower roadway speeds. We speculate that the answer is "none".

And we'll venture to guess that the reason why is "congestion". However, in the section(s) of the plan document focused on the BRTB's Congestion Management Process (CMP), the goal cited frequently is "improve travel time reliability" (as opposed to "travel time", period). If we take this to heart, we see no reason why slower speeds should prove so difficult for the BRTB to embrace. Yet, it would appear they are.

One of the goals listed in the plan document's executive summary is to "enable all individuals to reach their destinations safely and seamlessly". Nowhere in this goal does it say "fast". But, it seems clear that speed is an unspoken and assumed goal, at least for individuals driving automobiles.

This focus on minimizing automobile congestion (and maximizing vehicle speed/flow) comes at the expense of non-motorist safety and convenience in myriad ways. A couple obvious examples are roadway designs opting against including crosswalks that will interrupt the flow of traffic - and intersections with broad, open corners and slip lanes that drivers can take at speed.

A similar bias would appear to be in place when it comes to safety, where the safety of individuals driving automobiles takes precedence over the safety of individuals outside of those automobiles. In short, geometries that make the transportation system safe for motorists frequently make it unsafe for non-motorists. Think wide lanes on straight, level roadways with unobstructed clear zones to the sides. Contrast this with the geometries of a roadway that are more favorable to the safety of non-motorists (think narrow, complex, and twisty). The thing is, these alternative geometries result in slower design speeds, which is safest for everyone.

We would hope that it goes without saying that adding lanes to such a roadway already biased toward the safety and comfort of motorists only makes that roadway even less safe for non-motorists. This remains the case even if those additional lanes are accompanied by complete streets elements.

In the LRTP, where the preferred alternative roadway projects are listed, for 34 of the 47 Roadway Expansion Projects (72%), the project description calls for widening to accommodate additional lane miles. In contrast, those project descriptions mention bicycle and pedestrian improvements and accommodations (sometimes qualified by "within project limits"), only at the end. As such, these complete streets elements seem to come across as add-ons and secondary.

When we commented on this at a recent CMP meeting, we were told that, while lane additions are the most expensive component of these projects, they are not necessarily the priority. While we would like to believe that, we find it very hard to do so. Even if the claim is true, including complete streets treatments in these projects will have minimal positive impact for non-motorists. The benefits yielded by isolated segments of bicycle lanes, ... *[continued]*

Multiple Topics *(continued)*

[from previous] ... especially when not protected from automobile traffic, are easily negated by additional lanes of traffic.

One of the goals listed in the plan document is to “invest in high quality, safe, sustainable and comfortable bicycle and pedestrian facilities, with an emphasis on facilities that are separate from vehicular traffic”. We applaud this. However, we would like to see the preferred alternative projects explicitly commit to separated or protected facilities - via inclusion of such wording in their descriptions. Given the plan document’s frequent mentions of safety for non-motorists, we don’t feel that this is asking for too much. And given that Baltimore County, in particular, has yet to build any on-road protected bicycle infrastructure, we feel that we have reason to be skeptical.

Induced Demand

We find it noteworthy that the plan document, in general, and the Congestion Management section, specifically, makes no mention of or acknowledgement of induced demand. When applied to transportation, “induced demand” refers to the idea that increasing roadway capacity encourages more people to drive, thus failing (over the long run) to reduce congestion.

Given that so much of the preferred alternative is focused on roadway expansion, and that the phenomenon of induced demand is (we believe) well-known and well-proven, it seems to us that this disconnect needs to be addressed. Granted, the content of the Congestion Management section speaks primarily to non-expansion strategies. A simple scan of the “Likely Congestion Management Strategies” table yields repeated mentions of non-expansion strategies that we favor (such as public/active transportation). But, that same table also makes frequent mention of “Roadway changes (new lanes)”.

Is the BRTB membership somehow of the opinion that induced demand is a discredited and meritless concept? Regardless, we’d like to see it addressed and an explanation provided as to how the preferred alternative will not induce additional demand for future roadway expansions. If the BRTB were to fully embrace the exercise, they could go further and provide an analysis of how expanding and improving transit and active transportation infrastructure goes on to induce more demand for those modes of travel, as well.

Low Standards for Transit

The “Analysis of Preferred Alternative - Environmental Justice” section in Appendix C is particularly frustrating. The conclusion of this section leads with the statement that “The measures analyzed indicate that the surface transportation investments in Resilience 2050 should not have disproportionate impacts on EJ TAZs.” This is not an adequate goal. With this, the BRTB is essentially saying that they are not making things worse for EJ TAZs. We feel that the goal should, instead, be to have disproportionately positive impacts on EJ TAZs. There is a long history of inequity to recover from and compensate for. As such, moving forward in equal measure from an unequal baseline is unacceptable.

In “Table 15 - Full Results: Environmental Justice Analysis”, we see most of the metrics color-coded green to signify improvement. However, the story being told here is very misleading.

With some deeper analysis, the finding we see here is that, for every metric but one (9 out of 10), the preferred alternative yields improvements that are greater (or declines that are lesser) for Non-EJ TAZs than EJ TAZs. And, as we have already mentioned, the baselines for both cohorts have inequitable starting points. How are these results not disproportionate? More explanation needs to be provided.

Overall, the evaluation of potential effects of the preferred alternative suffers from two basic flaws:

1. Very low standards for public transportation and its riders.
2. An overwhelming bias in favor of automobile-centric transportation.

The two lead metrics in Table 15 are as follows:

1. Average number of jobs accessible by auto within 30 minutes
2. Average number of jobs accessible by transit (walk access) within 60 minutes

Why is the baseline time frame for accessibility by automobile 30 minutes, and yet 60 minutes by transit? That’s twice as long. Does the BRTB believe that transit riders value their time any less than motorists? We find that unlikely. What seems more plausible to us is that the BRTB simply has lower standards for public transportation than it does for automobile-centric transportation. These numbers should be equivalent - 30 minutes for both.

Worse still, the plan document explains that, for transit, the time calculations “include time estimates for walking to a transit stop, wait times, transfer times (walking and waiting), and walking from the final transit stop to the destination.” As much as we appreciate and value the sophistication of this formula, it is inadequate.

As most any rider of public transit in the Baltimore region will tell you, the system is rife with late-arriving and no-show buses and trains. As best they can, transit riders do their best to anticipate these service deficiencies and allocate buffer time accordingly. As such, the time calculation formula used in the plan document should factor in such metrics as headway adherence and schedule adherence, as provided by ARIES for Transit (or similar).

The “Average travel time in minutes for shopping purposes” metric is worth highlighting here, in particular. The preferred alternative will shorten travel times by transit and lengthen them by automobile. This is good. However, the resultant times (for EJ TAZs) are 9.67 minutes by automobile ... *[continued]*

Multiple Topics *(continued)*

[from previous] ... and 39.29 minutes via transit. If anything, shopping trips via transit should be quicker than by automobile. Carrying bulky purchases home via public transit simply isn't feasible. As such, shopping via that mode requires more frequent trips.

To the credit of the plan document, it does clearly state these imbalances:

- "Auto access to jobs within 30 minutes exceeds transit access to jobs within 60 minutes across all TAZs. For example, in the 2050 PA scenario, auto access is more than two times greater than transit access in EJ TAZs and more than three times greater in non-EJ TAZs."
- "Auto access to shopping opportunities exceeds that for transit regardless of TAZ type or scenario."
- "Average transit commute times are significantly longer than those for auto regardless of TAZ type."
- "As with commute times, the average travel time for shopping purposes is much longer by transit as compared to auto. Transit times are approximately four times longer than those for auto across both TAZs and scenarios."
- "As we saw with average commute and shopping travel times, average travel times to the closest hospital are longer for transit than they are for auto. As compared to auto, transit times are about four times higher for EJ TAZs and more than two times higher for non-EJ TAZs across both scenarios."
- "However, transit access is once again significantly less than that for auto travel."
- "Similar to the other closeness measures, the TAZ percentages for transit are significantly less than those for auto."
- "Auto access and mobility are uniformly better than that for transit."

We acknowledge and appreciate this transparency. However, the plan document seems to make a concerted effort to bury these lackluster results that the preferred alternative will yield. Instead, the plan document overstates the benefits of the preferred alternative for both transit riders and EJ TAZs.

The bottom line is that, with the preferred alternative, transit travel times will remain 2-4x higher than automobile travel times. The upper threshold for a one-person household defined by the BRTB as "low-income" is \$29,000. Given the financial burdens of purchasing and owning an automobile, this result yielded by the preferred alternative is unacceptable.

Not Moving the Needle

This LRTP features some progressive changes from plans of the past, including the following:

- Transit projects are awarded extra points in the scoring process.
- All projects are awarded extra points for safety improvements.
- Impacts to Environmental Justice communities are analyzed at-length.
- From purely a content perspective, active transportation is given significant focus.

Unfortunately, despite these changes and efforts, the preferred alternative proposed by the LRTP will not move the needle in a significant way with regard to any of these dimensions.

The plan document seems to make much of the \$8.9B the preferred alternative targets toward transit system preservation and the \$4.8B it targets toward transit expansion. However, these amounts are eclipsed by the \$11.9B targeted toward roadway preservation and \$6.9B targeted toward roadway expansion. Sadly (in our minds), the results are predictably disappointing.

As shown in "Figure 2 – Daily Trips in the Baltimore Region by Travel Mode" in Appendix C, the preferred alternative does not result in anything even remotely resembling a significant shift away from trips taken in single occupancy vehicles. The bars in the graph are level.

As shown in "Table 2 - 2019, 2050 Existing + Committed and 2050 Preferred Alternative Performance Measures" in Appendix C, the preferred alternative does not result in anything even remotely resembling a significant increase in transit ridership - and the average weekday mode share for transit remains completely unchanged between 2019 and 2050 (at 3.63%). This is unacceptable.

We fully understand that our transportation system is large and complex and that change takes time. But, the preferred alternative proposed by the BRTB essentially yields no changes to the bottom line over the course of the next 26 years. This is unacceptable.

