



**Executive Committee**

**Information Item III-B**

**November 18, 2021**

**Bus Transformation  
Project Update**

Washington Metropolitan Area Transit Authority

## Board Action/Information Summary

☐ Action ☒ Information

MEAD Number:  
202320

Resolution:  
☐ Yes ☒ No

### TITLE:

Metrobus: Bus Transformation Project Update

### PRESENTATION SUMMARY:

Information item to share progress to date on the Bus Transformation Project (BTP) recommendations.

### PURPOSE:

Staff will provide an update on Metro and the region's progress on the strategy recommendations outlined in the Bus Transformation Project, including the recommendations identified as priority items by the Board.

### DESCRIPTION:

With the Board's Bus Transformation Project endorsement in January 2020 (Resolution 2020-01), Metro and the region have been advancing many of the recommendations. This presentation will provide an update on progress to date.

Contractors and [Interested Parties](#) Involved in the BTP Work and subsequent projects: **AECOM, Boston Consulting Group (BCG), Foursquare Integrated Transportation Planning, NeoNiche Strategies, WSP, IBI Group, Parsons, and Kittelson.**

### Key Highlights:

- Metro and the jurisdictions are partnering to improve bus service for riders and for the region.
- In September 2021, Metro implemented more frequent, all day service at 12- to 20-minute headways or better on 36 of the most-used buses.
- The jurisdictions have also partnered with Metro to coordinate implementation of Bus Priority that will improve the speed and reliability for buses. Virginia, the District, and Maryland are all implementing dedicated bus lanes, and working with Metro to implement transit signal priority, queue jumps, and violation detection and enforcement policies.
- Three Board priorities – the Metrobus Service Guidelines, Free Transfers Between Bus and Rail, and Mobile Payment – have been implemented.

- Two additional recommendations – a funded bus priority capital program team and improved bus cleaning standards – have also been implemented.

## **Background and History:**

In September 2018, Metro, its partner jurisdictions, and local transit agencies launched the Bus Transformation Project with the goal to create a collaborative action plan for the future of bus in the region. Extensive engagement with the general public, project stakeholders, local jurisdictions, regional transportation boards, and the WMATA Board formed the basis for the recommendations by the Executive Steering Committee. The Bus Transformation Strategy was released on September 5, 2019 and an Action Plan followed in December 2019. In January 2020, the WMATA Board endorsed the plan and identified 10 recommendations for early action. The full strategy and Action Plan, along with other project documents can be found at [www.bustransformationproject.com](http://www.bustransformationproject.com).

The Covid-19 pandemic has brought the importance of the region's bus system into sharper focus. The Bus Transformation Project's recommendations aim to transform the regional bus system into a fast, frequent, reliable, and affordable system that feels unified.

## **Discussion:**

Buses are a major part of the region's transportation network. Bus service provided by nine operators, including Metrobus, has carried more riders than Metrorail since the start of the pandemic. However, opportunities exist to improve this service, as conveyed through surveys of existing and potential customers. Consistently, bus riders across the region have asked for more frequent, reliable, and faster service, and more affordable fares.

Based on feedback received from bus riders, the Bus Transformation Project identified four strategies for the region to achieve these objectives:

1. **Frequent and Convenient Bus Service:** Provide frequent and convenient bus service that connects communities and promotes housing affordability, regional equity, and economic growth;
2. **Bus Priority on Roadways:** Give buses priority on roadways to move people quickly and reliably;
3. **Customer Experience:** Create an excellent customer experience to retain and increase ridership; and
4. **Task Force to Implement the Strategy:** Empower a publicly appointed Task Force to transform bus and lead the implementation of a truly integrated regional system

Metro and the region have made progress towards implementing these strategies, particularly recommendations within Strategies 1, 2 and 3. Three Board priorities – the Metrobus Service Guidelines, Free Transfers Between

Bus and Rail, and Mobile Payment – have been implemented. Two additional recommendations – a funded capital program team and improved bus cleaning standards – have been implemented.

Metro and the jurisdictions are partnering to improve bus service for riders and the region. In September 2021, Metro implemented more frequent, all day service at 12- to 20-minute headways or better on 36 of the most-used buses. The jurisdictions have also partnered with Metro to coordinate implementation of Bus Priority that will improve the speed and reliability for buses. Virginia, the District, and Maryland are all implementing dedicated bus lanes, and working with Metro to implement transit signal priority, queue jumps, and violation detection and enforcement policies.

In addition, work is advancing on other Board priorities from the Bus Transformation Project, including:

- New vehicle technologies to improve bus' environmental footprint and efficiency: Metro established and launched a Zero Emission Vehicles program and the Board adopted goal to transition all new bus purchases to zero-emission by 2030 and a fully zero emission fleet by 2045.
- Bus Network Redesign: Staff has coordinated with all the local jurisdictions to develop the scope to restructure to region's bus network to create a customer-focused system that improves access to destinations, increases ridership, and makes efficient and equitable use of resources.
- Revised Metrobus Service Definitions and Funding Allocation Formula: This will be included in the Network Redesign effort.
- Legible maps and customer-friendly route names: A high-frequency bus map showing connections and opportunities for transfers to Metrorail was created for the Metrobus Frequent Service Network in September 2021. Long-term, a digital wayfinding strategy with integrated bus-rail maps are planned for the system.
- Regional passes across all providers: The Board approved including regional providers in Metro's combination rail-bus passes; staff is working with regional providers on an updated revenue sharing agreement to enable full implementation for riders.
- Reduced fare options for low-income riders: low-income fare pilot in the District was postponed due to the pandemic and will now resume.

In the coming months, Metro will continue to advance equitable and sustainable Metrobus services, work on the redesign of the bus network, and expand opportunities to expand the bus priority footprint in the region with partnerships for enforced bus lanes, transit signal priority, queue jumps, and all-door boarding. The continued support and advocacy of our regional partners has been integral to successfully implementing the recommendations of the Bus Transformation Project until now, and will go a long way to help accelerate the implementation of the remaining recommendations in the future.

**FUNDING IMPACT:**

There is no funding impact from presenting this update.

**TIMELINE:**

<b>Previous Actions</b>	Sept. 2020 – Framework for Transit Equity - Metrobus Dec. 2020 – Bus Service Guidelines Adopted
<b>Anticipated actions after presentation</b>	Annual Progress Updates.

