Transit

How the City supports improvements to bus, paratransit, and rail services by working to enhance transit options and access.

Introduction

A robust public transportation system is a key ingredient to a successful community mobility strategy. The 2020 *Alexandria Transit Vision Plan* has provided a road map to achieve a future frequent, all-day bus network in Alexandria. This chapter will outline transit-supportive policies and strategies that will help the City achieve the 2030 vision of making bus service more convenient, customer-friendly, reliable, and efficient and will build upon the three transitway corridors established in the *2008 Transportation Master Plan*.

This chapter also considers Metrorail, intercity and commuter rail, and paratransit (transportation for persons who are unable to use traditional bus and rail service) to strengthen critical links between Alexandria and the region.

" This [2030 proposed] network provides frequent, all-day transit service to 83 percent of people and 81 percent of jobs in Alexandria.

– Alexandria Transit Vision Plan "

Key Context

12

DASH bus routes, including the King Street Trolley

28

Metrobus routes[1]

700+

bus stops

4

Metrorail stations*

*Alexandria's fifth Metrorail station, Potomac Yard, is expected to open in 2022.

12,800

average weekday DASH passengers in 2019[2]

10,100

average weekday Metrobus passengers in 2018[2]

28%

of Alexandria households use public transit at least once a week[3]

This is less than in Washington, DC, and Arlington but above average for the region.

29%

of low-income residents

and 22%

of minority residents are within walking distance of frequent, all-day transit

89% of low-income residents and **87%** of minority residents will have access to frequent, all-day transit service with full implementation of the Transit Vision Plan.[4]

1, 2.   FY2026 DASH Transit Development Plan.
3.   2017-2018 Regional Travel Survey, National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments.
4.   Alexandria Transit Vision Plan.

17%

of the Alexandria workforce is employed in sectors such as healthcare, food services, and hospitality[5]

Limited midday, evening, and weekend DASH service means that many workers with non-traditional work hours or who are dependent on transit for other needs must find other options.

6

transit signal priority (TSP) corridors

King Street, Duke Street, Richmond Highway, Seminary Road, Van Dorn Street, and Beauregard Street.[6]

3

High-capacity transitway corridors identified in the 2008 Transportation Master Plan

Route 1 Metroway with bus rapid transit-style service between Alexandria, Arlington, and the new Potomac Yard Metrorail station; West End Transitway; and Duke Street Transitway.

5.   U.S. Census Bureau Longitudinal Employer-Household Dynamics (LEHD) 2018. Non-traditional work shift figures include "Accomodation and Food Services" and "Healthcare and Social Assistance" categories.
6.   *Transit Vehicle Signal Priority & Emergency Vehicle Preemption*, City of Alexandria, https://www.alexandriava. gov/tes/info/default.aspx?id=116073.

Planned developments such as Inova's new hospital at Landmark and ambulatory care center at Oakville Triangle will bring an influx of off-hour employees and visitors that would benefit from an expansion of frequent, all-day transit service.

Existing Programs, Policies, and Initiatives

DASH Bus System

The Alexandria Transit Company (DASH) operates bus service on 11 routes and the King Street Trolley. DASH's service area covers approximately 15 square miles and generally aligns with the jurisdictional boundaries of the City of Alexandria, with select routes providing service along I-395 to the Pentagon during weekday peak hours. The system's design follows a modified hub-and-spoke network design model with Old Town as the "hub," and the major east-west arterials (King Street, Seminary Road, Duke Street, and Eisenhower Avenue) as the "spokes." Several crosstown routes also provide connections between destinations in the West End and northern Alexandria. The map below shows what is proposed for the New DASH Network starting in September 2021.[7]
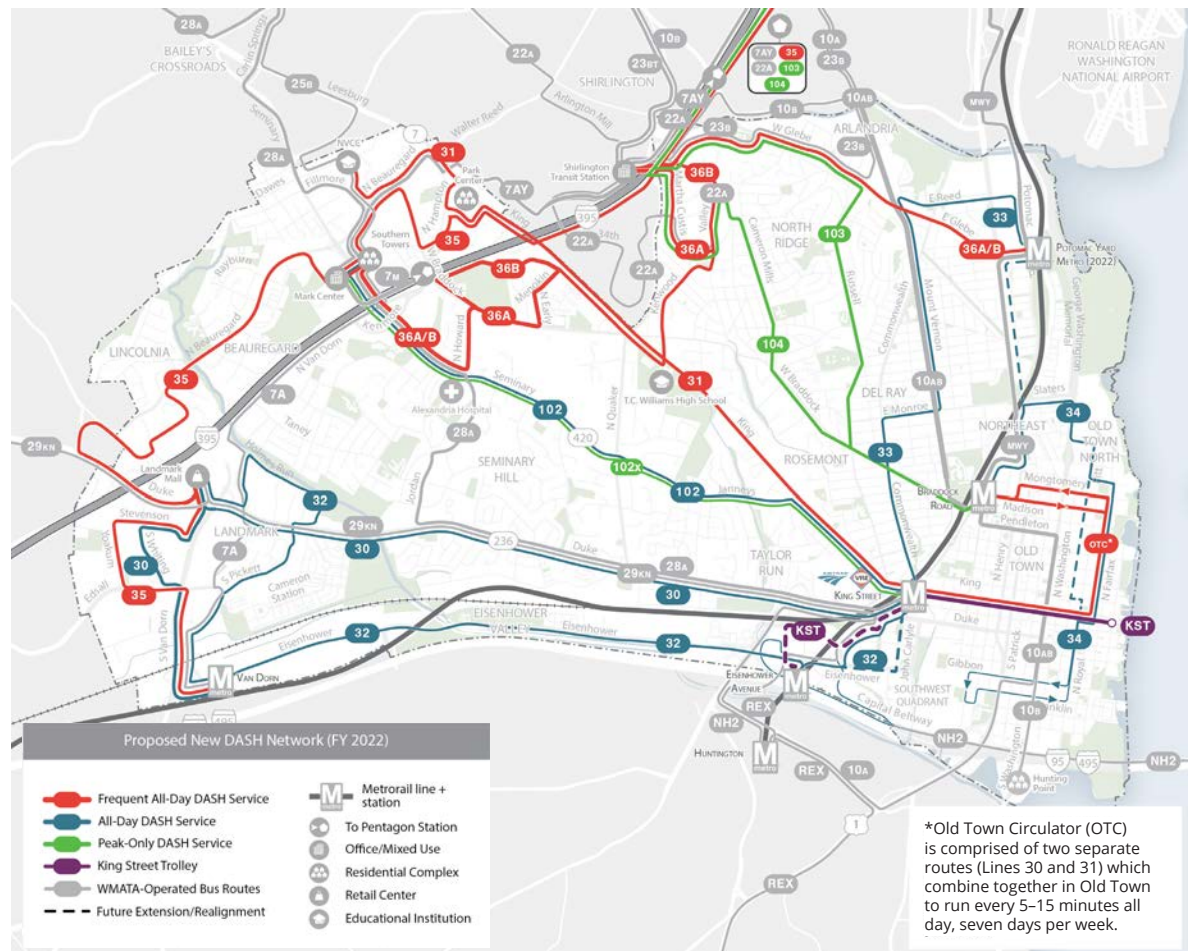
7. www.dashbus.com/newnetwork.