The construction of our automobile-centric transportation system began in earnest in 1956 (with the signing of the Federal-Aid Highway Act). That was 67 years ago. Given that time frame, we don't believe that moving the needle in a different direction over the course of the next 26 years is an impossible task. In fact, given historical precedent, we see it as being completely doable.

Consider that, from 1947 to 1963 (a span of only 16 years), Baltimore streetcar ridership declined 100%, from pervasive to extinct. It was policy changes pursued by past governmental, institutional, and commercial interests that brought about tectonic shifts such as these to the Baltimore region's transportation system and built environment. Those forces remain in place in our region, although they take different forms these days. The BRTB is a manifestation of one of those forces.

The BRTB has it within their power to effect such changes to today's transportation system. Unfortunately, given the plan document, we aren't seeing a willingness among the BRTB members to do so. They are essentially choosing to maintain the status quo. ... *[continued]*

Multiple Topics *(continued)*

Closing

We understand that these comments are lengthy. However, the document/plan on which we are commenting is, itself, very lengthy. We hope that you take our comments to heart and appreciate the effort we have put into them. We believe they reflect the respect we have for the effort that the BRTB has placed in the LRTP and the plan document.

We understand that we have brought up a large number of points that we have requested be addressed and questions we would like to see answered. In order to make doing so easier, we have listed them below (16 items below).

Thank you very much for your efforts on behalf of the Baltimore region and the people who live here and care so much about its future. We appreciate the opportunity to comment and look forward to reading your reply.

We understand that we have brought up a large number of points that we have requested be addressed and questions we would like to see answered. In order to make doing so easier, we have listed them below. ... *[continued]*

RESPONSE

BRTB: Thank you for the time you and Strong Towns Baltimore put into reviewing and developing thoughtful comments on the planning process for *Resilience 2050*. ... *[continued]*

COMMENT 3 *(continued)*

1. Provide a concise rationale for each project..... *[continued]*

BRTB *(continued)*: Thank you for the comment from Strong Towns Baltimore and for participating in the planning process for *Resilience 2050*. The BRTB always struggles between trying to provide detailed and digestible information. The current draft plan is 346 pages long and we look for other ways to concisely tell the story of the plan. We have heard that the public responds best to graphic information and the BRTB has chosen to provide an interactive project map and ESRI Story Map in response. Many of these projects are envisioned to be planned, engineered and constructed 10 or 20 years from now and have not progressed through required National Environmental Policy Act (NEPA) planning efforts that will determine details on the projects. Candidate projects submitted for consideration into *Resilience 2050* have gone through various levels of local development and review such as inclusion in local comprehensive plans and transportation plans. Locally sponsored projects have more details provided in each jurisdiction's [Annual Priority Letter](#).

We strive to provide enough detail for public vetting, recognizing that project details are not finalized until the completion of NEPA. Projects being identified in a regional long range plan does allow for projects to progress through NEPA. ... *[continued]*

COMMENT 3 *(continued)*

2. Provide a breakdown of itemized (technical) component scores for each project. ... *[continued]*

BRTB *(continued)*: The project scoring sheet is now online and will be included in [Appendix B](#). ... *[continued]*

Multiple Topics *(continued)*

COMMENT 3 *(continued)*

3. Provide the policy scores assigned by each jurisdiction to their submitted projects. ... *[continued]*

BRTB *(continued)*: The project scoring sheet is now online and will be included in [Appendix B](#). ... *[continued]*

COMMENT 3 *(continued)*

4. Provide a graph that plots the population growth forecast for the Baltimore region against the growth of system preservation costs in the Baltimore region. ... *[continued]*

BRTB *(continued)*: It is true that system preservation and operations costs have increased, far outpacing population growth in the region. As such, system expansion funds have decreased to ensure that we adequately maintain and operate our current transportation system. This also translates into reduced funding for system expansion from previous Long Range Plans. This strain on Maryland's transportation trust fund was recognized by the General Assembly this past session. 2023 Senate Bill 024 establishes a Maryland Commission on Transportation Revenue and Infrastructure Needs. The Commission will review among other items: 1) Revenue trends, 2) Trends in operating and capital expenditures, and how existing resources have constrained programming, and 3) Methods other states are funding transportation needs. The Commission is scheduled to provide an interim report on or before January 1, 2024. ... *[continued]*

COMMENT 3 *(continued)*

5. Explain how the BRTB expects the Baltimore region's tax base to cover the projected 103% increase in system preservation costs, given that the region's population is only projected to grow 12.6%. ... *[continued]*

BRTB *(continued)*: See previous response to point 4. ... *[continued]*

COMMENT 3 *(continued)*

6. Provide the historical rate of increase (or decrease) in system preservation costs for the Baltimore region, extrapolate that out to 2050, and then compare that against the forecasted population growth rate of 12.6%. Provide an explanation as to a) why the historic trend of cost increases will not continue into the future or b) how the BRTB expects the Baltimore region's tax base to cover the projected escalating increases in system preservation costs. ... *[continued]*

Multiple Topics *(continued)*

BRTB *(continued)*: See previous response to point 4. ... *[continued]*

COMMENT 3 *(continued)*

7. Rework the socioeconomic forecasting section of the plan document to acknowledge that such changes are shaped and induced by the BRTB. ... *[continued]*

BRTB *(continued)*: The socioeconomic forecasts are based upon locally adopted Comprehensive Plans and zoning regulations that are governed under the State of Maryland Land Use Article, as well as socioeconomic and development trends, market conditions and other local growth-related policies. The BRTB adopted Resolution #23-1 in June 2022 that guides the transportation investments in *Resilience 2050*. Local Comprehensive plans do regularly get updated and economic development conditions are changing, resulting in updates to forecasts that will be reflected in plan updates and amendments. ... *[continued]*

COMMENT 3 *(continued)*

8. Provide MDOT's/BRTB's plan for achieving Vision Zero by 2030, as enacted by law. ... *[continued]*

BRTB *(continued)*: The Maryland Department of Transportation is implementing a statewide Strategic Highway Safety Plan (SHSP) (<https://zerodeathsmd.gov/highway-safety-office/strategic-highway-safety-plan/>) utilizing a Zero Deaths approach. That plan is developed by a variety of safety stakeholders and governed by an Executive Council composed of the Secretary of the MDOT, the MDOT MVA Administrator, the MDOT SHA Administrator, the Secretary of the Maryland Department of State Police (Superintendent), the Executive Director of the Maryland Institute for Emergency Medical Services Systems, the Chief of Police of the Maryland Transportation Authority, and the Deputy Secretary of Maryland's Department of Health and Mental Hygiene. During the development of the Maryland SHSP, a vision of zero was identified to comply with the Maryland Vision Zero law and a target-setting methodology using five-year rolling averages and exponential trends was adopted to comply with federal reporting requirements. All traffic safety documents in the state of Maryland conform to the same target-setting methodology, including the SHSP, the MDOT Transportation Plan (MTP), the MHSO Highway Safety Plan (HSP), the MDOT SHA Highway Safety Improvement Plan (HSIP), MDOT SHA's Commercial Vehicle Safety Plan (CVSP), and the Traffic Records Coordinating Committee's (TRCC) Traffic Records Strategic Plan (TRSP). Additionally, all planning documents developed by the MHSO staff and all State-level reporting to the Governor use the SHSP Emphasis Area fatality and serious injury target-setting methodology. Per federal statute, the BRTB may adopt the State's safety targets or develop independent metrics. Since 2018, the BRTB has adopted the State's target-setting methodology, for consistency with safety performance reporting with partner agencies, and applied that to region-specific crash, serious injury, and fatality figures. To improve safety in the Baltimore region, each of the seven jurisdictions has begun developing or implementing a Local SHSP. The structure, goals, and targets of each Local SHSP are determined by a multi-disciplinary team of local partners and are not required to conform to the State approach. Speed on the roadway network is a major safety concern and the BRTB is adopting the Safe System Approach (SSA) by implementing a range of projects that address all five principles of the SSA. Those include the Look Alive campaign with Signal woman and the law enforcement training seminars that address the behavioral aspect, because research has shown that lowering speed limits on roadways does not translate into lower travel speeds with education, enforcement and engineering support. The BRTB also supports the implementation of Local SHSPs, all of which contain a speeding Emphasis Area, and local agency efforts to change speed limit policy and education, enforcement, and engineering improvements. ... *[continued]*

Multiple Topics *(continued)*

COMMENT 3 *(continued)*

9. For roadway projects that call for bicycle accommodations, modify the project description to commit to separated or protected facilities (where such commitment exists). ... *[continued]*

BRTB *(continued)*: Many of these projects are envisioned to be planned, engineered and constructed 10 or 20 years from now and have not progressed through required National Environmental Policy Act (NEPA) planning efforts that will determine details on the projects. We strive to provide enough detail for public vetting, recognizing that project details are not finalized until the completion of NEPA. Projects being identified in a regional long-range transportation plan does allow for projects to progress through NEPA. The Maryland Department of Transportation (MDOT) is committed to improving safety and multimodal accessibility for all users on its network. The Context-Driven: Access and Mobility for All Users Guide is a planning and design resource offering guidelines centered on establishing safe and effective multi-modal transportation systems. This guidance includes evaluating the feasibility of implementing proven safety countermeasures and innovative treatments, such as protected bicycle facilities, where feasible. Currently, MDOT is investigating opportunities to further align its regulations, policies and capital investments with its Context Guide principles and Vision Zero goals that create a safer transportation network for vulnerable road users. ... *[continued]*

COMMENT 3 *(continued)*

10. Provide an explanation as to how the preferred alternative will not induce additional demand for future roadway expansions. ... *[continued]*