**RECOMMENDATION:**

# Metrobus Transformation Progress Update

Executive Committee  
November 18, 2021





# Purpose and Background

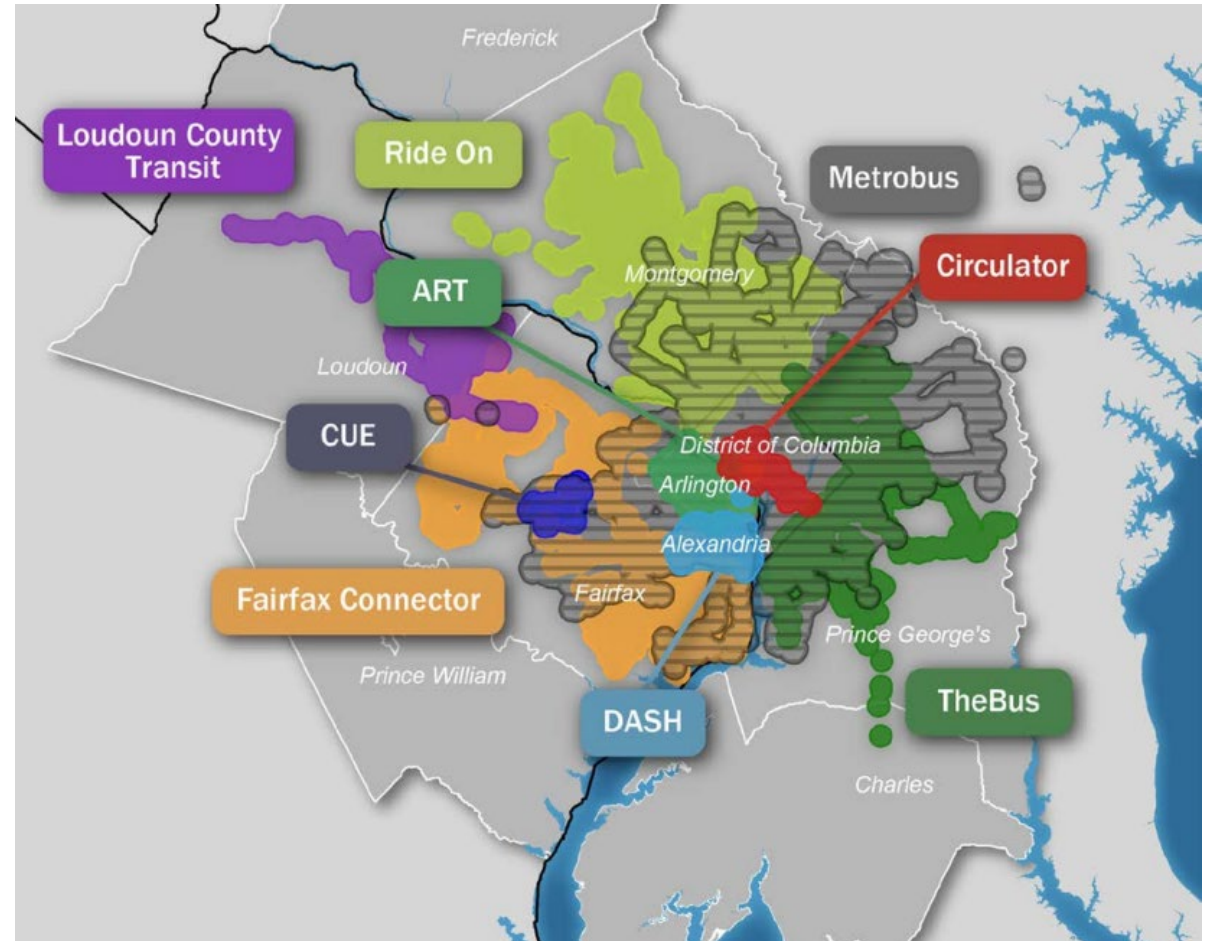
Review Bus Transformation Project (BTP) progress

- Designed to transform the bus system to provide fast, frequent, reliable, affordable service that feels unified and advances transit equity
- More than a year of public and stakeholder input developed four strategies and 26 recommendations to improve bus



# Buses Move the Region

- A major part of the Washington area's transportation system, connecting residents to destinations
  - Provided by nine operators, including Metrobus
  - Since start of the pandemic, Metrobus has carried more riders than Metrorail
- Needs improvement to meet needs of region, especially riders who rely on it most