DOT Paratransit

DOT is the City of Alexandria's specialized, Americans with Disabilities (ADA)-compliant transportation service for Alexandria residents and visitors who are unable or find it difficult to use transit buses or rail.

Discounted Fare Programs

Previously, DASH buses were free for persons with disabilities through the DOT and MetroAccess programs and for all middle school and high school students. As of September 2021, DASH bus service is fare-free for all people using the bus in Alexandria.

Regional Coordination

Through the Northern Virginia Transportation Commission, the Washington Metropolitan Area Transit Authority (WMATA) Board, the Virginia Railway Express (VRE) Operations Board, and the Northern Virginia Transportation Authority, City officials and staff work with neighboring jurisdictions to coordinate and ensure that regional transportation needs are met. Alexandria and DASH staff coordinate with regional partners on topics such as regional corridor studies, seamless transit payments, and communication about regional service changes.

Policies

The Transit chapter policies will guide the City's decision-making around investments that will enhance ease of use, improve customer-friendliness, and increase ridership of DASH and WMATA transit services.

Policy A: Make transit greener and more useful

Build out a fast and reliable all-day transit network with frequent service that runs on electric buses and serves the entire city, with a focus on areas that will benefit the most Alexandrians, businesses, employees, customers, and visitors.

Per the Transit Vision Plan, the City is prioritizing route improvements in areas that will generate more ridership and better serve transit-dependent populations. The City will continue to prioritize service enhancements and initiatives in these areas, while ensuring that there are transit options citywide.

Policy B: Make transit easier to use

Increase transportation choices by reducing or eliminating barriers to taking transit.

To increase transit ridership, the City of Alexandria will be proactive and intentional in working to make transit simpler, less expensive, and more convenient.

The City of Alexandria and DASH are in the process of analyzing the use of electric buses and have c**ommitted to having a 100% zero-emissions fleet**. Recently, DASH has made significant progress towards electrification and was awarded $5.1 million for the purchase of six battery-electric buses and associated charging infrastructure in 2019, which have been placed into service. Additional improvements and upgrades at the DASH facility will continue to support the operation of the new electric buses and advancement towards full electrification.
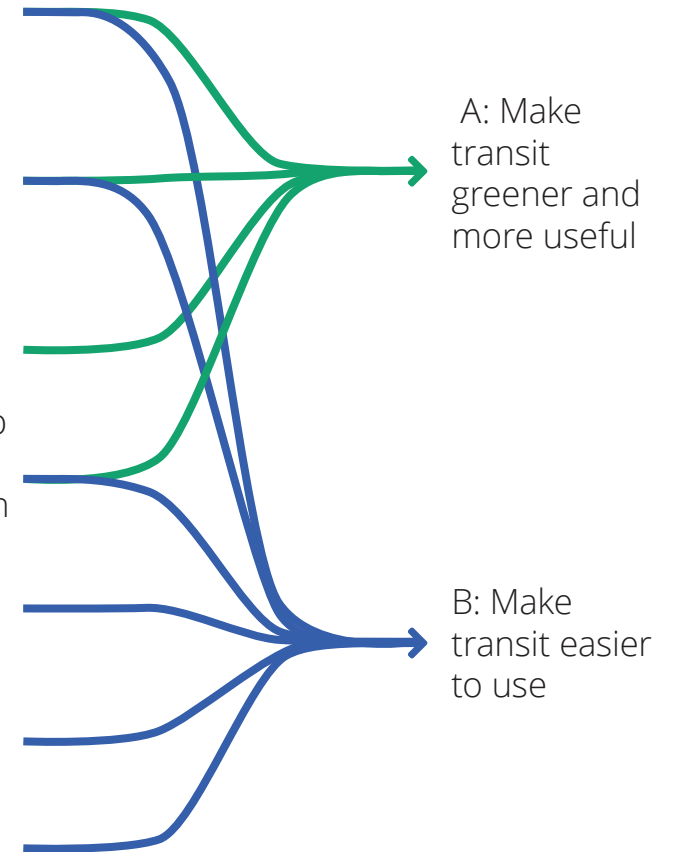
Strategies
That support policies

Policies
The City of Alexandria will...