BRTB *(continued)*: Current regional scale travel forecasting models are able to simulate some, but not all, elements of induced demand. Our model does recognize that when a roadway is improved, speeds will increase. This will result in more vehicles being attracted to this facility that may result in longer travel distances. The model also has a mode choice module that will look at alternate modes and may shift trips to/from transit or highways depending on the mode (highway or transit) travel time. These effects will show up in the Vehicle Miles Traveled (VMT) figures in [Appendix C](#) of *Resilience 2050*. Increased travel time reliability that induces additional household trip making is not captured in travel models. However, model household behavior trip rates are adjusted with the collection of observed data. Our modeling team continues to review national best practices and will try to include any modeling advancements that may improve our model in these areas. ... *[continued]*

COMMENT 3 *(continued)*

11. Set a goal for the LRTP to have disproportionately positive impacts on EJ TAZs. ... *[continued]*

BRTB *(continued)*: As mentioned previously, the regional long-range transportation plan is updated every four years and this is a good suggestion for the consideration of the next round of goals (goals and strategies for *Resilience 2050* were adopted via Resolution #22-6 in November 2021). In addition, the BRTB is near completion of an equity scan project. This project seeks to identify strategies to improve the integration of equity into BRTB ... *[continued]*

Multiple Topics *(continued)*

[from previous] ... policies and programs, with a focus on four key transportation planning documents. Several of the recommendations in the upcoming final report will relate to the LRTP, including project prioritization and analysis tools, and the BRTB will work to implement these recommendations in the next LRTP. ... *[continued]*

COMMENT 3 *(continued)*

12. Explain how the preferred alternative does not have disproportionate impacts on EJ TAZs, given that, for 9 out of 10 metrics, the preferred alternative yields improvements that are greater (or declines that are lesser) for Non-EJ TAZs than EJ TAZs. ... *[continued]*

BRTB *(continued)*: Sometimes percentage changes mask absolute number improvements for EJ Transportation Analysis Zones (TAZs). For example, as shown in Table 7 of [Appendix C](#), implementation of the projects in *Resilience 2050* is projected to increase the average number of jobs accessible by transit within 60 minutes by 43,780 (229,012-185,232) in EJ TAZs (a 23.6% change). The number of new accessible jobs by transit in Non-EJ TAZs is projected to increase by only 19,501 (91,978-72,477) (a 26.9% change). Absolute improvements for EJ TAZs are larger for 8 of the 12 measures (excluding the three auto proximity measures where EJ access is already near 100% and the average travel time for shopping purposes by auto measure, where EJ and non-EJ TAZs see near identical absolute increases). ... *[continued]*

COMMENT 3 *(continued)*

13. Set the baseline time frames for accessibility by both automobile and transit to be the same - 30 minutes. ... *[continued]*

BRTB *(continued)*: Reporting metrics by differing travel times for highway versus transit is a common practice in regional transportation planning across the nation. As reported by the US Census Bureau, 2019 American Community Survey, the 2019 Average Travel Time to Work by Means of Travel for drive alone is 26.4 minutes and 46.6 minutes for bus. Setting the transit bar too low may not paint an accurate picture of normal travel times. We can explore reducing the transit travel time in future updates to the long range transportation plan. ... *[continued]*

COMMENT 3 *(continued)*

14. Modify the public transit time calculation formula to factor in such metrics as headway adherence and schedule adherence. ... *[continued]*

BRTB *(continued)*: Unfortunately the regional travel demand model does not have the capability to adjust to match these factors with projections going out to 2050. ... *[continued]*

Multiple Topics *(continued)*

COMMENT 3 *(continued)*

15. Highlight the fact that, with the preferred alternative, transit travel times will remain 2-4x higher than automobile travel times. ... *[continued]*

BRTB *(continued)*: Unfortunately as mentioned previously, transit travel times are significantly higher nationwide versus highway travel times. ... *[continued]*

COMMENT 3 *(continued)*

16. Propose a preferred alternative that results in the following:
A significant shift away from trips taken in single occupancy vehicles.
A significant increase in transit ridership.
A significant increase in the average weekday mode share for transit.

BRTB *(continued)*: The BRTB shares your desire to focus on improving the transit system in the Baltimore region. As such, the Board adopted every candidate transit project that was submitted for consideration in *Resilience 2050*. The Board is also expanding planning efforts around other transit projects that could translate into new candidate projects for future plan updates.
We also support MDOT's Commuter Choice program that offers financial support for rideshare coordinators in each jurisdiction, a statewide Guaranteed Ride Home program and other programs such as the incenTrip mobile app. On the pedestrian side consider Walktober. October in Maryland becomes WALKTOBER, a month where the Maryland Department of Transportation (MDOT) and other partnering agencies promote and host events and webinars spotlighting Maryland pedestrians' safety, health and commuting options in current walk programs and Initiatives.
The Maryland Department of Transportation, the Maryland Department of Planning, the Maryland Department of Health, MDOT State Highway Administration, Maryland Highway Safety Office, Maryland Department of Natural Resources, America Walks, and AARP annually share a series of informational resources and free webinars for pedestrians throughout the month of October. The weekly webinars are tailored to interest pedestrian enthusiasts, advocates, planners, and residents.
In closing, thank you again for your comments.

Other Topics

COMMENT 1

Anonymous: (1) Timeline - Every time I see projects like this, the projections are that things will be built and usable by like 2030, 2040, etc. I have lived in Baltimore 10 years, and have biked, walked or taken the bus through all of it. I don't want a better bike lane system when I am 50. I want it yesterday. The slowness of all these types of projects are their death knell, as opposition builds faster than infrastructure does, and the high cost and long timeline become reasons not to do this type of work. No leaders want to sign on, absorb all the blow back about costs, headaches, etc., and then let someone 4 election cycles later take credit for a ribbon cutting, meanwhile every political challenger runs on infrastructure opposition.

(2) Lack of Faith - How are we supposed to have faith in this project when all that ever seems to get built is more roadway, and at best mass transit gets some fancy map, a repainted bus, but little actual improvement. Seeing any money dedicated to roads is disheartening. The debacle with the Tiding's Bridge "bike" lane shows how hopeless these efforts often are. I will have in these projects when someone from the state comes out and tells people "no more roads, cars are not the priority, deal with the streets and traffic you have." In the end these projects get watered down once a few people complain about difficulty driving, losing traffic lanes, or even 1 parking spot disappearing.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We agree that the slow pace of infrastructure projects can be frustrating. It can be disheartening to see timelines of years or decades before meaningful changes are implemented. The reality is that planning, designing and constructing major transportation infrastructure projects takes time. Key steps such as public involvement, addressing community concerns and environmental reviews are complex and time consuming, but are also vital to project success. While progress can be slow, we have to consider each phase carefully to ensure projects are effective and sustainable.

Opposition and cost are also common challenges for infrastructure projects. The projects in *Resilience 2050*, while broadly scoped at this stage, will require significant investments to implement. As projects move from the conceptual to the implementation phase, they enter the short-range Transportation Improvement Program, which details projects utilizing federal funds over the next four years. This process can take time, and opposition to projects as well as securing funding to move a project forward are often challenges. However, these elements make it even more crucial to spend significant time and effort throughout the planning and implementation process to address concerns and communicate the value of projects.

We think that *Resilience 2050* represents a step in the right direction for transit, bicycle and pedestrian investments. *Resilience 2050* includes over \$4.8 billion in funding for transit expansion projects throughout the region. These projects include two major transit corridors, the East-West and North-South Transit Corridors, seventeen transit hubs throughout the region and several new express bus and BRT routes, among others. In addition, nearly 3/4 of the projects in *Resilience 2050* include bicycle and pedestrian facilities as part of their project scope. *Resilience 2050* also includes \$250 million in funding set-aside for strategies improving air quality in the Baltimore region. Sixteen regional bicycle and pedestrian priority projects are included in *Resilience 2050* as part of this set-aside funding (see page 30 of [Chapter 7](#)).

And we encourage you to continue to be involved in the planning process for future BRTB products. An upcoming project you may be interested in is the Vision for a Regional Bicycle Network, beginning in summer/fall 2023. The regional bicycle network project will include extensive public engagement and the opportunity to update the list of top regional active transportation priorities developed in spring 2022.

Thank you again for your comment.

COMMENT 2

Jim E: Important to get this Right...but very challenging !! Relieve congestion, improve infrastructure, safety, mass transit without increasing taxes! ?? We GET what we pay for! Entertainment/Escapism "more important" to most citizens (vs. paying taxes for maintenance & improvement investments)?!

Other Topics (*continued*)

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The significant challenges you raise regarding congestion, maintenance, safety and transit emphasize the importance of long-range planning. Identifying regional goals and evaluating projects based on those goals helps to ensure that future transportation investments yield a safe, accessible and equitable transportation system. It's also important to reevaluate plans. The long-range transportation plan is a living document that can be amended and is updated every four years.

While we work hard on public outreach materials and gathering public input, it can be a challenge to engage people in the long-range planning process. This makes it even more crucial to spend time and effort communicating how long-range projects with timelines of years or decades can yield meaningful benefits for transportation. We encourage you to continue to engage with and comment on future BRTB plans.

Regarding taxes, financial trends over the last several L RTPs have shown increases in system preservation and operations costs. As such, system expansion funds have decreased to ensure that we adequately maintain and operate our current transportation system. This strain on Maryland's transportation trust fund was recognized by the General Assembly this past session. The 2023 Senate Bill 024 establishes a Maryland Commission on Transportation Revenue and Infrastructure Needs. The Commission will review, among other items: 1) Revenue trends, 2) Trends in operating and capital expenditures, and how existing resources have constrained programming, and 3) Methods other states are using to fund transportation needs. The Commission is scheduled to provide an interim report on or before January 1, 2024.

Thank you again for your comment.

COMMENT 3

Paul Emmart: Where is the registration link for the outreach meetings? No one has the time to go to in person meetings at dinner time. If you intended this, then please state it! Otherwise the outreach will result in a poor showing.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. Details about our public meetings to discuss the *Resilience 2050* plans in more detail are listed on the second of three tabs on our *Resilience 2050* PublicInput project page, 'Public Meetings.' In addition to in-person meetings with each of our jurisdictional partners at various times on weekday evenings throughout the comment period, we hosted a virtual meeting on Wednesday, May 24 at 12 p.m. We apologize if you missed us, and encourage you to view a recording of the meeting available on our YouTube channel (@BaltoMetroCo).