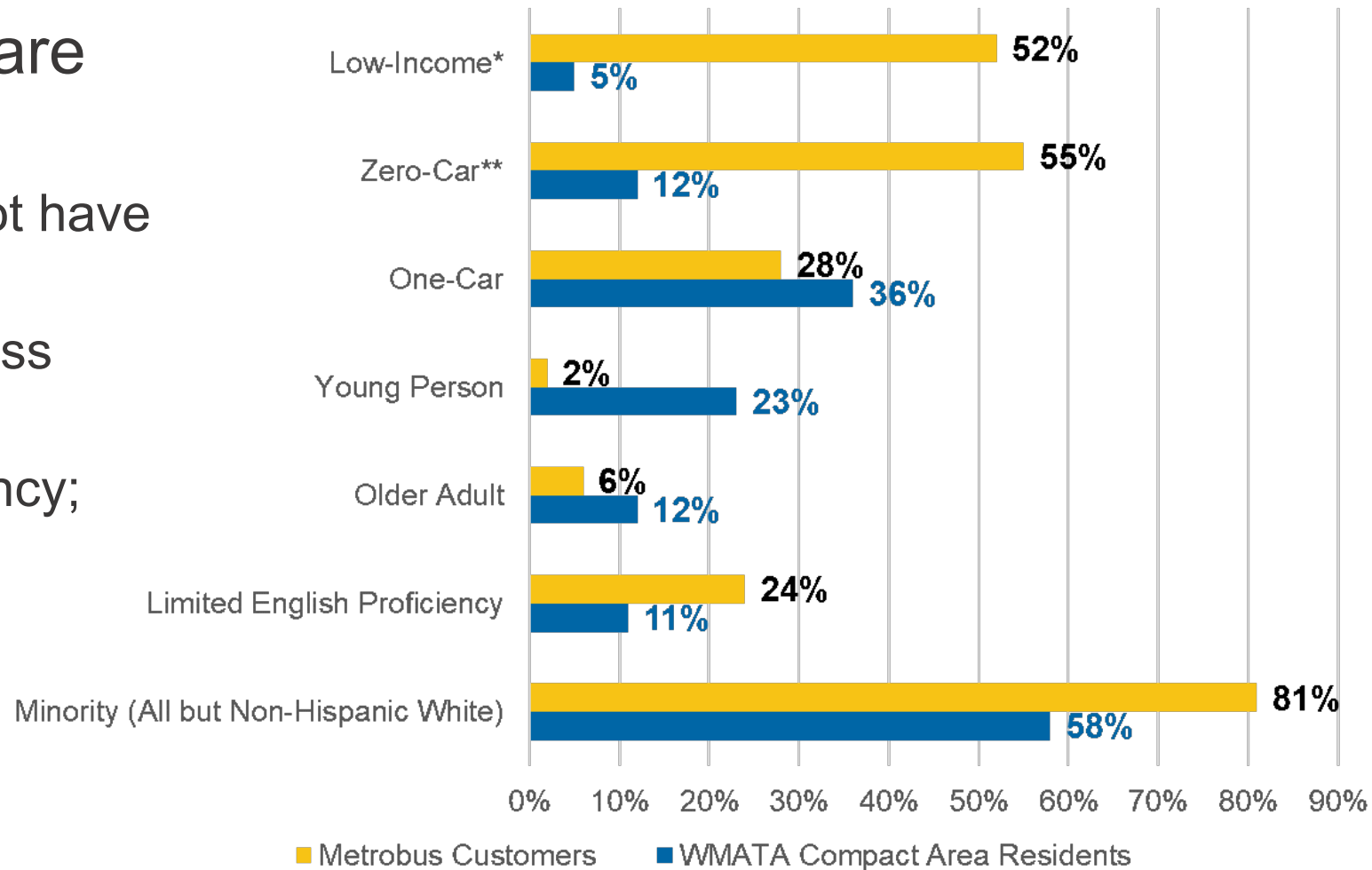




# Bus Rider Demographics

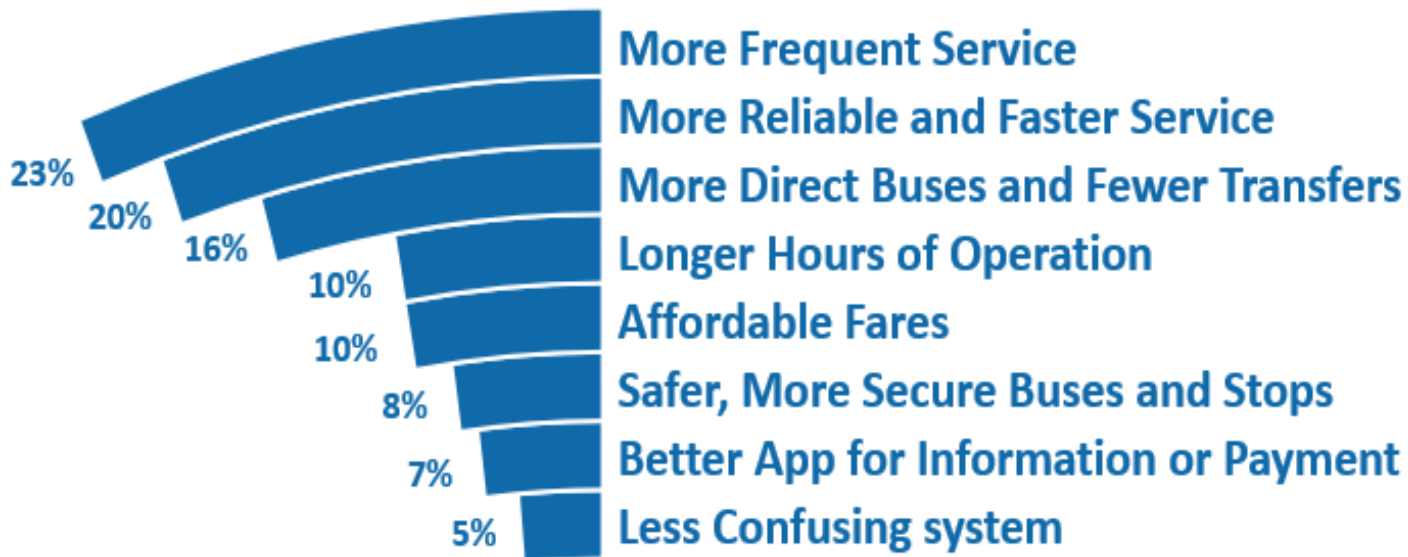
Bus riders in the region are more likely to:

- Live in households that do not have a car;
- Live in households making less than \$30,000 annually;
- Have limited English proficiency; and
- Be persons of color



# Current and Potential Customers' Priorities

## Survey Example: Bus Customer Priorities



Respondents were asked to prioritize improvements to local bus service by apportioning “coins” from a hypothetical budget of 20 coins to eight different categories of improvement types based on their preferences.

Run more buses!

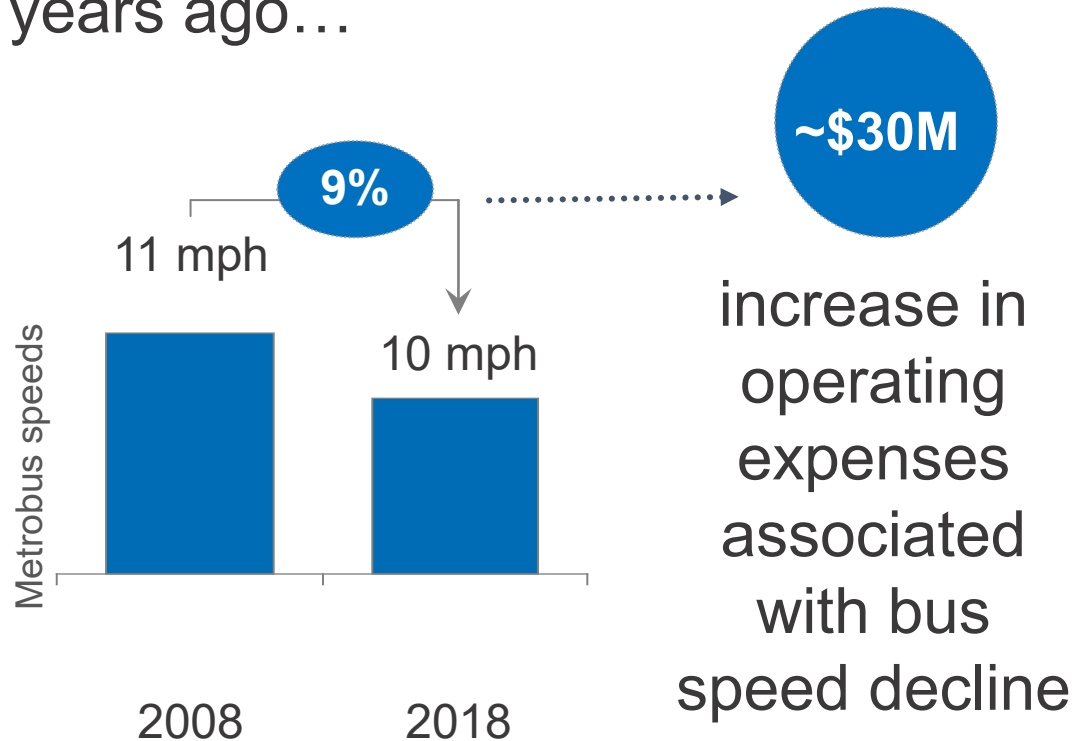
...ridership here would increase exponentially if buses were frequent and preferably in dedicated lanes

Frequent service that is available 7 days a week is critical to building a useful transit network that people can rely on for all their needs

Metro buses come fairly frequently (every 10-15 minutes) which is very convenient because then I can leave work whenever I want and always know a bus will be there soon

# Buses face on-route challenges

Pre-Covid, buses got slower than 10 years ago...