1. Implement a citywide transit network with frequent, all-day service

2. Build out the city's priority transitway corridors and identify improvements on congested, high-ridership corridors to reduce travel times and improve reliability

3. Transition the City's bus fleet to fully electric, zero-emission vehicles

4. Improve the rider experience from trip planning, to accessing the stop, riding the bus, and arriving at the destination

5. Evaluate DASH's fare free service and continue to explore low-income WMATA fares

6. Support a better-connected regional transit network

7. Modernize the paratransit program for the city's aging population

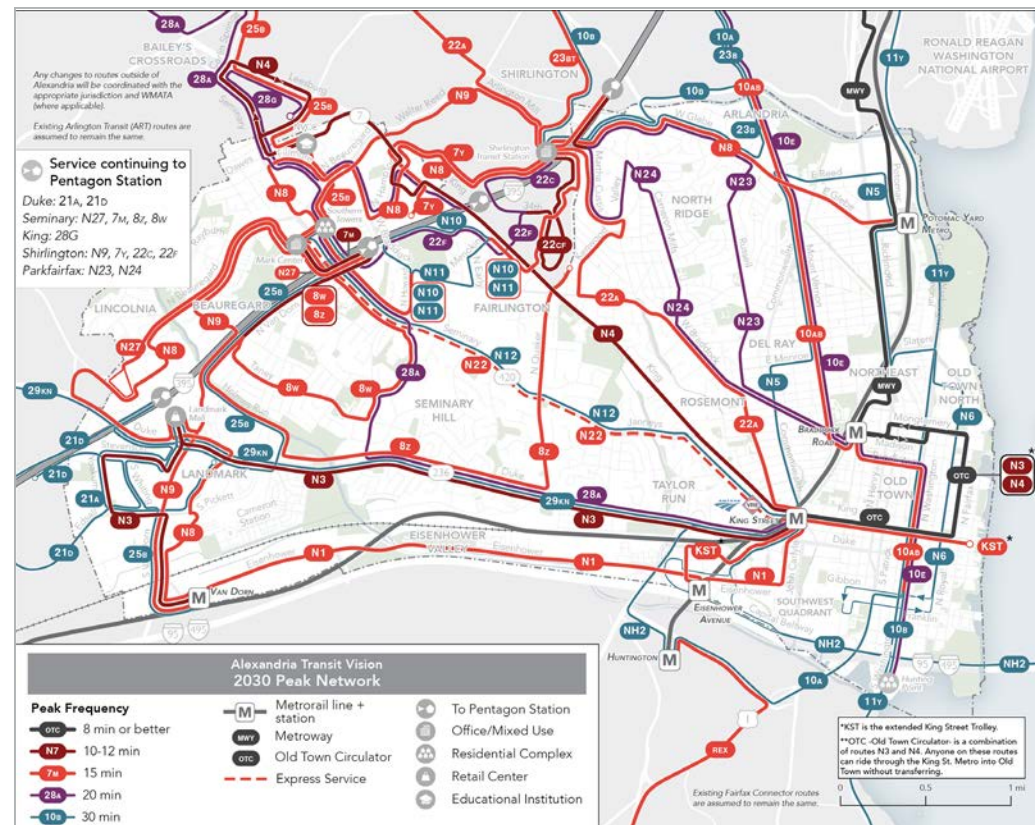A: Make transit greener and more useful

B: Make transit easier to use

Strategies

Strategy 1. Implement a citywide transit network with frequent, all-day service

Actions

- Begin implementing the New DASH Network[8] in Fiscal Year 2022
- Work with DASH's Advisory Committee and other members of the community to regularly gain input about service changes and implementation
- Seek funding for both the operations and capital improvements necessary to incrementally implement the 2030 network and improvements recommended in the Transit Vision Plan

2030 Peak Transit Network

Addressing the Need

To make the system more useful for everyone and to have the greatest likelihood to increase ridership, a more frequent, all-day network will be important.

Service during off-peak hours and weekends can be limited and present a barrier to those choosing to or needing to use transit to access jobs and opportunities.