Thank you again for your comment.

COMMENT 4

Bill Marker: Comment one. I saw the note in Sunday's paper and went have a second comment I wanna make, but getting to the meeting was very problematic. There is nothing on the ad that says how'd to get to the meeting. It just says join for a virtual meeting on May 24th at 12:00 PM And then I tried doing the QR code and that just led me the information. I'm not sure how I, what I finally kicked in to get to it, but the, the ad is very deficient, I would say. I had to get to the meeting. And two, I have a procedural concern that I live in the Barry Circle, part of big town, a mile west of the Harbor in Baltimore. Two, I have a procedural concern that could affect substantive. I saw there's a meeting in each county, but counties at different sizes. I'm afraid that could give over representation and the results to smaller counties. So I would suggest that meetings should be probably each state senate district would essentially be giving a me equal meeting per population. I just, I think that, and certainly not all of Baltimore City can make it down easily. Make it to gay Street. You're all about transportation. So, you know, so I am, those are my comments. Thank you.

Other Topics (*continued*)

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We're glad that you saw our print ad, and apologize that we weren't able to include more details beyond the address of each meeting due to space and budget limitations. Going forward, we will more carefully consider ways to share more detailed information about how to access in-person meetings. Regarding the number of meetings, we are limited by the duration of the comment period and the bandwidth of our staff. However, we will consider how we can continue to make our opportunities for public involvement more accessible, particularly as we navigate a return to in-person programs. We would welcome the opportunity to work with any elected officials, community groups or other organizations looking to help us engage more of our community members in our transportation planning efforts. Thank you again for your comment.

COMMENT 5

Melanie: The BRTB plans have finely detailed road widening projects and hugely ambiguous language about anything else from micromobility to transit infrastructure. The lack of any detail on what these goals are for transit, while having highly detailed goals for the expansion of personal car level of service, indicate priorities counter to the interests of Marylanders facing climate catastrophe and ongoing upkeep shortfalls on the already overbuilt and oversprawled road system. Who made these decisions that will actively hurt Marylanders for generations to come?

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The BRTB always struggles between trying to provide detailed versus digestible information. The current draft plan is 346 pages long and we look for other ways to concisely tell the story of the plan. We have heard that the public responds best to graphic information and the BRTB has chosen to provide an interactive project map and ESRI Story Map in response. Many of these projects are envisioned to be planned, engineered and constructed 10 or 20 years from now and have not progressed through required National Environmental Policy Act (NEPA) planning efforts that will determine details on the projects. In the case of new transit service, we provide as much detail as available while recognizing that details such as the specific route, stations, frequency, and even mode (in some cases such as the East-West and North-South transit corridors) will not be known without further planning. Most details are not yet known for roadway projects, though most roadway projects involve expansion of already existing facilities. Candidate projects submitted for consideration into *Resilience 2050* have gone through various levels of local development and review. Locally sponsored projects have more details provided in each jurisdiction's [Annual Priority Letter](#). We strive to provide enough detail for public vetting, recognizing that project details are not finalized until the completion of NEPA. Projects being identified in a regional long range transportation plan does allow for projects to progress through NEPA. Thank you again for your comment.

Project Specific

COMMENT 1

Anonymous (Rivers Edge neighborhood): Please connect Rivers Edge neighborhood (intersection of MD 29 and MD 32) to the Columbia walking and biking trail network via Holiday Hills Park.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. A new pathway connection is being studied by the Maryland Department of Transportation. This project is in the early stages, but the overall goal is to investigate the opportunity for a bicycle and pedestrian path between the Rivers Edge Community, Clarksville Hunt Community, and the Johns Hopkins Library Services Center. Thank you again for your comment.

COMMENT 2

Anonymous (MD 295/I-695): Perhaps it's outside of the scope of this project but I'd like to suggest studying and correcting the I-295/I-695 interchange on the south side of Baltimore. The number of vehicles that fail to negotiate the on/off ramps is ridiculously high.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We appreciate your inquiry regarding safety concerns at the I-695 interchange with MD 295 in Anne Arundel County. MDOT State Highway Administration is currently reviewing the interchange geometry of the ramps and will consider potential improvements upon completion of the review, anticipated in fall 2023. Thank you again for your comment.

COMMENT 3

Anonymous (MD 161 and MD 155): Remove current stop sign configuration and install a roundabout at intersection of Rt. 161 and Rt. 155 in Harford County. The current volume of traffic causes numerous instances of individuals not observing/adhering to the stop sign. This subsequently causes dangerous navigation of the intersection.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We appreciate your inquiry regarding intersection safety concerns along MD 155 (Level Road) at MD 161 (Darlington Road) located in Harford County. MDOT State Highway Administration is currently conducting a review of this location and will consider potential improvements upon completion of the review, anticipated in August 2023. Thank you again for your comment.

Project Specific *(continued)*

COMMENT 4

Joel Binkley (several projects): I live outside Annapolis not far from where the new Parole Transit Center is being constructed. I frequently drive the roads around Parole, US 50/301, I-97, and MD 178/General's Highway. I strongly support the following elements of the Resilience 2050 Plan: Widening I-97 north of US 50. There is constant congestion on northbound I-97 in the afternoons where traffic existing US 50 and MD 665 condense down to two lanes of northbound traffic on I-97. I would be surprised if traffic numbers warrant a full interchange at Crownsville/MD 178 but I wouldn't be opposed. "Express bus" services from Annapolis/Parole to New Carrollton, Fort Meade/Columbia, and Glen Burnie. More of these bus services in all directions from Annapolis will help regional transportation, ideally when combined with HOV or Bus only lanes on major highways. Completing the missing segments of the South Shore Trail through Crownsville and Parole. I would strongly advise a connection to Rolling Knolls Elementary school via Epping Forest road to allow more youth the opportunity to bike to school. Improvements to MD 214 including intersection improvements at Riva Road and MD 424. Please go even further and plan for future rail transit connections between New Carrollton and Annapolis (extend the orange line). Preserve the median of US 50 for a potential rail line as was constructed in Northern Virginia with the silver line. If it makes sense feasibly to extend a light rail line south of Washington DC to Waldorf (see SMRT plan) it surely make sense to connect Maryland's capital to the Metro system via New Carrollton.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We appreciate the support of the improvements to I-97, MD 214, expansion of regional express bus and completion of the South Shore Trail as proposed in *Resilience 2050*. Regarding the extension of rail between Annapolis and New Carrollton, we support the importance of a regional transit link between Annapolis and Washington, DC. This connection is also identified as a regional transit corridor in the Regional Transit Plan for Central Maryland and regionally significant transit connection in the draft Statewide Transit Plan. While future considerations for this connection could include rail, or some other form of higher capacity transit, in the next 25 years we anticipate express bus service as being the most likely to get implemented within the fiscal constraints of this plan. If we were to allocate the amount of resources required towards a rail connection for this corridor in *Resilience 2050*, numerous other projects would have to be eliminated from the plan to stay within the anticipated revenues as shown in the *Resilience 2050* Financial Plan ([Chapter 6](#)). It is our preference to provide express bus service at a high enough frequency to provide an attractive alternative to single occupancy vehicular travel. Should that service be provided as planned in *Resilience 2050*, the ridership for that route will provide justification for further enhancements of that service including increased frequency and potentially an upgrade to BRT or rail, or other high frequency mass transit options. Anne Arundel County will continue to advocate for the expansion of regional transit services, including in the annual priority letter to the Maryland Department of Transportation for inclusion in the annual Consolidated Transportation Program. Regarding the recommended connection of the South Shore Trail to Rolling Knolls Elementary School, Epping Forest Road has been identified as a secondary bicycle network connection in the County's newly adopted pedestrian and bicycle master plan, [Walk and Roll Anne Arundel!](#) (shown on the Region 6 map on page 50). Whether the connection from Rolling Knolls Elementary to the South Shore Trail happens as part of the trail construction or as a separate project by the County in keeping with the investment priority of providing Safe Routes to School from the County's transportation master plan, [Move Anne Arundel!](#), would be determined during the design of Phase III of the South Shore Trail which will include public involvement at that time. Thank you again for your comment.

COMMENT 5

Jim E (I-70/I-695 interchange): I 70/ I 695 connection – reduce outrageous congestion!! Maybe by improving Public Transit!

Project Specific *(continued)*

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The BRTB's 2024-2027 Transportation Improvement Program (TIP) includes a project to replace bridges and all ramps at the I-695 and I-70 interchange. This \$275 million MDOT State Highway Administration project will improve operations at the interchange. Construction is anticipated to begin in spring 2025 and be completed in fall 2028. Regarding public transportation, *Resilience 2050* includes over \$4.8 billion in funding for transit expansion projects throughout the region. These projects include two major transit corridors, the East-West and North-South Transit Corridors, seventeen transit hubs throughout the region and several new express bus and BRT routes, among others. Thank you again for your comment.

COMMENT 6

David Highfield (Carroll County transit): Mass transit could be helpful if extended into Carroll County.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The policy of Carroll County, through the adopted plans and Board of County Commissioners' resolutions, has always been to provide transit services only within the County. There are currently no plans to expand this type of service outside of the County. The most recent Transit Development Plan (TDP), which provides a plan for public transportation improvements in the County over a five year period, reinforced this policy. Thank you again for your comment.