...as a result of multiple changes to the landscape

- Increased **congestion**
- On-street **parking**
- Proliferation of **bus stops**
- **Curbside** developments
- Lack of **enforcement** for deliveries, taxis, etc. in bus lanes and at stops
- Elimination of historical **bus lanes**

Source: National Transit Database, WMATA FY19 budget. BCG Analysis

# Broad Stakeholder Engagement



More than a year of public and stakeholder input including:

- 8,800+ public survey responses
- 23 Executive Steering Committee meetings\*
- 16 Technical Team meetings\*
- 8 Strategy Advisory Panel meetings\*
- 14 WMATA Leadership Team meetings\*
- 13 Metrobus operator listening sessions
- 45 External project briefings
- 33 Pop-up events
- 3 Public Open House events
- 4 Focus Groups
- 140 participants in September 2018 Kickoff Summit
- 285 Social media posting
- 312,000 people reached via social media

# Bus Transformation Project | Strategies



1

## Frequent and Convenient Bus Service

Provide frequent and convenient bus service that connects communities and promotes housing affordability, regional equity, and economic growth



2

## Bus Priority on Roadways

Give buses priority on roadways to move people quickly and reliably



3

## Customer Experience

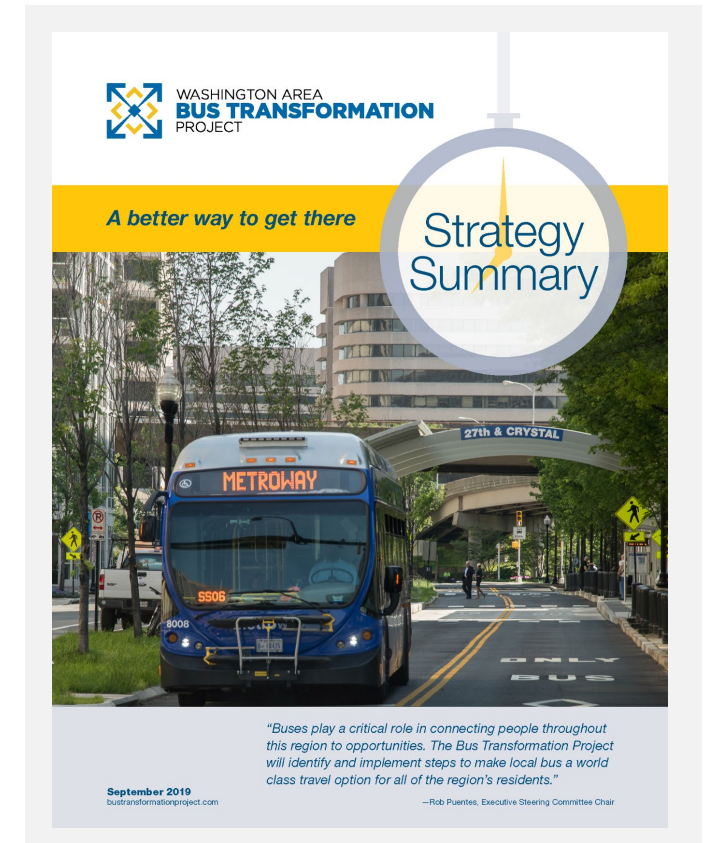
Create an excellent customer experience to retain and increase ridership



4

## Task Force to Implement the Strategy

Empower a publicly appointed Task Force to transform bus and lead the implementation of a truly integrated regional system



# 1. Frequent and Convenient Bus Service

Progress since the Board's endorsement in January 2020

<b>A</b>	<b>Regional standards across bus systems</b>	✓ <b>Metrobus Service Guidelines adopted December 2020</b>
<b>B</b>	Standardized bus operations and performance data	Annual Line Performance Report published December 2020
<b>C</b>	<b>Bus Network Redesign</b>	<b>Scope developed in partnership with jurisdictions and redesign effort initiated</b>
<b>D</b>	<b>Revised Metrobus service definitions and funding allocation formula</b>	<b>Included in Network Redesign (Initiative C)</b>
<b>E</b>	Flexible on-demand services	Study underway

*Note:* Board priority recommendations are in **bold**



## Service Guidelines | Adopted in December 2020

**1 Bus Rapid Transit** high frequency routes that have dedicated right-of-way or other traffic control measures



**2 Framework Routes** are the backbone of bus service, serving various purposes for riders



**3 Coverage Routes** often connect riders to more frequent service



**4 Commuter Routes** provide peak period only trips during periods when commuters would use the services



**1 Service Classifications** group routes by the **purpose** they serve

**2 Service Tiers** group routes by the **density** in which they operate in

**A | densely populated** corridors such as 16<sup>th</sup> Street in the District

**B | moderate density** areas such as Arlington Blvd. in Fairfax County

**C | lower density** residential areas such as Bowie or Burke

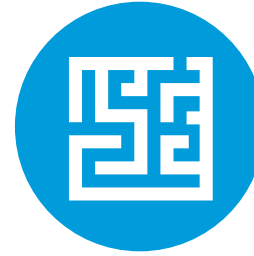
# Bus Network Redesign | Goals and Outcomes



**Increase access to frequent service**



**Grow ridership and mode share**



**Simplify bus network for existing and future customers**



**Leverage Service Guidelines for regional cohesion**



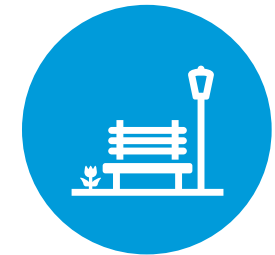
**Align with changes in land use and demographics**