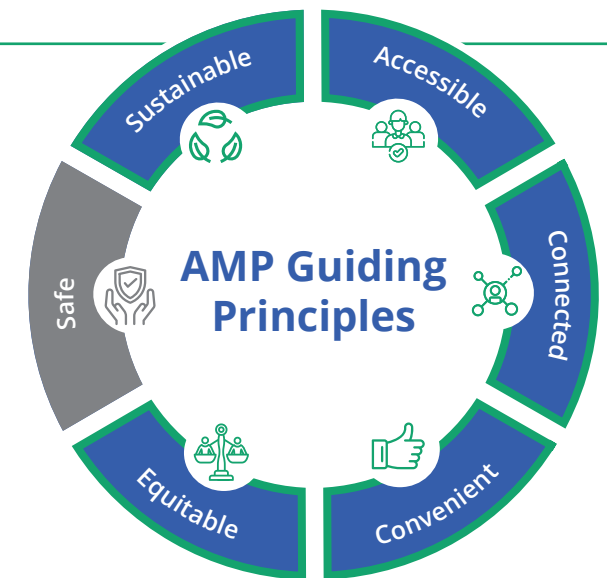## Advancing City Plans and Goals

Alexandria Transit Vision Plan

- 2030 Vision Plan Network
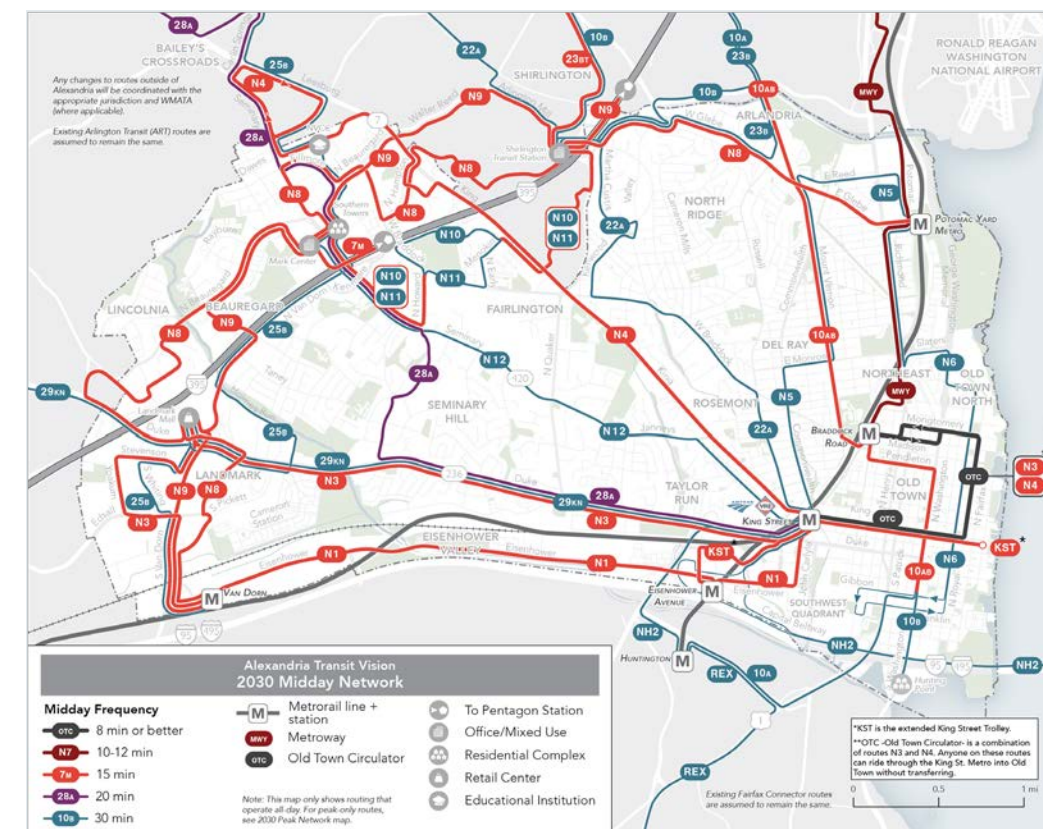
Environvmental Action Plan 2040

- Improve and Expand Low Carbon Options such as Transit, Bikes, and Walking

City Strategic Plan

- Multimodal Component and Goals

2030 Midday Transit Network

8. www.dashbus.com/newnetwork.

Strategy 2. Build out the city's priority transitway corridors and identify improvements on congested, high-ridership corridors to reduce travel times and improve reliability

Actions

- Collaborate with the community to develop a design for Duke Street that informs the construction of the Duke Street Transitway

- Advance the design and construction of the West End Transitway and evaluate its success to determine whether dedicated lanes or other methods to improve speed and reliability are needed

- Explore connecting Alexandria's transitways with high-capacity transit corridors in Fairfax County to help create a more reliable and efficient regional bus network

- Extend the dedicated infrastructure for the Route 1 Metroway corridor to connect to the new Potomac Yard Metrorail station and into Arlington

- Evaluate transit signal priority, queue jumps, high-occupancy vehicle lanes, and other operational or street design improvements/pilot projects on corridors with frequent and congested bus service

A transitway (also known as a busway or bus rapid transit) is a high-quality bus-based transit system that delivers **fast, frequent, comfortable, and cost-effective service**. With dedicated lanes or preferential treatment on streets, a transitway can contain features similar to a light rail or metro system with greater reliability and speed, avoiding traffic-related delays that typically slow down regular bus service.

Addressing the Need

The City is planning for future growth around the urban edges of Alexandria, which will increase demand for high-quality, high-capacity transit.

Alexandria has made progress on the three transitway corridors, but there is still work to be done.

Many people do not use the current transit system because it is often slow and unreliable.

Those who take the bus reduce the number of vehicles on the roadway, yet are stuck in the same traffic as everyone else; unlike Metrorail, which operates in its own right-of-way.

Transitway Corridors

— Metroway (Existing)

— Duke Street Transitway (Future)

— West End Transitway (Future)