COMMENT 7

Turner Station Conservation Teams Inc. (Gloria Nelson, President) (Broening Highway interchange): On behalf of our beloved community, Turner Station Conservation Teams Inc. (TSCT) is opposed to the I-695 Broening Highway interchange and its threats to our community's integrity, public health and natural environment. Turner Station is a waterfront community surrounded by heavy industry and suffering from the collapse and toxic legacy of Bethlehem Steel, its primary industrial employer. TSCT diligently works to revitalize our historic African American community of approximately 3000 residents, a majority minority population with low income above the regional average. We face infrastructure issues, housing challenges, flooding, poor air and water quality, a lack of green infrastructure, etc. With the assistance of several partners, we are finally making progress in our struggle against a history of environmental injustice. The I-695 at Broening Highway Interchange is an unprecedented challenge for our community. It's so ironic that BRTB's theme is "Resilience 2050: Adapting to the Challenges of Tomorrow". We are working with The Nature Conservancy and our Board recently completed a TSCT Vision Strategy Session to revisit our vision, mission and strategies to create a more resilient community organization to adapt to the challenges of tomorrow. Now it is clear that our present and future greatest challenge is facing us - an interchange at our back door at I-695, Exit 44. We're aware that Congressman Dutch Ruppersburger obtained 1.5 million dollars for planning a full interchange to support Trade Point Atlantic's increased growth and traffic. We also noted that we're now discussing a partial interchange. Does that mean that our ground zero community's quality of life and health consequences will be only partially impacted when our ailing residents are studied in the future? Is the economic success of Trade Point Atlantic more consequential than the health and safety of our vulnerable residents? Turner Station is the largest historic African American community in Baltimore County and a poster child for inequity. Your decision will make a strong statement about how Baltimore County and the State of Maryland plans to adapt to the challenges of tomorrow. We look forward to working together for the best possible outcome for the community of Turner Station.

Project Specific *(continued)*

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. This comment, in full, will be entered into the record of *Resilience 2050* and re-shared with Baltimore County when the upcoming feasibility study begins. A feasibility study is a detailed analysis that considers all of the critical aspects of a proposed project in order to determine the likelihood of it succeeding. The study is designed to help decision-makers determine whether or not a proposed project or investment should be pursued. There will be an opportunity for Turner Station to weigh in at that time, which is before a decision is made to move forward. Thank you again for your comment.

COMMENT 8

James Wilkinson (Snowden River Parkway): # 21: Widening of Snowden River Parkway from four to six lanes from Broken Land Parkway to Oakland Mills Road. Agree this is a congested road, I have concerns about impacts to residences and forest buffers on north side of Snowden River Parkway and access to businesses also on north side of Snowden River Parkway. A widened roadway will increase noise levels to residences from increased traffic and removal of forest. Currently we are experiencing noise issues from modified car exhaust systems and motorcycles on Columbia's streets. How will noise levels be addressed? I also would appreciate more information on transit options and ideas to divert heavy truck traffic away from this area of Snowden River Parkway. Thank you.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. This project's goal is to deliver improvements along the corridor to address both congestion and safety with staged projects at intersections to address car congestion as well as new sidewalks and pathways along the corridor. While there might be some short sections, primarily at intersections, where the road will be widened from the curb, a significant portion of the project will use the existing medians to add capacity. Additionally, these types of projects also include street trees, which will address some of your noise concerns. This corridor is also served by two Central Maryland RTA routes and MDOT Maryland Transit Administration commuter bus stops at the two Park-and-Ride lots; access to these lots is also being improved with a new pathway from Broken Land Parkway and Snowden River Parkway. We understand your concerns about heavy truck traffic. However, Snowden River Parkway provides critical truck access to the numerous business located in the industrial parks on the south side of Snowden River Parkway and this road will continue to serve this role. Regarding your concerns about noise from motorcycles and cars, this is a vehicle regulation issue that would be best addressed by the Howard County Police Department who have the authority to issue tickets to drivers whose vehicles violate state and federal vehicle noise standards. Thank you again for your comment.

Transit

COMMENT 1

Anonymous: Expanding reliable, fixed-rail transit is key to Baltimore's future. Currently its difficult to get around the city without a car besides using unreliable buses which get stuck in traffic. What fixed rail transit does exist (metro and light rail) doesn't go many places people want to go and doesn't link well to other modes of transit.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. MTA is leading multiple efforts to expand the current transit system. The Regional Transit Plan, published in 2020, identified thirty corridors to be studied. Each corridor has or is projected to have sufficient ridership demand to support all-day, frequent transit and would require additional infrastructure investment to fully support successful transit. Additional study is needed to determine mode, specific route or alignment, levels of service and station locations. Investments may include dedicated right-of-way, signal priority, shelters or stations, and other customer amenities. Currently, MTA is advancing the Red Line which will provide an essential east-west connection from Woodlawn to Bayview with the potential for expansion to eastern Baltimore County. The North-South Corridor Study is evaluating existing and future transit demand between Towson and Downtown Baltimore. We are leading a pilot feasibility study for mid-opportunities corridors like BWI Airport to Columbia Town Center. Thank you again for your comment.

COMMENT 2

Anonymous: Around the year 2000 we were presented with a transit system for Baltimore. In it were the continuation of the Green Line (Metro) and the Blue Line (Light Rail). What was standing out most about these two lines was that they did not connect. When the public was planning the Red Line, again there was no connection with either existing lines. The public converted the proposed bus line that was to be the Red Line to a light rail line that would be grade separated at various points, primarily through the CBD, utilizing Charles Center as a hub. (Charles Center was designed to handle a north-south and an east-west metro line). Then, in 2000, the public input took the B&O Museum, Camden Yard, and M&T Bank Stadium into mind when planning the route. Include University of Maryland into the mix and tie into the Metro line and the cost of running might be reduced, and we get direct connection of the two lines. There was no thought in this latest plan to extend the green line to the MARC Line. This was presented back in 2000 and would provide access for those living along the MARC line to Johns Hopkins. The Green Line, then, was proposed to extend to Morgan State. Is that in the master plan? Overall, we should be looking at destinations not only at Johns Hopkins Bayview but also Trade Point Atlantic. We should also be looking at existing lines to expand development at stations. Plus, we should be looking at the overall rail network of the region to see which lines can be utilized as Metro/light rail lines.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The green line was identified as part of the 2002 Baltimore Regional Rail System Plan; however, the project was not moved forward for cost-effectiveness reasons. More recently, MTA and its regional partners created the Central Maryland Regional Transit Plan, establishing a vision for transit over the next 25 years. This plan identified Regional Transit Corridors demonstrating demand for major investments in high-quality transit options. Two corridors were identified for Early Opportunity Corridor Studies: The East-West and North-South corridors, both the East-West and North-South transit corridors are included in *Resilience 2050*. The East-West Feasibility Study findings reaffirmed the need for transit along the Red Line preferred alternative alignment, as well as demonstrating the need and strong support for other areas that were studied. As a result, MTA will look at expansions from Bayview to Eastern Baltimore County as part of the Eastern Baltimore County Access Study. Thank you again for your comment.

Transit (*continued*)

COMMENT 3

Anonymous: The lack of a true vision for a more regional transit network that centers on existing infrastructure in town centers is truly disappointing in the face of a climate crisis that world has to confront over the next 30 years. The focus of more than 60% of the funding in this plan is either expansion or improvements of roads that will encourage people to use cars more, which will increase greenhouse gas emissions and result in poor land use. The Baltimore Metropolitan Council needs to seriously consider how transportation will look in 30 years in the face of a changing climate and financial reality. Cars force municipalities to use land in an inefficient way that costs more for the build-out and maintenance of infrastructure and services. We need to re-think the car-dependent system that this plan continues.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The Central Maryland Regional Transit Plan, developed by the Maryland Transit Administration, serves as a guiding document for transit projects for the next 25 years. This plan, completed in 2020 is scheduled for an update in the next few years. This plan focuses not only on regional service but also local service around town centers. A number of local transit agencies do provide transit in town centers, and MDOT MTA connects to a number of those local transit services. Transit agencies are continuing to develop additional circulator services that should reduce car trips. Thank you again for your comment.

COMMENT 4

Anonymous: If you want this city's population to ever rebound, you're gonna have to get serious about investing in mass rapid transit. A light rail that is not only reliable but it not concentrated in the wealthiest and most gentrified part of the city. A city where everyone can theoretically get around comfortably, quickly, and affordably without a car. Otherwise there's no hope of the city ever rebounding again. No matter how "affordable" the housing stock is.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. MTA is leading multiple efforts to expand the current transit system. The Regional Transit Plan, published in 2020, identified thirty corridors to be studied. Each corridor has or is projected to have sufficient ridership demand to support all-day, frequent transit and would require additional infrastructure investment to fully support successful transit. Additional study is needed to determine mode, specific route or alignment, levels of service and station locations. Investments may include dedicated right-of-way, signal priority, shelters or stations, and other customer amenities. Currently, MTA is advancing the Red Line which will provide an essential east-west connection from Woodlawn to Bayview with the potential for expansion to eastern Baltimore County. The North-South Corridor Study is evaluating existing and future transit demand between Towson and Downtown Baltimore. We are leading a pilot feasibility study for mid-opportunities corridors like BWI Airport to Columbia Town Center. Thank you again for your comment.

Transit (*continued*)

COMMENT 5

Anonymous: I just want transit to be reliable and be easily tracked on a phone app. Currently neither are happening. Canceled busses and late busses are main reasons why more people don't ride. I'd love for busses to come more often than once an hour so if one does get canceled you can get the next one instead of having your whole day ruined.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. MTA has several initiatives underway to improve our on-time performance and reduce cut runs. Recent operator hiring initiatives have included a one day hiring event, social media promotion, and events with partner agencies like the Baltimore City Mayor's Office. In addition to hiring additional bus operators MTA is working on infrastructure improvements to make buses faster and more reliable. MTA has grown our dedicated bus lane network significantly through projects like North Avenue Rising and the addition of three bus lane pilot corridors on York Road, Harford Avenue, and Charles/Light Streets. Additionally, MTA has ongoing efforts to steadily improve the reliability of real time data both as reported to apps like Transit App, and to increase the number of real time information signs at busy stops. Thank you again for your comment.