**Harmonize payment systems and fare structure**




**Promote equity, access to opportunity, and an inclusive region**



**Coordinate service investments with bus priority infrastructure**

## 2. Bus Priority on Roadways

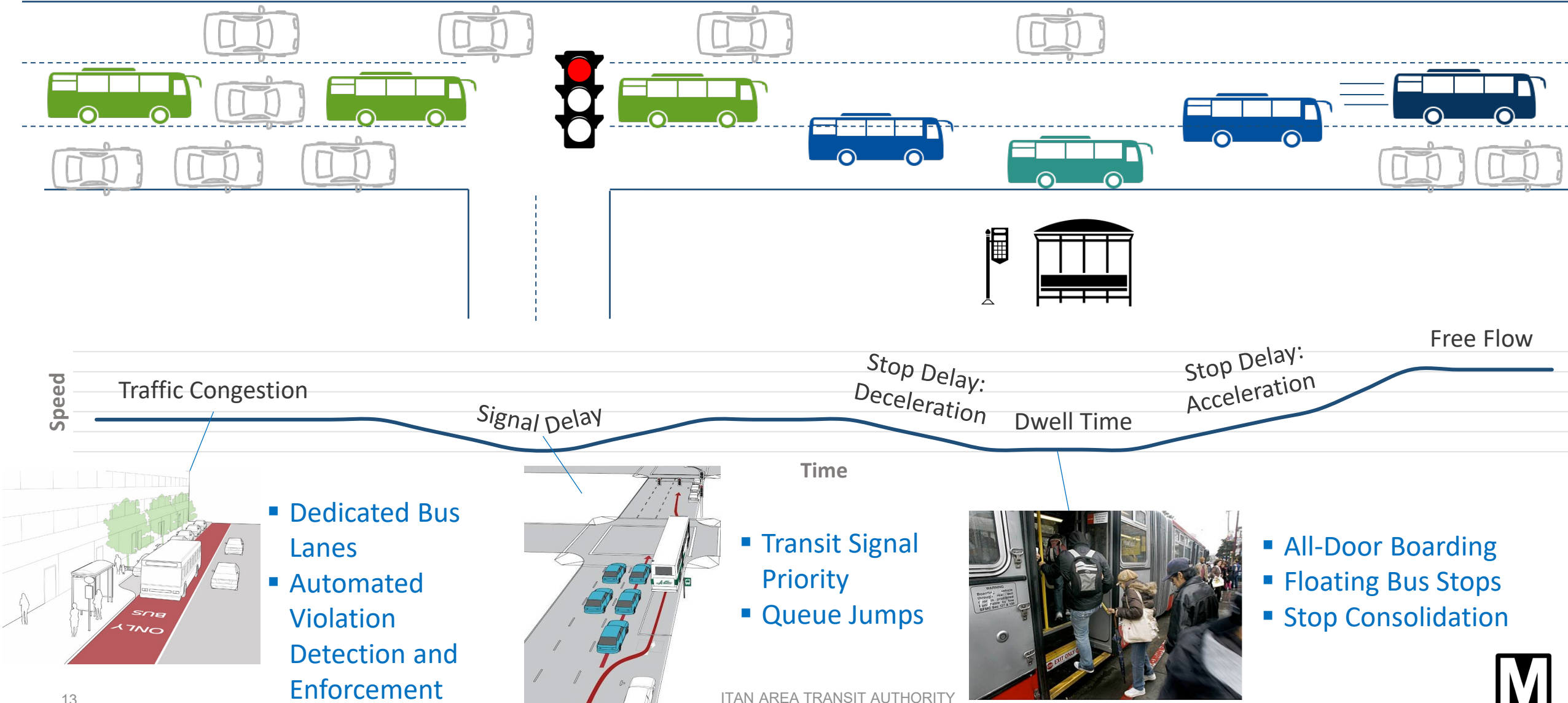
Progress since the Board's endorsement in January 2020

<b>F</b>	Commitments from state and local agencies to expedite coordinated implementation of bus priority	<b>DDOT - bus lanes, TSP, Queue Jumps, and Violation Detection; Montgomery and Prince George's Counties - Queue Jumps; Northern Virginia - TSP</b>
<b>G</b>	Enforcement policies that establish bus priority	Project underway to launch a bus-mounted, fully-automated Bus Priority Violation Detection System (VDS) in coordination with jurisdictions
<b>H</b>	Capital program at Metro for bus priority projects	 Bus Priority team and programmed CIP
<b>I</b>	Regional congestion mitigation efforts	WMATA prepared to support regional efforts

*Note:* Board priority recommendations are in **bold**



## Bus Priority Treatments to Improve Speed and Reliability





# Bus Priority Progress in Region



Bus Lanes in DC



Bus Lanes in Silver Spring, MD



A Bus Priority Queue Jump Signal in DC



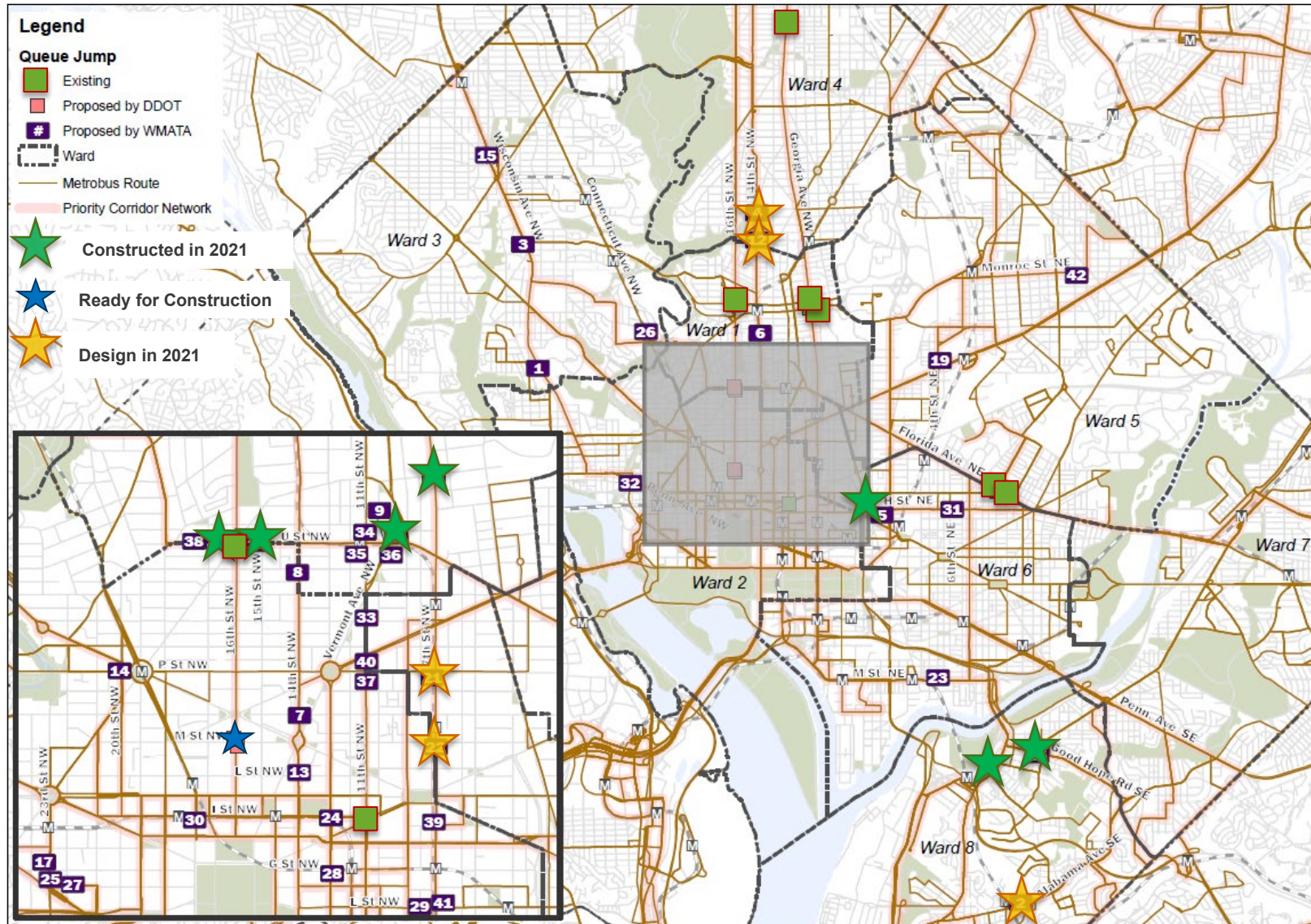
Metroway in Alexandria and Arlington, VA