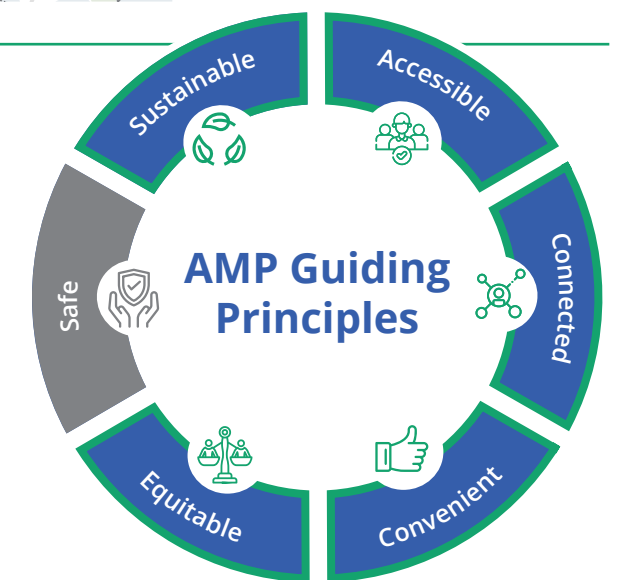## Advancing City Plans and Goals

Alexandria Transit Vision Plan

- 2030 Vision Plan Network

Environmental Action Plan 2040

- Improve and Expand Low Carbon Options such as Transit, Bikes, and Walking

City Strategic Plan

- Multimodal Component and Goals

AMP Guiding Principles — Sustainable, Accessible, Connected, Convenient, Equitable, Safe

Strategy 3. Transition the City's bus fleet to fully electric, zero-emission vehicles

Actions

- Move forward with the recommendations outlined in the DASH Zero-Emission Bus Implementation Plan to continue the transition of the City's fleet to all electric
- Make DASH an eligible direct federal grant recipient to broaden the available funding for the transition to zero-emissions buses
- Monitor emerging technology benefits and tradeoffs

Addressing the Need

Transportation is the second-largest source of greenhouse gas (GHG) emissions in the region.

The City Council has declared a climate emergency and efforts like these will help support resiliency.

The City has a goal of reducing GHG emissions 50% by 2030 and 100% by 2050.
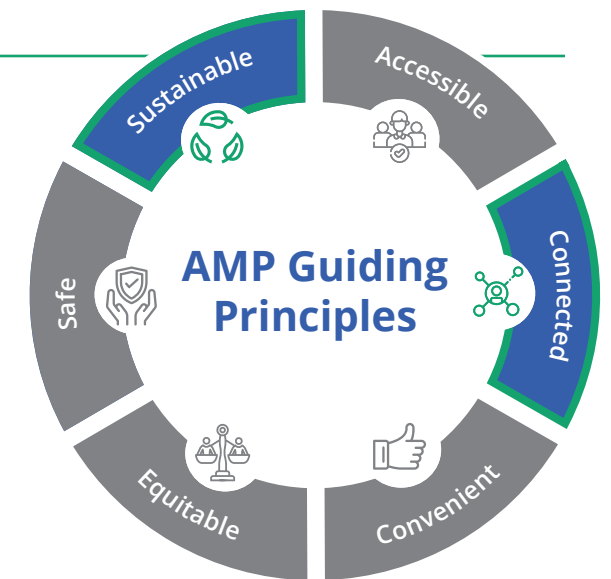
Advancing City Plans and Goals

Alexandria Transit Vision Plan

- 2030 Vision Plan Network

Environmental Action Plan 2040

- Improve and Expand Alexandria's Public Transit System

In 2021, DASH received **six battery-electric buses and fast chargers** through the Volkswagen Environmental Mitigation Trust, as well as statewide transit capital funding to test the technology. DASH also has secured grant funding for **20 additional electric buses** and to **expand and upgrade its facility** to accommodate this new fleet of electric buses by 2025.

Strategy 4. Improve the rider experience from trip planning, to accessing the stop, riding the bus, and arriving at the destination

Actions

- Upgrade the existing fleet and change fleet specifications on future bus orders to improve the health, safety, and comfort of drivers and passengers during the COVID-19 pandemic and beyond, including driver partitions, air flow improvements, and real-time rider notifications of bus crowding levels

- Build in options for storage of large items such as strollers or groceries and enact rider policies to encourage families to use transit

- Promote real-time tracking and bus priority technology to enable easier and more reliable trip planning and vehicle tracking for customers

- Ensure all bus stops are fully accessible per the Americans with Disabilities Act (ADA) and consider opportunities to improve access to bus stops through improving sidewalk, bicycle, and ramp connections

- Expand implementation of bus stop amenities including shelters, real-time signage, seating, lighting, and natural amenities to improve comfort and safety

Addressing the Need

The opportunity exists to enhance the transit journey—not just while riding, but during route planning, waiting at bus stops, and transferring between routes.

> As indicated during Alexandria Mobility Plan focus group meetings, **integrated mobile applications** and/or signs with **real-time information** are in high demand and would give users confidence in opting for transit.

Traveling to and waiting at bus stops is often expressed as a concern, especially among elderly and female riders. Greater investment in bus stop amenities such as shelters and lighting—including sidewalks and bike lanes that connect to bus stops—will help improve the transit journey for existing and future transit riders.[9]

Advancing City Plans and Goals

Alexandria Transit Vision Plan
- Capital Improvements, Bus Replacement, and Fleet Expansion

Environmental Action Plan 2040
- Improve and Expand Alexandria's Public Transit System

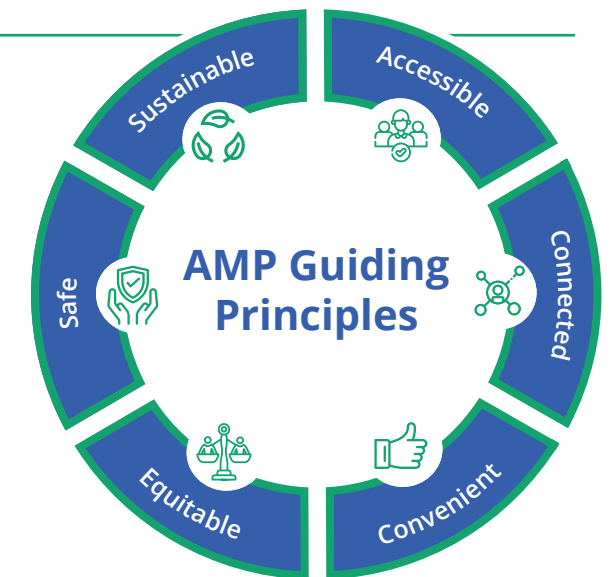### *Smart Mobility Framework Plan*
- Install Information Displays at Bus Stops