COMMENT 6

Jon Foster: We need better rapid transit in popular places and we need it FAST. Not in 20 years, not in 10 years. Planning and implementation need to be much much faster. Otherwise, things will have changed by the time the FEIS is finalized and it won't make sense. Also, we must put investment into our marginalized communities, and stop looking at transit as a revenue source and more like the public good it is (like other publicly paid things -- roads, fire fighters/police, etc.). So let's open two subway/light rail lines with grade separation, through popular places that go to destinations that are underserved and let nature do the rest!

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. MTA is leading multiple efforts to expand the current transit system. The Regional Transit Plan, published in 2020, identified thirty corridors to be studied. Each corridor has or is projected to have sufficient ridership demand to support all-day, frequent transit and would require additional infrastructure investment to fully support successful transit. Additional study is needed to determine mode, specific route or alignment, levels of service and station locations. Investments may include dedicated right-of-way, signal priority, shelters or stations, and other customer amenities. Currently, MTA is advancing the Red Line which will provide an essential east-west connection from Woodlawn to Bayview with the potential for expansion to eastern Baltimore County. The North-South Corridor Study is evaluating existing and future transit demand between Towson and Downtown Baltimore. Baltimore Metropolitan Council is leading a pilot feasibility study for mid-opportunities corridors like BWI Airport to Columbia Town Center. While these larger investments proceed through the planning process MTA is leading multiple projects that focus on improving service today, particularly for core bus. For instance, MTA's Fast Forward Program is investing \$43 million in our core service area by accelerating projects that create a transit system that is more reliable, accessible, and easier to use. Investments include, Bus Stops and Shelters, Wayfinding, Real-Time Information Signs, and dedicated bus lanes. The goal of these investments is to improve the customer experience and improve reliability across the system. Thank you again for your comment.

Transit *(continued)*

COMMENT 7

Greater Washington Partnership (Kathy Hollinger, CEO): The Greater Washington Partnership (the Partnership) commends you and your team for the Resilience 2050: Adapting to the Challenges of Tomorrow (Resilience 2050) long-range transportation plan and the Draft 2024-2027 Transportation Improvement Program (draft TIP). These two plans detail the next 30 years of transportation priorities and investments in the Baltimore region which will shape the long-term economic health, vibrancy, and competitiveness of the region.

The Partnership is a first-of-its-kind nonprofit alliance of the region's leading employers in Maryland, Virginia, and Washington, DC. In 2018, the Partnership released the Blueprint for Regional Mobility, an action-oriented strategy to transform our region's transportation system into an asset that ensures our global competitiveness, expands access to opportunity, and removes barriers to mobility from Baltimore to Richmond.

The Partnership is also committed to Baltimore's Transit Future, a collaborative effort with the Greater Baltimore Committee to ensure that the region has a world-class public transit system to create shared economic prosperity and catalyze inclusive growth. Already, more than 70 Greater Baltimore businesses and institutions have rallied their support behind a shared strategy to invest in the region's transit system to drive inclusive economic growth across the region.

As you finalize the two draft plans, I encourage you to consider the following comments:

- The Partnership applauds the inclusion of transit projects like the East-West Transit Corridor and the North-South Transit Corridor for their capacity to spur transformational and inclusive economic development. In conjunction with other transit and regional rail projects like a new Aberdeen MARC Station, a Bus Rapid Transit corridor on US 1, and the Light Rail and MARC rolling stock fleet overhauls, the Baltimore region can advance a pipeline of transit investments to bolster economic competitiveness by connecting residents to more job, healthcare, and educational opportunities, while creating high-quality jobs and workforce development opportunities.
- A robust, multi-modal transportation network will be critical to achieving the goals laid out in Resilience 2050, including goals to improve accessibility, mobility, system safety, and promote prosperity and economic opportunity. By providing frequent and reliable alternative modes of transportation, the Baltimore region can advance economic opportunity while building a transportation system that is safer, more resilient, and more equitable. Investments into transit, pedestrian, and cycling infrastructure as well as the roadway maintenance and improvement projects detailed in Resilience 2050 will create jobs and spur inclusive economic growth across the region.

Sustained investment to transform the transportation network into a globally competitive asset will be critical to the region's long-term economic health and vibrancy. Transformative projects, such as the East-West "Red Line" transit corridor, will define regional mobility and access for the next generation. We encourage the Baltimore Regional Transportation Board to continue to prioritize innovative infrastructure projects that can bolster economic competitiveness and create a more connected and inclusive region.

I thank you for the consideration of the Partnership's comments and our shared goal of making this region, from Baltimore to Richmond, the best place to live, work, and build a business.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. We thank you for the Partnership's support for the wide range of transit and multi-modal projects selected for inclusion in *Resilience 2050*. We do believe the goals that were adopted will lead to a robust and sustainable transportation network that allows economic opportunity to all in the region.

Thank you again for your comments.

COMMENT 8

Mark Gregory: Please include transit line row acquisition for coordinated national interconnectivity. We need coast to coast and Country to Country high speed access.

Transit (*continued*)

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The BRTB and BMC staff participate in conversations about national connectivity including the Federal Railroad Administrations Long-Distance Service Study and has also had briefings on proposed AMTRAK improvements in and beyond the region. The BRTB continues to monitor and prepare for the proposed future expansions. Thank you again for your comment.

COMMENT 9

Marietta Hassan: I live in Baltimore county Maryland Reisterstown to be exact. If I wanted to go Towson using public transportation; I would HAVE to go all the way downtown Baltimore to catch a train that would take me back up to where I started, then back Towson. About a forty-five minute train ride, which would only take less than twenty minutes by car.
Commuters would save much expenses, wear and tear on car.
Fans from Carroll County would not have to drive into the city for Orioles or Raven games (can you imagine how much parking this would free up).
Shopping could be more convenient from Lexington Market and other shops.
Merchants would have better chance of improving new customer base and being more diverse.
I can not believe no one has explored this. You have brought the inner city into the county, now you must expand, giving customers and residents the freedom to move about and travel shop outside their local jurisdictions.
Commute, explore, diversify.
Pennsylvania is not that far away. You have subway/light rails traveling to DC and suburbs, why not to PA. Thank you for taking the time to read.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. Regarding your feedback on public transportation within the Baltimore region, MDOT Maryland Transit Administration, in partnership with Baltimore City and Baltimore County, spent last year identifying a range of options to improve existing and future transit between Towson and Downtown Baltimore with the North-South Corridor Study. Several options are now being reviewed for feasibility and will be narrowed down to 3-4 alternatives that will be explored in more detail. While this study is in preliminary stages, it represents a step forward in delivering major transportation investment to the region. Thank you again for your comment.

COMMENT 10

Patrick Ireland: As someone that lives along this corridor, I would like to see the north south corridor transit project moved from 2040-2050 expenditure to an earlier time frame (maybe 2028). To me this would have a huge beneficial impact on a growing area of the city and county over the numerous roadway expansion projects planned in its stead.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. MTA, with its regional partners, is working to advance the RTP North-South corridor study. This study is wrapping up the feasibility phase with next steps including an Alternatives Analysis to prepare for ... *[continued]*

Transit (*continued*)

[from previous] ... future design phases. A construction timeline is dependent upon successful selection of an alternative, completion of design and development of a financial plan. Thank you again for your comment.

COMMENT 11

Gerald Johnson: We need more transit system in Baltimore city and Baltimore County also when MTA going to upgrade the light rail system extension also and the subway line two

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. In 2020, MTA and its regional partners created the Central Maryland Regional Transit Plan, establishing a vision for mobility over the next 25 years. This plan identified Regional Transit Corridors demonstrating demand for major investments in high-quality transit options. The East-West Corridor and the North-South Corridor from Towson to Downtown Baltimore City were identified as early opportunity corridors and are being studied further to identify the best transit modes and alignments that will benefit the communities they connect. Thank you again for your comment.

COMMENT 12

Jay Louis: More resources need to be allocated toward transit expansion. Relative to peer cities against which we are competing, Baltimore City's ongoing shrinkage indicates a lack of demand for what this city has to offer. Uncoincidentally, the city is not growing, in large part because (regardless of the reasons) the transportation infrastructure needed to support growth and economic competitiveness has not been invested in. For too long, the prevailing mindset in this region has seemingly been that transit is simply a means of moving people from point A to point B. However, transit expansion is also a means of directing growth and realigning a region's urban form; leading cities around the world continue to demonstrate this. Does Greater Baltimore truly desire to be such a leading city and region?

Baltimore would easily grow by much more than a total of 4.1% through 2050, if city and state leaders are willing to do the difficult work of committing to becoming a tremendously more micromobility & transit-connected city than we currently are. A recent Live Baltimore study projected that 5,000 - 7,000 households would rent or buy new or significantly renovated homes each year over a five year period, if such homes were added to the city's housing stock. How much more could we do in 30 years by investing in transit and facilitating the creation of new infill housing opportunities? What's needed is: 1) full-throated support for the idea that Baltimore will be a city where car-ownership is an afterthought, and 2) unwavering focus on building the corresponding infrastructure that brings this idea to life. In particular, Baltimore should be in pursuit of more fully grade-separated rail transit that provides a "turn up and go" level of service to the region, with light metro as the designated technology (not to be confused with light rail).