Montgomery County's Flash BRT Service



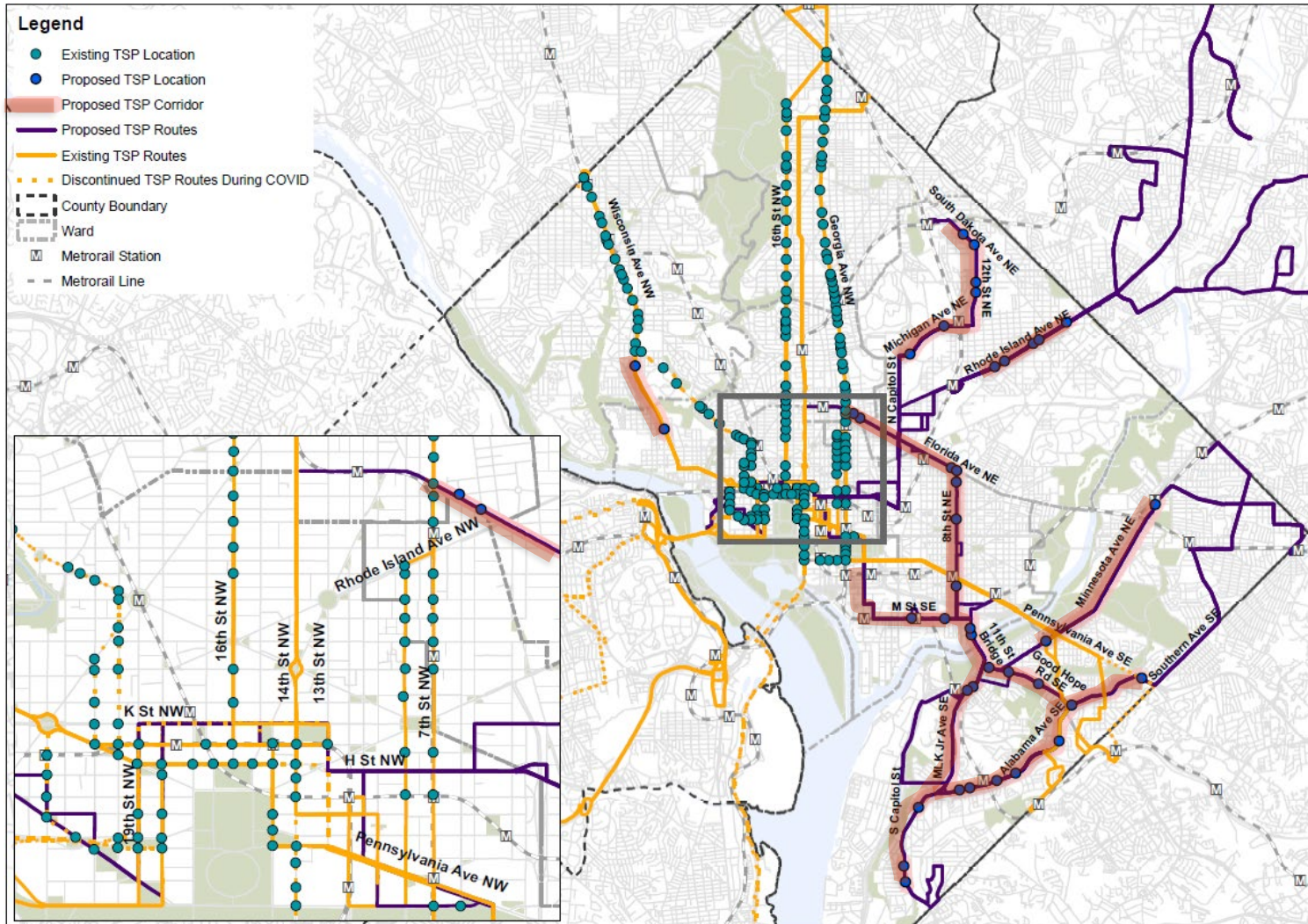
# Queue Jumps | New Locations in DC in 2020 and 2021



- Rapid growth in the number of QJs in the District through WMATA-DDOT partnership
  - 8 QJs in 2020
  - 7 QJs constructed in 2021
  - 6 QJs in design phase
- QJs in the District reduced delays up to 12 seconds per intersection
- Industry average is 5-10 seconds per intersection
- Future:
  - DC - add additional QJs
  - MD – WMATA will partner and design QJs in FY2022



## New TSP Corridors | Improve Performance and Equity



- Existing corridors: downtown and NW DC
- New corridors: SE and NE DC
- City of Alexandria: next highest number of TSP intersections
  - Future: Duke Street corridor (spring/summer 2022)
- Coordinating technology and on-street opportunities with Montgomery and Prince George's Counties