Age Friendly Plan For A Livable Community
- Provide Safe, Reliable, and Frequent Transit

Complete Streets Policy and Design Guidelines

Vision Zero Action Plan

AMP Guiding Principles

Sustainable · Accessible · Connected · Convenient · Equitable · Safe

9. Who's on Board: How to Win Back America's Transit Riders, TransitCenter, 2019.

Transit | 17

Strategy 5. Evaluate DASH's fare free service and continue to explore low-income WMATA fares

Actions

- Monitor outcomes of implementing free fares on DASH
- Identify funding sources for long-term sustainability of a DASH fare free program
- Explore low-income fare products for WMATA services

The **Transit Ridership Incentive Program**—managed by the Virginia Department of Rail and Public Transportation—is a new statewide grant program dedicated to **improving transit's regional connectivity** in urban areas with a population in excess of 100,000 and **reducing barriers to transit** use by supporting low-income and zero-fare programming.
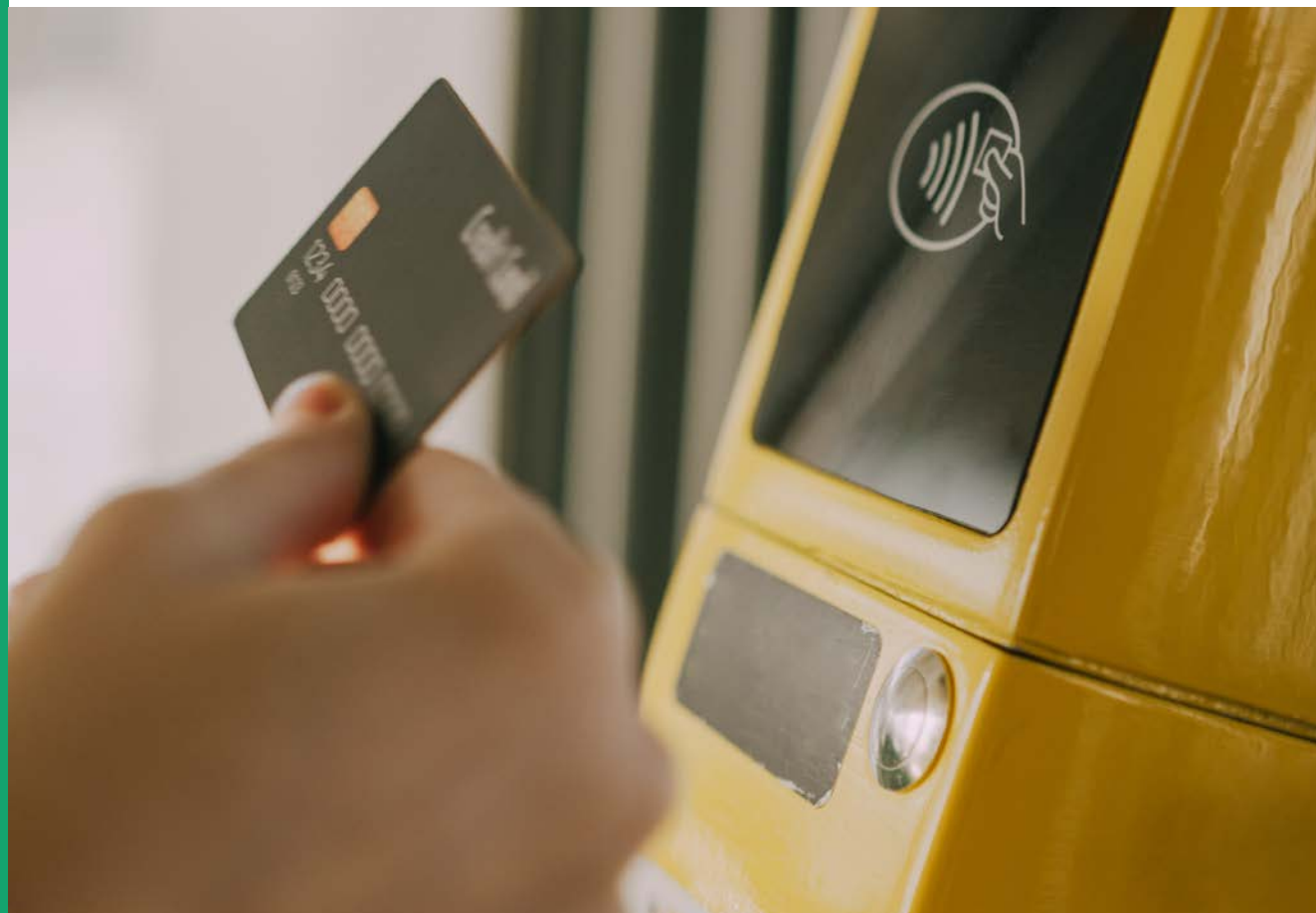
Addressing the Need

For some, fares present a financial obstacle to using transit. For example, more than 30 percent of Alexandria Metrobus riders have an annual household income of less than $30,000.[10] This obstacle makes it more expensive to access regional jobs and services.