Looking at the state of our transit system today, one of my greatest concerns is that the world is passing Baltimore by; but Baltimore/Maryland is not learning from the world, even as we claim a desire to build a "world-class" transit system. With the right public policy and investments, Baltimore City can be a global commercial hub in the making. As such, we should aspire to forward-looking, global-standard transit service and technology, around which significant densification and growth can be directed. Surface-running light rail is backwards-looking technology that we should not be in a rush to further embrace if that can be avoided. By contrast, light metro allows for faster, automated, high frequency service, at low operating costs that could never be achieved with light rail. Running a rail transit service at relatively low cost would then allow us to save our precious few operating dollars to develop as extensive and frequent a bus system as possible. In thirty years, Baltimore's population density has the potential to be at or above the 10,000/square mile mark, perhaps comparable to where Washington, DC and Philadelphia are today (11,000 - 12,000/square mile). At that point surface-running light rail on downtown streets would be unprecedented for any high-density major city along the northeast corridor. ... *[continued]*

Transit (*continued*)

[from previous] ... Understandably, the pursuit of fully grade-separated rail transit will not be cheap. But again, we must strive to learn from what we see in the world around us in order to deliver high capacity transit infrastructure at reasonable costs. Maybe that means importing light metro to Baltimore via public-private partnership with a proven entity like CDPQ Infra, the builder of Montreal's new RER regional light metro system. Or maybe we can follow modular and prefabricated construction methods used in Madrid, Spain and Qingdao, China that have allowed for major time and cost savings in subway building.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. MTA is leading multiple efforts to expand the current transit system. The Regional Transit Plan, published in 2020, identified thirty corridors to be studied. Each corridor has or is projected to have sufficient ridership demand to support all-day, frequent transit and would require additional infrastructure investment to fully support successful transit. Additional study is needed to determine mode, specific route or alignment, levels of service and station locations. Investments may include dedicated right-of-way, signal priority, shelters or stations, and other customer amenities. The creation of a better network will increase ridership by providing better, more convenient access to more destinations. Currently, MTA is advancing the Red Line which will provide an essential east-west connection from Woodlawn to Bayview with the potential for expansion to eastern Baltimore County. The North-South Corridor Study is evaluating existing and future transit demand between Towson and Downtown Baltimore. Baltimore Metropolitan Council is leading a pilot feasibility study for mid-opportunities corridors like BWI Airport to Columbia Town Center. Thank you again for your comment.

COMMENT 13

Earl Lowe: for subway Reisterstown road station should become a transit hub. More shopping and businesses in that area

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. In 2021 the Maryland Department of Transportation entered an agreement with Wabash Development Partners to develop approximately 25 acres of unimproved land and surfaced parking lots. This is an ideal space for Transit-Oriented Development (TOD) which could include additional shopping and business amenities. Thank you again for your comment.

COMMENT 14

Maggie: By making much needed updates to Baltimore's public transit, people will have access to more of the city and thus benefiting the economy. In my observations since moving from DC to Baltimore in the last five years, people do not choose to take public transit. I have encountered first hand how unreliable, indirect, and unsafe the system is due to decades of neglect. Improvements should focus on making transit a reliable, efficient, and safe option for everyone. This could consist of having designated more bus lanes to help buses move through traffic. Currently, taking bus can be up to 3x the commuting time. Invest in options to connect the main hubs tourists like to go to for example Federal Hill to Waterfront to Canton. Currently it's quicker to walk or take the water connector then rely on any direct route that connects the city. Finally, investing in the light rail that connects the stadiums to the county as well as Hamden to the city can improve movement to different areas. Baltimore is unique in how small it is compared to ... *[continued]*

Transit *(continued)*

[from previous] ... other cities yet everything requires a car to access. Tourists, commuters, and everyday people are having to drive to access areas of Baltimore when there are so many underutilized resources to improve movement throughout the city. Finally, a point to add that even with these updates there needs to be a focus on changing public perspective around public transit in Baltimore. From my experiences, information is hard to find on schedules as well as access points. These create barriers in addition to the safety concerns that people already have as a stigma when visiting Baltimore. You cannot just have those who have no access to vehicles using transit. It needs to be supported by the city and people as a whole to have the continuous funds coming in to support the infrastructure. I feel confident that this initiative will provide at least dialogue around how to improve our city and bring life/tourism back to Baltimore.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. There are several ongoing bus projects to increase bus reliability, speed and passenger safety throughout the core bus system. Potential targeted investments to the roadway that prioritize transit riders include curb-extensions at bus stops, transit signal priority, dedicated bus lanes, queue jumps, and more. Current corridor efforts include the RAISE Transit Priority Project (CMS to Fox Ridge), Garrison Boulevard, and the Belair Rd Gay St corridor.

MTA's Fast Forward Program is investing \$43 million in our core service area by accelerating projects that create a transit system that is more reliable, accessible, and easier to use. Investments include, Bus Stops and Shelters, Wayfinding, Real-Time Information Signs, and dedicated bus lanes. Three pilot dedicated bus lanes were installed on York Road, Harford Avenue, Charles/Light Street to bring quick improvements to riders.

Thank you again for your comment.

COMMENT 15

Melanie: MTA MARC put out a long term vision for expanding regional rail in Maryland, mostly centered on the existing Penn and Camden corridors, all the way back in 2007, but there is nothing in this budget about furthering that plan. Is that because MTA never submitted those plans to the BMC? Because none of those plans ever came to fruition. But expanding regional rail can much better serve the prosperity of Maryland than widening roads.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. MTA has been working on various projects and programs to improve, enhance, and expand the MARC service on all three lines. As MARC does not own the rail right of way or tracks it operates its service on, expansion of the service must be coordinated and approved by host railroads. More recently, MTA is working on extending the service into Virginia and Delaware. Several other critical projects are underway, such as replacement of the old B&P Tunnel, a new MARC West Baltimore Station, redevelopment and restoration of Penn Station and increasing service levels.

Thank you again for your comment.

COMMENT 16

Eric Rockel: I am writing concerning the Long-Range Roadway and Transit Projects, 2028-2050. I am the vice president of an umbrella group of community associations in the Lutherville/Timonium/Cockeysville area, known as the Greater Timonium Community Council. Our residents heard about ... *[continued]*

Transit (*continued*)

[from previous] ... project #44, the North-South Transit Corridor, from the MTA at one of our meetings in the fall of 2022. The members are dead-set against extending a transit line along York Road north of I-695. In the Central Maryland Regional Transit plan completed in 2020, that plan did not show the transit line to Towson being extended north of the Beltway with this North-South project. The feelings against this add-on leg to the North-South corridor was so pervasive that we circulated petitions, both on-line and by paper, that resulted in 3500 persons signing up against this leg north of the Beltway. BMC can expect major opposition if it supports the part north of I-695. We have made the County Executive, John Olszewski, aware on multiple occasions of our opposition, and I would hope that he conveys our feelings to the BMC.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. In 2020, MTA and its regional partners created the Central Maryland Regional Transit Plan, establishing a vision for mobility over the next 25 years. This plan identified Regional Transit Corridors demonstrating demand for major investments in high-quality transit options. The East-West Corridor from Bayview to Ellicott City and the North-South Corridor from Towson to Downtown Baltimore City were identified as early opportunity corridors and are being studied further to identify the best transit modes and alignments that will benefit the communities they connect. The feasibility study was extended to Lutherville to investigate the potential benefits of connecting to the existing Light Rail system. Whether this segment of the corridor is even considered in the next phase of the project, the alternatives analysis phase, remains to be determined. Extensive planning and technical evaluations remain to be conducted along with further opportunities for the public to provide comment on these studies as they advance before a specific mode and alignment is determined as the preferred option to be pursued by MTA and regional partners. Thank you again for your comment.

COMMENT 17

Eric Rockel: On the long range plan, project #44 - the North South Corridor - should not include the leg of transit from Towson to Lutherville. Residents north of I-695 are strongly opposed to extending light rail in the right of way of York Road.

RESPONSE

BRTB: See response above to #16.

COMMENT 18

Spencer B, supported by willy: By improving public transit and bike lanes, we will not need as much parking in Baltimore and can utilize lots for green projects. Making Baltimore greener will greatly improve air quality and provide more outdoor space for communities to utilize.

Transit *(continued)*

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. Baltimore City prioritizes transit and active mobility users in transportation infrastructure projects. The City is committed to increasing the viability of sustainable transportation alternatives by continually growing its network of protected bike facilities and dedicated bus lanes, and generally prioritizing initiatives that reduce dependence on parking and driving. The City is also proactively working to downsize impervious surfaces in places where excess road width is found to contribute to speeding and reckless driving. This typically results in the creation of additional pedestrian, bicycle and green space in the public right-of-way. Thank you again for your comment.

COMMENT 19

Transit Choices (Robin Budish, Director): We hope this message finds you well. Transit Choices would like to make the comments below on the MDOT/ MTP Long-Range Transit Plan as requested by Shane Sarver on behalf of the BMC. We would appreciate your thoughts on what would be the most effective way for us to give feedback.

1. Making Penn Station a rail hub - for this to happen, we need to better link the light rail stop at Mt. Royal with Penn Station. As it is now a person who wants to take the light rail to Penn Station has to get off at the Mt. Royal Station and walk 3.5 blocks to Penn Station with whatever luggage they are carrying. In rain, cold weather, and after dark this walk is unpleasant and even scary. In the original planning for the light rail a trestle was built across Interstate 83 to accommodate light rail trains going directly into Penn Station. Because of the rush to get the light rail completed before Camden Yards opened, this connection was never completed. In reviewing the options now we feel that the best way to make this link would be to run an automated shuttle every 4 minutes between Penn Station and the Mt Royal stop. To bring the light rail into Penn Station directly would add another 5 minutes to an already too slow connection between Hunt Valley and downtown. To further make Penn Station a transportation hub we feel that there needs to be a Marc train stop at Bayview. Coupled with a fare change that would allow short commutes, riders could then use the Marc train to go from the West Baltimore stop to Bayview in East Baltimore, a major employment center. We know options are under discussion to run Marc trains as far as Delaware, or for there to be a Marc train shuttle between BWI and Martin Marrietta. Either of these would create an opportunity for an East-West rail connection in Baltimore. This would not be a replacement for the Red Line but a stop-gap measure that could be built in the interim both relatively inexpensively and in a short-range time frame. Then we would have a true rail hub at Penn Station.