### 3. Customer Experience | High-quality information

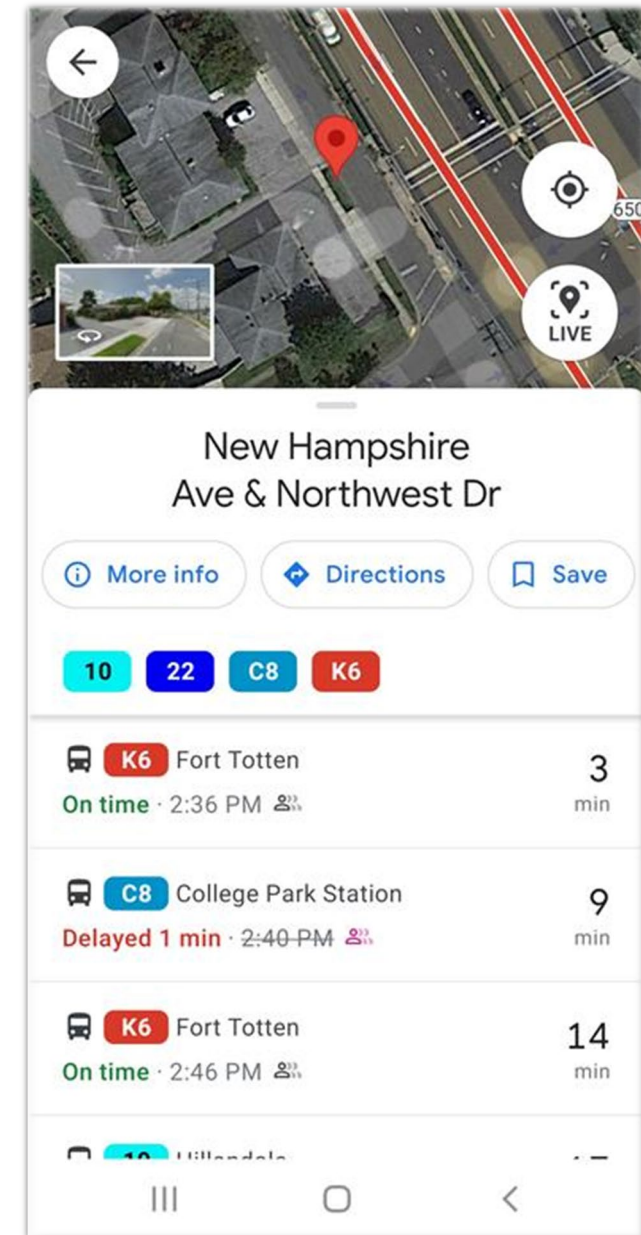
Progress since the Board's endorsement in January 2020

J	Accurate, real-time service information	December 2020 - Realtime crowding on Bus and Rail Future – Additional real time information for Bus customers
K	<b>Legible maps and customer-friendly route names</b>	<b>September 2021 - All Day Frequent Bus Service Map</b> <b>Future – Digital wayfinding strategy with integrated bus-rail maps</b>
L	Marketing efforts to enhance visibility of bus and benefits	Ongoing – on social media

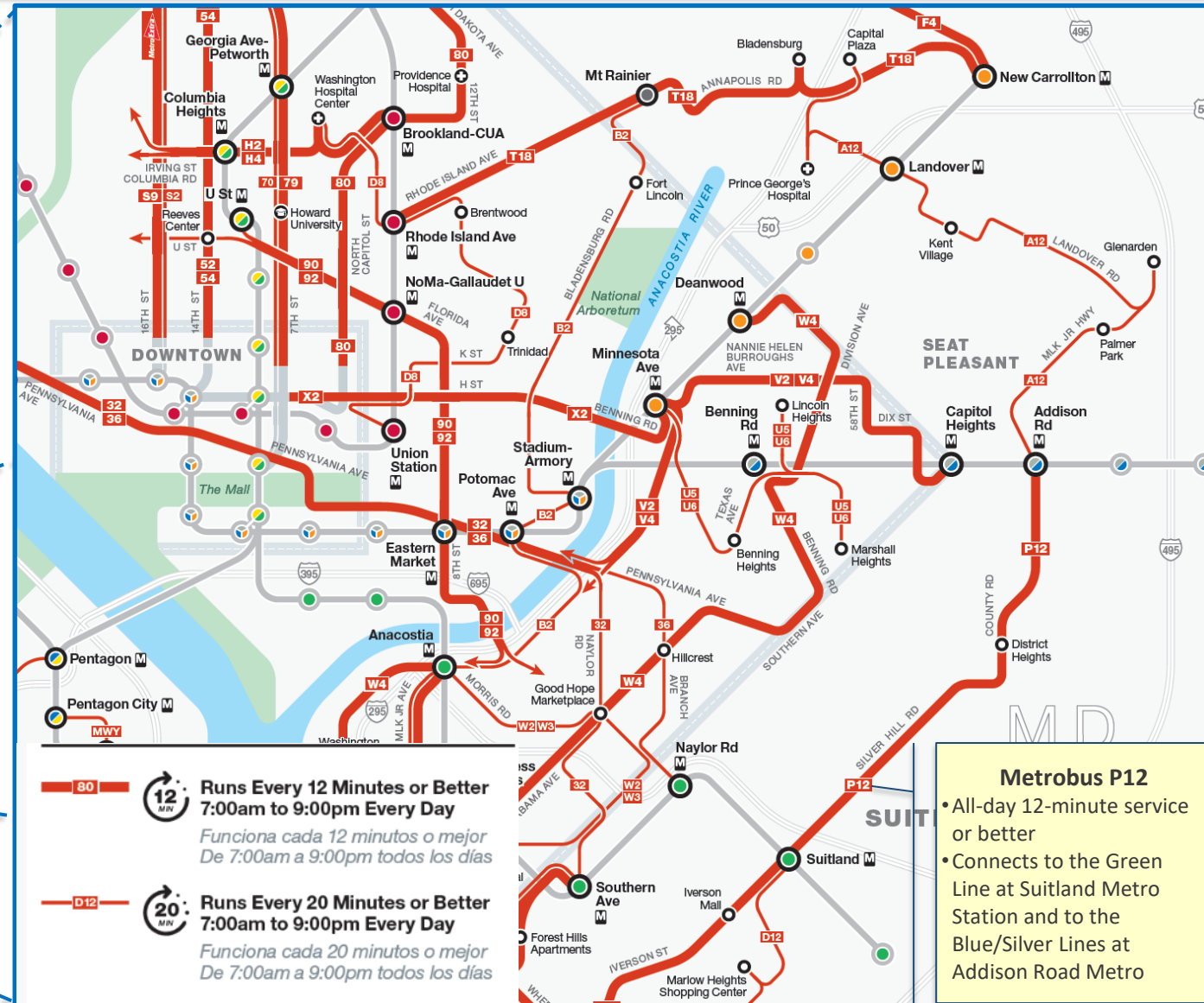
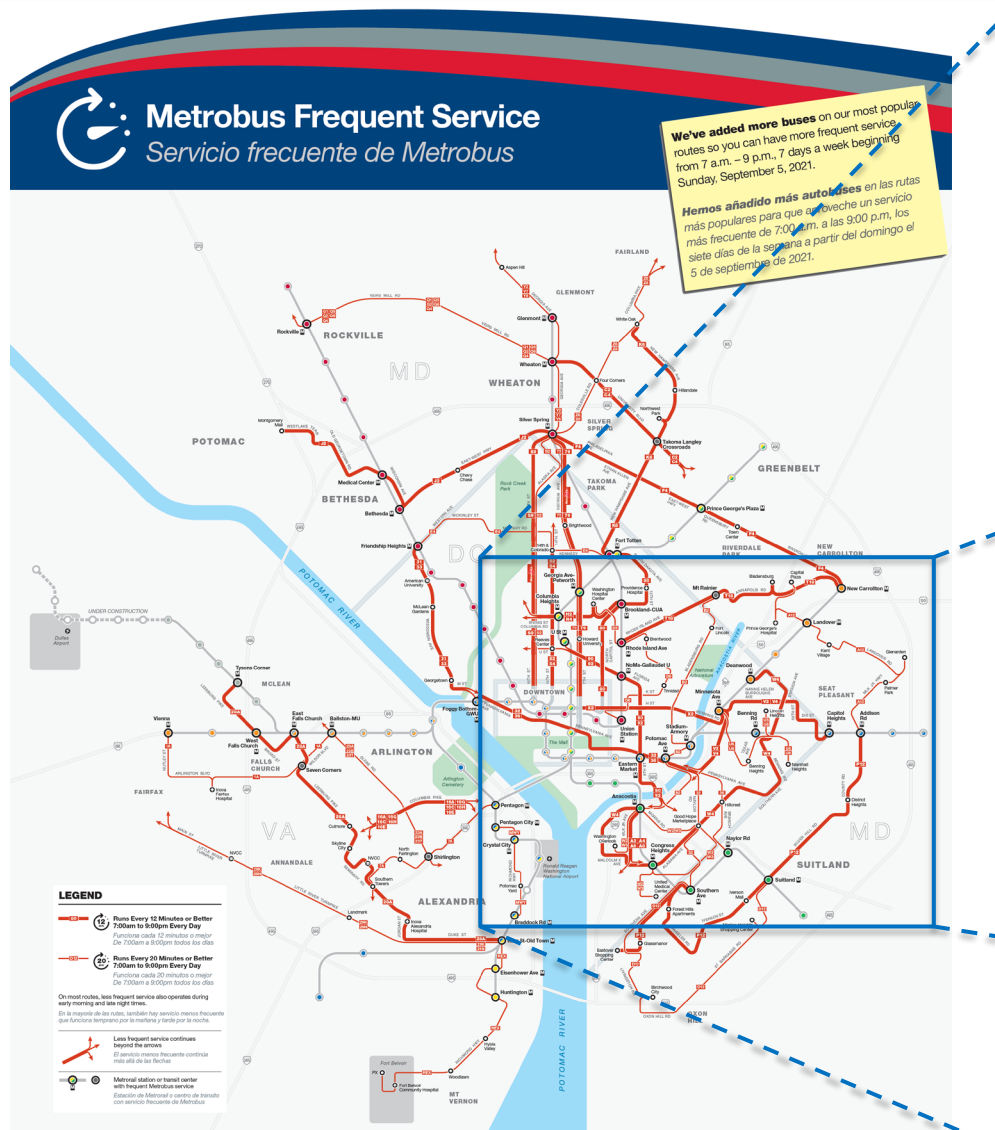
*Note:* Board priority recommendations are in **bold**