A 2020 grant from the Metropolitan Washington Council of Governments to analyze different fare structures that benefit low-income riders has informed the City's plans for changes to fare structure.
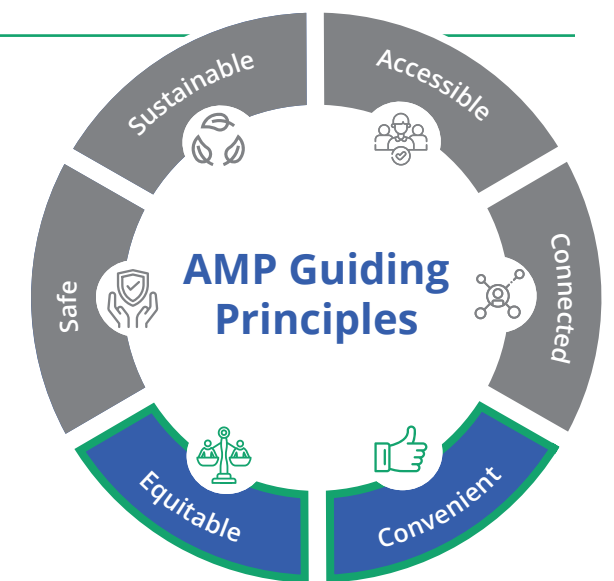
Advancing City Plans and Goals

Alexandria Transit Vision Plan

- Increasing Transit Access for Low-Income Alexandrians

Environmental Action Plan 2040

- Improve and Expand Alexandria's Public Transit System

AMP Guiding Principles

Sustainable • Accessible • Connected • Convenient • Equitable • Safe

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Strategy 6. Support a better connected regional transit network

Actions

- Support the development of mobile payment and trip planning applications that are compatible between Washington Metropolitan Area Transit Authority (WMATA), Virginia Railway Express (VRE), Maryland Area Rapid Commuter (MARC), and Alexandria Transit Company (DASH) services

- Collaborate with WMATA and neighboring jurisdictions to enhance connectivity to major activity centers and develop a more coordinated, useful regional transit system as part of WMATA's Bus Transformation Project implementation and Bus Network Redesign

- Enhance connections to support future rail expansion, water transportation expansion, and future regional bus rapid transit corridors

Several ongoing initiatives are examining the possibility of making **expanded commuter and intercity rail options** a reality in the future. The realization of "regional" or "through-running" rail (i.e., trains from Virginia that travel to Maryland without requiring a transfer at Washington Union Station and vice versa) holds the potential to better connect Virginia with Washington, DC, Maryland, and beyond, **unlocking new access to jobs and opportunities across the region.**


Credit: Virginia Railway Express

Addressing the Need

Demand for travel is not restricted to individual city, county, or state boundaries, especially in the Washington metropolitan region. A better-connected regional transit network will meet the need of travelers to get to more destinations across the region in a seamless, efficient, and convenient manner.

Advancing City Plans and Goals

Environmental Action Plan 2040

- Improve and Expand Alexandria's Public Transit System

AMP Guiding Principles: Sustainable, Accessible, Connected, Convenient, Equitable, Safe
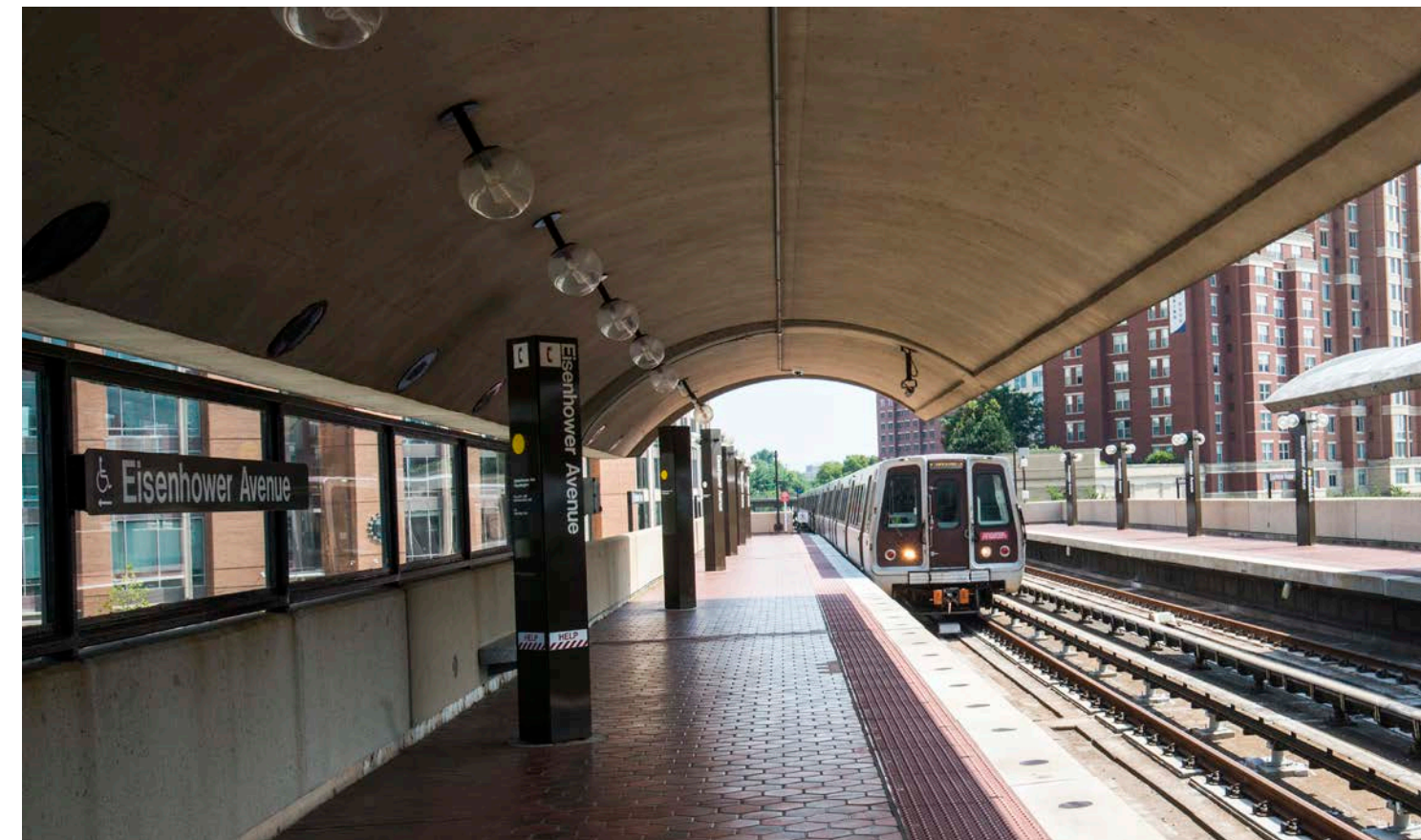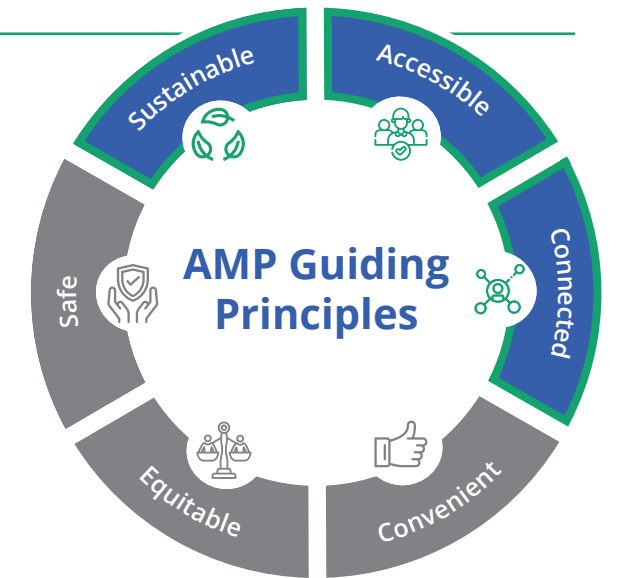
Strategy 7. Modernize the paratransit program for the city's aging population