2. Our water transit system in the harbor needs to be expanded both in time and distance. Future water transit should run to the middle Patapsco branch and connect Port Covington (Baltimore Peninsula) and Cherry Hill to the Inner Harbor. The schedule should include weekends as well as weekdays. Ideally the water taxi system and Harbor Connector could be merged into one system with a different fare structure for tourists and commuters. This would enable us to promote the water transit system in a coherent fashion to both residents and commuters alike. Presently, having two separate systems is confusing to riders and makes marketing the systems problematic. Water transit is an important part of Baltimore's overall public transit system. We would also recommend that both support and funding for transit projects not be disproportionately weighted in favor of highway expansion projects.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. MTA has been awarded a \$6 million federal grant from the U.S. Department of Transportation's (USDOT) 2022 Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program and a \$3.6 million federal Earmark designation. The grant will assist the \$12 million Building Baltimore Penn Station Connections project to improve access in and around Baltimore's Penn Station. This collaborative effort will enhance transportation connections for transit riders, motorists, bicyclists and pedestrians and expand access to the local disadvantaged community, more than 20% of which lacks access to a car. MTA is planning to improve the pedestrian connection to Mt Royal Light Rail station as a part of the Penn Station project. This project will complement investments by other public and private partners to modernize and redevelop Baltimore Penn Station. ... *[continued]*

Transit *(continued)*

[from previous] ... MTA is also currently working towards a 30% design milestone for a MARC Bayview station which works to extend rail access to a major medical facility and job center in Baltimore City and creating another transit east-west connection.
Thank you again for your comment.

COMMENT 20

Susan Wierman: I am concerned about the idea of light rail on York Road between Towson and Baltimore. Light rail is not like a local street car. It is designed to provide long distance connections between parking areas and highly concentrated destinations. A light rail on York Road would not serve the people along the route; it would mainly those close to large parking areas. Furthermore, York Road is not wide enough to accommodate both rail and passenger car traffic. A light rail line would limit access via personal vehicle for communities that front on York Road. Fixed rail systems are very expensive and must have substantial demand to provide reasonable cost: benefit ratios. Smaller, more frequent vehicles would provide better service to affected neighborhoods and encourage greater patronage. I don't think a light rail system on York Road is a good investment, and I don't think it would benefit people living along the route.

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. While light rail was a mode considered for the North-South corridor in the feasibility study, there are additional options that are being considered as well. Extensive planning and technical evaluations remain to be conducted along with further opportunities for the public to provide comment on these studies as they advance before a specific mode is determined as the preferred option to be pursued by MTA and regional partners. The next step in this process will be an alternatives analysis, which will consider things like vehicle size/type and operational characteristics, in addition to mode and alignment.
Thank you again for your comment.

COMMENT 21

Will: I noticed that for the RTP corridors project, you get the average cost by taking the average of 7 proposals for each corridor. For each there were 4 Bus, 2 light rail, and 1 heavy rail alternative analyzed. But this results in numbers too high for BRT, but too low for rail projects like the Red Line. How will this affect federal funding?

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The Long-Range Transportation Plan (LRTP) is a living document that is updated every four years. In addition, the LRTP can be amended if the scope of a project changes prior to the adoption of the next LRTP. When MDOT MTA moves forward with a selected alternative for either the East-West or North-South Transit Corridors, the selected scope and estimated cost will either be amended into *Resilience 2050* or included in the next update of the LRTP. Depending on the cost of the selected alternative, this could mean that some projects may need to be removed from the LRTP to ensure that the document remains fiscally constrained.
Thank you again for your comment.

Transit *(continued)*

COMMENT 22

willy: We must focus on electrified railways. Also don't even think about EV buses; waste of valuable resources and literally crush the roads it'll drive on. Just build a light rail or even trolley buses if that's cheaper alternative?

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. The Maryland Greenhouse Gas Reduction Act Reauthorization set a 40 percent reduction target for statewide emissions by 2030 from 2006 levels. MTA subsequently established a goal to convert 50 percent of its Core Bus fleet in Greater Baltimore to zero emission buses (ZEBs) by 2030. This goal was also included in the 2020 Central Maryland Regional Transportation Plan (CMRTP), along with a longer-term goal to convert 95 percent of the Core Bus fleet to zero-emission buses by 2045. The passage of Senate Bill 137 in 2021 and of Senate Bill 67 in 2022 prohibited MTA from entering into new procurements for non-ZEBs (ie, diesel buses) beginning in fiscal year 2023. Through the Red Line project and the RTP North-South Corridor study, MTA is also investigating potential new Light Rail or Bus Rapid Transit alignments to expand the MTA premium transit network. Thank you again for your comment.

COMMENT 23

Willy Wong: Don't feel any transit in Baltimore County connect to places people want to go

RESPONSE

BRTB: Thank you for your comment and for participating in the planning process for *Resilience 2050*. Both MDOT MTA and Baltimore County provide transit and are planning additional transit in the county. It would be helpful to know what destinations you believe should be connected. Thank you again for your comment.



BRTB Resolution on Approval of Resilience 2050

BALTIMORE METROPOLITAN PLANNING ORGANIZATION

BALTIMORE REGIONAL TRANSPORTATION BOARD RESOLUTION #24-1

APPROVAL OF RESILIENCE 2050: ADAPTING TO THE CHALLENGES OF TOMORROW (RESILIENCE 2050), 2024 – 2027 TRANSPORTATION IMPROVEMENT PROGRAM (TIP) AND THE ASSOCIATED CONFORMITY DETERMINATION OF RESILIENCE 2050 AND TIP

WHEREAS, the Baltimore Regional Transportation Board is the designated Metropolitan Planning Organization for the Baltimore region, encompassing the Baltimore Urbanized Area, and includes official representatives of the cities of Annapolis and Baltimore, the counties of Anne Arundel, Baltimore, Carroll, Harford, Howard, and Queen Anne's as well as representatives of the Maryland Department of Transportation, the Maryland Department of the Environment, the Maryland Department of Planning, the Maryland Transit Administration, and Annapolis Transit; and

WHEREAS, the Baltimore Regional Transportation Board, as the Metropolitan Planning Organization for the Baltimore region, is required under the Infrastructure and Investment Jobs Act (IIJA) to complete a long-range transportation plan and transportation improvement program at least every four years for the Baltimore region; and

WHEREAS, the Baltimore Regional Transportation Board has coordinated with Baltimore Metropolitan Council staff to ensure its compliance with IIJA requirements and documented in the Metropolitan Transportation Planning regulations (May 27, 2016 *Federal Register*); and

WHEREAS, development of the long-range transportation plan results from a continuous, cooperative and comprehensive planning process and considers and integrates as appropriate the federal planning factors documented in the Metropolitan Transportation Planning regulations; and

WHEREAS, the FY 2024-2027 Baltimore Region Transportation Improvement Program is a prioritized program of transportation projects which are financially constrained by year and includes a financial plan that demonstrates that projects can be implemented using available revenue sources; and

WHEREAS, the Baltimore Regional Transportation Board, in accordance with IIJA, developed a list of highway and transit projects, as well as a set-aside for transportation system management and operations, complete streets – bicycle and pedestrian, and transportation emission reduction measures for the Baltimore region, referred to as the Preferred Alternative; and

WHEREAS, the Baltimore Regional Transportation Board, as the Metropolitan Planning Organization for the Baltimore region, is required under Clean Air Act Amendments of 1990 and the U.S. Environmental Protection Agency's Transportation Conformity Rule to conduct analyses to ensure that the region's transportation plans and programs conform with the State Implementation Plan (SIP); and

WHEREAS, the conformity analysis as reported in the "Conformity Determination of Resilience 2050 and the 2024 – 2027 Transportation Improvement Program," dated May 2023, provides the basis for a finding of conformity to 8-hour ozone National Ambient Air Quality Standards (NAAQS) SIP for the Baltimore region, which includes meeting the 2012 Reasonable Further Progress motor vehicle emission budgets as determined adequate by U.S. EPA. This addresses three ozone NAAQS: 1997, 2008 and 2015. (Attachment 1: Tables 1 and 2); and

WHEREAS, opportunities for public comment were provided – including a 35-day public comment period, seven public meetings (one held in each jurisdiction), a virtual public meeting, and regularly scheduled meetings of the Baltimore Regional Transportation Board, Interagency Consultation Group and Technical Committee – with respect to the Draft *Resilience 2050, 2024 – 2027 TIP* - and the methodology and results of the conformity analysis – and these comments were duly considered by the Metropolitan Planning Organization in this deliberation process; and

WHEREAS, a range of outreach strategies was employed to share information about *Resilience 2050*, the 2024 – 2027 TIP and the Conformity Determination supported by opportunities for public comment, including seven public meetings, one virtual meeting, and informational on-demand multimedia presentations. A 35-day review was offered and numerous public comments were considered by the BRTB.

NOW, THEREFORE, BE IT RESOLVED that the Baltimore Regional Transportation Board approves *Resilience 2050: Adapting to the Challenges of Tomorrow (Resilience 2050)*, the 2024 – 2027 Transportation Improvement Program (TIP) and the associated Conformity Determination of Resilience 2050 and the TIP.

I HEREBY CERTIFY that the Baltimore Regional Transportation Board, as the Metropolitan Planning Organization for the Baltimore region, approved the aforementioned resolution at its July 25, 2023 meeting.

7-25-23

Date



D'Andrea Walker, Chair
Baltimore Regional Transportation Board

Attachment 1

Table 1. VOC Emissions Test Results (average summer weekday, tons/day)

	2023	2025	2035	2045	2050
Total Emissions	16.986	15.232	10.047	9.261	9.259
Conformity Budget ¹	40.2	40.2	40.2	40.2	40.2
Conformity Result	PASS	PASS	PASS	PASS	PASS

¹ 2012, 8-hour ozone Reasonable Further Progress (RFP) SIP budget for the Baltimore region (motor vehicle emission budgets determined adequate by EPA on February 22, 2016)

Table 2. Weekday NOx Emissions Test Results (average summer weekday, tons/day)

	2023	2025	2035	2045	2050
Total Emissions	30.551	25.433	17.586	17.514	18.132
Conformity Budget ¹	93.5	93.5	93.5	93.5	93.5
Conformity Result	PASS	PASS	PASS	PASS	PASS

¹ 2012, 8-hour ozone Reasonable Further Progress (RFP) SIP budget for the Baltimore region (motor vehicle emission budgets determined adequate by EPA on February 22, 2016)