## Realtime Service Information



# Legible, Customer-friendly Maps



schematic map  
not to scale

mapa esquemático  
fuera de escala

[wmata.com/changes](http://wmata.com/changes)

metro

### 3. Customer Experience | Easier Bus Fare Payments

Progress since the Board's endorsement in January 2020

<b>M</b>	Free Transfers between bus and rail	✓ Implemented in September 2021*
<b>N</b>	Reduced fare options for low-income riders	Pilot resuming
<b>O</b>	Mobile solution to plan trips and pay in one place	✓ Mobile Payment Implemented
<b>P</b>	New regional passes across all providers	Board approved revised combo passes; coordination with regional providers underway
<b>Q</b>	Incentivize more employers to offer transit benefits	SmartBenefits ad campaign to be launched as ridership returns

*Note:* Board priority recommendations are in **bold**

\*Approved for six-months, pending Title VI evaluation; continuation included in proposed FY2023 budget

## 3. Customer Experience | Safer and More Pleasant Rides

Progress since the Board's endorsement in January 2020

<b>R</b>	Improved bus stops and shelters	In progress – bus shelters in bus loops will be replaced with modern shelters
<b>S</b>	Technology and programs to improve safety	In progress - Replacement of CCTV video systems; procurement of a collision avoidance
<b>T</b>	Exceptional customer service from frontline staff	Regular meetings at WMATA to review customer complaints and improve customer service
<b>U</b>	Highest standards of comfort and cleanliness	Implemented – Covid-19 daily bus cleaning and sanitation SOPs

*Note:* Board priority recommendations are in **bold**



## Modernizing Bus Shelters





- Existing shelters: 30+ years old and rusting
- New shelters will include
  - Structural steel
  - Solar panels and Lighting
  - Digital Bus Information Screens



## 3. Customer Experience | Innovation to improve bus

Progress since the Board's endorsement in January 2020

	New vehicle technologies to improve bus' environmental footprint and efficiency	<b>Launched - Zero-Emission Vehicles program</b> <b>Adopted – Board goal of Zero-Emission bus fleet by 2045</b>
	Regional Mobility Innovation Lab to share knowledge and accelerate improvements	Monthly - Regional Fare Coordination Meeting Bi-Monthly - Regional Bus Priority Meeting Annual - Bus Ridership Workshop

*Note:* Board priority recommendations are in **bold**

## 4. Coordination Improves Implementation

Progress since the Board's endorsement in January 2020

X	Task Force to provide long-term leadership for the region's bus systems	Re-Launch Winter 2022 as a Quarterly Regional Leadership Meeting for Bus System Providers
Y	An independently-published annual progress report on BTP Strategy implementation and a bus performance scorecard to track the level of service delivered to customers	In progress
Z	A platform for rider feedback for incorporating feedback into revisions of the BTP recommendations	Metro Ridership and Recovery Survey completed in summer 2021

*Note:* Board priority recommendations are in **bold**

# Next Steps

- Redesign Bus Network
  - Deliver fast, frequent, reliable, affordable service that feels unified and advances transit equity
- Expand bus priority initiatives in partnership with local DOTs
  - Enforced dedicated bus lanes
  - Transit Signal Priority
  - Queue Jumps
  - All Door Boarding