Actions

- Develop more customer-friendly service that is scalable for increased demand
- Identify opportunities to improve cost-effectiveness for long-term program management for DOT Paratransit and MetroAccess services
- Explore partnerships with existing City services, neighboring jurisdictions, and on-demand service providers to improve the effectiveness and efficiency of serving the travel needs of seniors and persons with disabilities

Addressing the Need

Paratransit programs have not changed considerably over the last 10 years.

These programs are costly and will only get more expensive as the number of elderly and disabled residents are anticipated to increase.

There are opportunities to make the programs more efficient while improving the customer experience.

Paratransit provides transportation services under the ADA to individuals with disabilities that prevent them from being able to use traditional transit routes or vehicles. DOT is the City of Alexandria's specialized paratransit program that provides services to qualified passengers to help them get where they need to go. In an average month, the City's DOT paratransit program provides about 5,500 rides.

Advancing City Plans and Goals

Age Friendly Plan For A Livable Community

- Provide Safe, Reliable, and Frequent Transit
- Communication About Programs and Services Available to Older Alexandrians and Adults with Disabilities

AMP Guiding Principles — Sustainable, Accessible, Connected, Convenient, Equitable, Safe
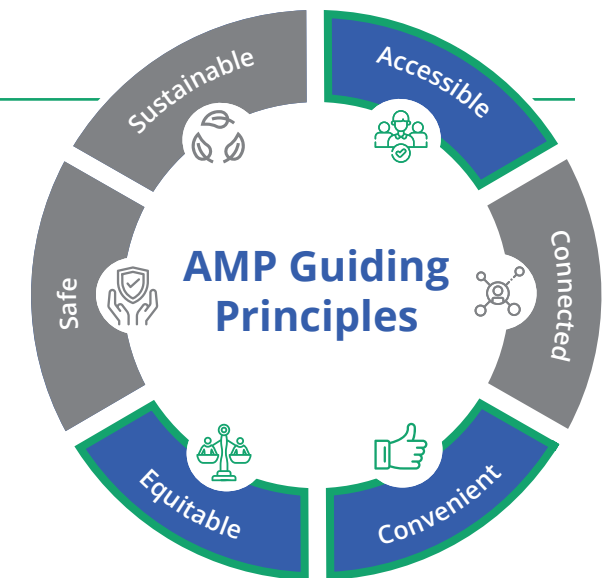
Metrics

The strategies and policies in this chapter are intended to move the needle on the following measurable metrics. Additional details on metrics, including applicable targets for future years, can be found in **Appendix II - Monitoring, Reporting, and Key Performance Indicators**.

Metric

Percent of residents within ¼ mile of 15 minute or better service
(All residents and low-income, people of color, and senior residents)

Percent of people taking transit to work (mode share)

Positive rating of ease of travel by public transportation (Resident Survey) *

Percent of bus stops with shelters

Percent of bus stops that are accessible for persons with disabilities

* The Alexandria Resident Survey reports results based on race/ethnicity, income, and age in addition to all residents.